

Beyond Gaming Disorder: Why Problematic Digital Behaviors Matter in Contemporary Psychiatry

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Abstract

Digital technologies have fundamentally transformed modern life, reshaping how individuals communicate, learn, work, seek healthcare, and maintain social relationships. While these advances have generated unprecedented benefits, psychiatrists are increasingly encountering patients whose excessive engagement with smartphones, social media, online gaming, streaming platforms, artificial intelligence (AI)-based conversational systems, and other digital environments contributes to significant psychological distress and functional impairment. Despite this growing clinical reality, only gambling disorder and gaming disorder have achieved formal recognition as disorders due to addictive behaviors, whereas many other problematic digital behaviors remain outside established diagnostic classifications. This discrepancy has created uncertainty regarding terminology, diagnosis, and management.

This viewpoint argues that the absence of formal diagnostic recognition should not delay clinical attention to problematic digital behaviors. Psychiatry has historically adapted to changing social environments, and the current digital revolution represents another such transition. Rather than debating whether every form of excessive technology use constitutes an independent psychiatric disorder, clinicians should adopt a pragmatic, patient-centered approach that focuses on impaired control, compulsive engagement, functional impairment, and associated psychiatric comorbidity. Emerging evidence from neuroscience, behavioral psychology, and digital psychiatry demonstrates that problematic digital behaviors share several mechanisms with recognized behavioral addictions, including dysregulation of reward processing, impaired executive control, maladaptive coping, and reinforcement learning.

Routine psychiatric assessment should therefore incorporate evaluation of digital behaviors as part of the standard psychosocial history. Future research should prioritize longitudinal studies, standardized assessment methods, culturally appropriate interventions, and ethical guidance regarding rapidly evolving digital technologies, particularly generative artificial intelligence. Psychiatry has an opportunity to move beyond the diagnostic debate and develop clinically meaningful approaches that recognize both the benefits and the risks of digital technologies.

Keywords: Digital Psychiatry; Problematic Digital Behaviors; Behavioral Addiction; Smartphone Use; Social Media; Artificial Intelligence; Gaming Disorder

Introduction

The twenty-first century has witnessed an unprecedented digital transformation that has altered nearly every aspect of human life. Smartphones, high-speed internet, social networking platforms, streaming services, online gaming, wearable technologies, and artificial intelligence have become integral to communication, education, employment, commerce, and healthcare. More recently, generative AI has introduced new modes of interaction through conversational agents capable of providing information, companionship, education, and emotional support. Collectively, these technologies have improved access to knowledge, increased global connectivity, and expanded opportunities for innovation [1,2].

However, the rapid integration of digital technologies into everyday life has also produced unintended psychological consequences. Mental health professionals increasingly encounter patients who report excessive smartphone use, compulsive social media engagement, prolonged gaming, binge-watching, online shopping, doomscrolling, and excessive reliance on AI-based conversational systems. These behaviors frequently coexist with sleep disturbances, anxiety, depression, reduced productivity, interpersonal conflict, emotional dysregulation, and impaired quality of life. Although not every instance of excessive digital engagement represents psychopathology, clinicians are increasingly challenged to distinguish adaptive technology use from clinically significant problematic behavior [3,4].

Current psychiatric classification systems only partially reflect this evolving landscape. Gambling disorder is recognized as a behavioral addiction in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), while gaming disorder has been incorporated into the International Classification of Diseases, 11th Revision (ICD-11) [5,6]. Nevertheless, problematic smartphone use, excessive social media engagement, compulsive online shopping, binge-watching, and AI-related dependence remain under investigation. The resulting diagnostic uncertainty has sometimes led clinicians to overlook digital behaviors during psychiatric assessment, despite growing evidence that these behaviors may significantly influence symptom severity, treatment response, and psychosocial functioning [7].

This viewpoint proposes that psychiatry should move beyond a narrow focus on diagnostic labels. The central clinical question is not whether every problematic digital behavior qualifies as an independent disorder but whether such behaviors contribute meaningfully to patient suffering, functional impairment, or maintenance of psychiatric illness. If they do, they deserve systematic clinical attention regardless of their current diagnostic status.

The diagnostic debate should not delay clinical action

Debates regarding the classification of problematic digital behaviors are scientifically important but should not become barriers to patient care. Throughout the history of psychiatry, diagnostic systems have evolved gradually in response to emerging evidence. Recognition of gambling disorder as a behavioral addiction followed decades of epidemiological, psychological, and neuroscientific research, while gaming disorder required years of international evaluation before its inclusion in ICD-11 [6,7]. Similar scientific scrutiny is now occurring for problematic smartphone use, problematic social media use, compulsive online shopping, and other forms of excessive digital engagement [8].

Importantly, absence from a diagnostic manual should not be interpreted as absence of clinical relevance. Psychiatry routinely evaluates phenomena that are not independent diagnoses but nevertheless influence assessment and treatment. Sleep disturbance, psychosocial stressors, maladaptive coping styles, loneliness, family conflict, and occupational burnout are all routinely explored because they shape mental health outcomes. Problematic digital behaviors deserve similar consideration.

Critics rightly caution against over-medicalizing everyday technology use. In an increasingly connected society, prolonged screen time alone cannot be equated with addiction. Many individuals spend substantial periods online because of educational, occupational, or healthcare requirements. Consequently, duration of use should never serve as the primary diagnostic indicator. Instead, clinicians should focus on loss of control, compulsive engagement, persistence despite harm, significant functional impairment, unsuccessful attempts

to reduce use, and emotional distress associated with digital behavior. These principles closely mirror the broader approach used in assessing substance-related and behavioral addictions [9].

A clinically meaningful framework should therefore emphasize function rather than frequency. Two individuals may report identical daily screen time yet differ substantially in psychological outcomes. One may use digital technologies productively for work or education, whereas another experiences deteriorating academic performance, sleep disruption, relationship conflict, and worsening anxiety because of compulsive online engagement. This distinction is central to avoiding both overdiagnosis and under-recognition.

From gaming disorder to a broader digital ecosystem

Recognition of gaming disorder represented an important milestone because it acknowledged that addictive processes may occur in the absence of psychoactive substances. However, the digital ecosystem has evolved far beyond online gaming. Modern digital environments integrate multiple highly rewarding activities within a single device, often accessed simultaneously through smartphones.

A single individual may alternate within minutes between social networking, streaming video, online shopping, gaming, financial trading, AI-assisted conversations, and short-video platforms. Each activity employs design features intended to maximize engagement, including algorithmic personalization, infinite scrolling, intermittent rewards, autoplay functions, push notifications, social validation metrics, and variable reinforcement schedules. These features capitalize on fundamental principles of reward learning and attentional capture that have long been recognized in behavioral psychology.

From a clinical perspective, this convergence challenges disorder-specific approaches. Patients rarely present with only one isolated problematic digital behavior. Instead, many exhibit overlapping patterns of excessive engagement across multiple platforms, suggesting that psychiatrists should evaluate digital behavior holistically rather than focusing exclusively on one application or technology. This broader perspective may better reflect contemporary patterns of technology use and facilitate more individualized clinical interventions.

Digital behaviors across psychiatric disorders: A transdiagnostic perspective

Problematic digital behaviors rarely occur in isolation. Instead, they frequently coexist with established psychiatric disorders, acting as precipitating, perpetuating, or maintaining factors. This transdiagnostic perspective has important implications for psychiatric assessment because digital behaviors may both reflect and influence underlying psychopathology. Rather than considering excessive technology use as an independent diagnostic entity in every patient, clinicians should evaluate how digital engagement interacts with the individual's psychological vulnerabilities and environmental stressors [10].

Depression illustrates this interaction well. Individuals experiencing depressive symptoms may increasingly rely on smartphones, social media, or streaming platforms to escape negative affect, alleviate loneliness, or avoid difficult life circumstances. Although these behaviors may provide temporary emotional relief, excessive digital engagement often disrupts sleep, reduces physical activity, increases social comparison, and reinforces social withdrawal, thereby maintaining depressive symptoms [11]. Conversely, algorithm-driven exposure to idealized lifestyles and constant social comparison may contribute to low self-esteem and hopelessness in vulnerable individuals.

A similar bidirectional relationship exists with anxiety disorders. Individuals with generalized anxiety disorder, social anxiety disorder, or panic disorder may repeatedly seek reassurance through online searches, social networking platforms, or digital communication. Continuous connectivity may temporarily reduce uncertainty but ultimately reinforces reassurance-seeking behaviors and anxiety. Fear of Missing Out (FoMO) has emerged as a particularly important mechanism linking anxiety with excessive smartphone and social media use [12].

Attention-deficit/hyperactivity disorder (ADHD) represents another important area of overlap. Difficulties with impulse control, reward sensitivity, and delayed gratification may increase susceptibility to excessive gaming, social media engagement, and short-video platforms that provide rapid and continuous reinforcement. Several studies have reported higher rates of problematic internet use and gaming disorder among individuals with ADHD, suggesting that clinicians should routinely inquire about digital habits during assessment [13].

Sleep disturbance provides another important clinical example. Excessive evening exposure to smartphones, social media, streaming platforms, and gaming has been associated with delayed sleep onset, shorter sleep duration, poor sleep quality, and daytime fatigue. Blue-light exposure, emotional arousal, and prolonged cognitive stimulation collectively contribute to circadian disruption. Poor sleep, in turn, exacerbates depression, anxiety, emotional dysregulation, and cognitive impairment, creating a self-perpetuating cycle [14].

Problematic digital behaviors may also complicate the management of obsessive-compulsive disorder, eating disorders, substance use disorders, and psychotic disorders. Patients with obsessive-compulsive symptoms may engage in compulsive checking behaviors or repetitive online reassurance seeking. Individuals with eating disorders may experience increased exposure to unrealistic body ideals through social media. In psychotic disorders, digital misinformation, online harassment, or excessive engagement with AI-generated content may influence symptom expression or distress in susceptible individuals. Although these relationships require further investigation, they reinforce the importance of comprehensive digital history taking within routine psychiatric practice.

Artificial intelligence: The next frontier in digital psychiatry

The emergence of generative artificial intelligence represents one of the most significant technological developments in contemporary mental health. AI-powered conversational systems are increasingly used for education, productivity, companionship, emotional support, and health-related information. Their accessibility, responsiveness, and personalization make them attractive tools for many individuals.

From a psychiatric perspective, AI presents both opportunities and challenges. Conversational systems may reduce barriers to information, encourage help-seeking, and complement traditional mental healthcare. At the same time, concerns have emerged regarding emotional dependency, anthropomorphism, excessive reliance on AI-generated advice, and gradual displacement of real-world interpersonal relationships [15].

Unlike traditional social media, AI systems actively participate in conversations, respond empathetically, remember previous interactions, and adapt responses according to user preferences. These characteristics may strengthen emotional attachment in vulnerable individuals. Although current evidence remains limited, clinicians should remain attentive to excessive reliance on AI systems among patients experiencing loneliness, grief, depression, autism spectrum conditions, or social anxiety. Future research should determine whether problematic AI engagement represents an extension of existing digital behaviors or an emerging clinical phenomenon requiring distinct conceptualization.

Implications for clinical practice

The digital transformation of society necessitates corresponding changes in psychiatric assessment. A routine mental status examination should increasingly be complemented by a structured exploration of digital behavior. Questions regarding smartphone use, gaming, social media engagement, streaming habits, online relationships, sleep hygiene, exposure to cyberbullying, financial losses related to online activities, and AI use may provide clinically relevant information that influences diagnosis and treatment planning.

Importantly, assessment should emphasize quality and consequences of digital engagement rather than screen time alone. Excessive duration of use does not necessarily indicate psychopathology. Instead, clinicians should evaluate loss of control, persistence despite adverse consequences, unsuccessful attempts to reduce use, interference with occupational or academic functioning, deterioration of interpersonal relationships, and emotional distress associated with digital behaviors [16].

Management should remain individualized and multidisciplinary. Psychoeducation regarding healthy technology use, sleep hygiene, digital well-being strategies, family involvement, cognitive behavioral therapy, and treatment of underlying psychiatric disorders remain central components of care. Restrictive “digital detox” approaches alone are unlikely to produce sustained benefit unless broader psychological vulnerabilities are simultaneously addressed.

Public health and policy implications

The rapid expansion of digital technologies has created a public health challenge extending beyond individual clinical encounters. Children and adolescents now experience continuous exposure to highly engaging digital environments during critical periods of cognitive and emotional development. Educational institutions, families, healthcare professionals, technology companies, and policymakers therefore share responsibility for promoting healthy digital behaviors.

Digital literacy should extend beyond technical competence to include emotional regulation, critical evaluation of online content, awareness of persuasive design strategies, responsible AI use, cyber safety, and balanced technology habits. Public health campaigns should emphasize healthy engagement rather than portraying technology itself as inherently harmful.

For countries such as India, where smartphone ownership and internet connectivity continue to expand rapidly, integrating digital behavior assessment into primary care and mental health services may represent an important preventive strategy. Future national mental health programs should incorporate digital well-being alongside traditional health promotion initiatives.

Conclusion

Psychiatry stands at an important crossroads. Digital technologies have transformed human behavior more rapidly than psychiatric classification systems have evolved. While debates regarding diagnostic terminology remain important, they should not delay recognition of clinically significant problematic digital behaviors. The evidence increasingly suggests that excessive digital engagement interacts with multiple psychiatric disorders, influences treatment outcomes, and contributes to functional impairment in susceptible individuals.

Rather than asking whether every problematic digital behavior constitutes a new psychiatric disorder, clinicians should ask a more practical question: Does this digital behavior contribute to the patient’s distress, disability, or persistence of illness? If the answer is yes, it deserves systematic assessment and appropriate intervention.

The future of psychiatry will require integration of digital psychiatry, neuroscience, behavioral science, and public health. Routine assessment of digital behaviors, development of standardized clinical guidelines, ethically informed use of artificial intelligence, and culturally sensitive research should become priorities for clinicians, researchers, and policymakers. Moving beyond the diagnostic debate toward clinically meaningful engagement with patients’ digital lives represents an important opportunity to modernize psychiatric practice while maintaining its core commitment to patient-centered care.

Ethical Approval

Not applicable. This article is a view point based on secondary data and published literature.

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Authors’ Contributions

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Conflicts of Interest

There are no conflicts of interest.

Declaration on Use of Artificial Intelligence (AI)

The author acknowledges the use of generative artificial intelligence tools (ChatGPT, OpenAI) to assist in language refinement, structural organization, and drafting support. The author takes full responsibility for the conceptualization, interpretation of evidence, critical analysis, and final content of the manuscript. All referenced data were independently verified from publicly available sources. The AI tool did not generate original data, conduct analysis, or determine conclusions.

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