

Screen Addiction: A Threat to the World, Specially to Children

Dr. Monisha Biswal*

*Assistant Professor, Ganjam Law College, Berhampur (Odisha) INDIA

“Addiction is a prison where you are both the suffering prisoner and the cruel warden; every addiction, without exception, enslaves the mind and damages the soul.”

— Dr. Gabor Maté

Introduction - Screen addiction, marked by compulsive use of digital devices, poses a significant threat globally, including in India. Its physical, psychological, and social repercussions jeopardize individual and societal health. To combat this issue, implementing strict laws regulating screen time and encouraging healthier habits is essential. Legislation should set age limits for device access, mandate educational programs about excessive usage dangers, and require tech companies to limit addictive features. These actions can foster a safer digital space prioritizing well-being over unrestricted device use. (Jain et al., 2023). Children constitute the most vulnerable demographic; in India, approximately 56% of young people aged 5 to 16 suffer from problematic use and overuse of information and communications technology (Loganathan & Ramadurai, 2020). Illuminating the cultural environment in which Indian children develop, this chapter provides a crucial point of departure for subsequent investigation of screen addiction, health and education, parental mediation, industry responsibility, and policy responses.

Understanding Screen Addiction: Screen addiction is a behavioral addiction marked by compulsive and excessive screen use, affecting physical, psychological, and social health. Common symptoms include preoccupation with screens, withdrawal anxiety, increased tolerance requiring longer usage, inability to control use despite negative effects, mood changes, and neglecting previous interests. (Jain et al., 2023)(Moitra & Madan, 2022)

Adult global screen use averages more than 6 hours/day. Among children aged 10–15 years, 82.4% exceed recommended limits, 70% report addiction symptoms, and 68.1% exhibit social networking addiction (Ilamparithi, 2018). The following discusses addiction's effects on health and education.

Screen addiction is a compulsive, excessive use of screen devices, impacting users psychologically, emotionally, socially, and academically. Larry Rosen's "Virtual

Addiction" highlights the Internet's high addiction rating, making it a major global mental disorder. Continuous screen use leads to unhealthy habits, attention deficits, irritability, memory issues, and self-control loss. It alters a child's psychology, affecting their livelihoods and education, and causes sleep disturbances and reduced physical activity.

The world is highly digitalized, with human activities relying on devices. Children aged 8 to 18 spend an average of 4 hours and 44 minutes daily on screens, extending to over 6 hours with unstructured media. This may exceed averages in some areas. Children's awareness of screen time dangers is unclear, and the variety of apps and games can foster addiction. Research on internet influences in India is still limited. (Ishtiaq et al., 2021)

Impact of Screen Addiction on Children: The changing work environment has made gadgets essential, with increased reliance on mobile phones for TV, gaming, and social media. Children often imitate adults, underline the need for responsible behavior. Schools should manage screen time to limit mobile use, as monitoring is crucial to prevent addiction, especially among younger children affected by remote learning. Excessive screen time can hinder cognitive and emotional growth, leading to inactivity, sleep issues, obesity, and language delays. Parents must promote a balance of screen use and other activities, as many children lack awareness of responsible device use. Screen time can be addictive, causing anxiety and depression. With lower cellular data costs, India sees unprecedented access to screen media. While screens can aid in learning social skills, excessive use hampers real-life interactions and physical activity, with about 20% of children not exercising outdoors and 50% spending less than an hour outside daily, negatively impacting their health and educational success. (Jain et al., 2023)(Ilamparithi, 2018).(Moitra & Madan, 2022)(K. Y Kwong & Y.F Fong, 2019)(Hou et al., 2022)(S Nakshine et al., 2022)(Moitra & Madan, 2022)

While ICT fosters online exploration via apps and games, excessive smartphone usage raises concerns, especially in India's growing ICT user base born in the 2000s, leading to developmental challenges and parental

control issues. This addiction can hinder creativity, visual memory, and attention spans. Parental worries about uncontrolled ICT are valid. Addressing tech addiction needs systemic solutions for better child engagement management and parental oversight, utilizing TRIZ-based methods. Decreased parental guidance has shifted children's interactions with peers, changing developmental dynamics. (Loganathan & Ramadurai, 2020)

Cultural Context in India: Recent surveys have revealed that almost half of the children in the 5 to 15 age group who own a smartphone are engrossed in mobile games for more than two hours a day. Indian children spent more hours on mobile daily compared to their counterparts in other nations (Neethu, 2016). The entire media and entertainment industry in India, a significant portion of which is directed at children, witnessed a growth rate of 10.1% in March 2016 on a year-on-year basis, as reported by the Federation of Indian Chambers of Commerce and Industry. Critically, a considerable segment of this growth also emanates from the lower socio-economic strata.

Health studies indicate rising global screen exposure in children, particularly in India. A Bangladesh survey reveals significant smartphone, TV, and video usage. In India, 85% of urban, 62% of rural, and 74% of tribal children aged 3 to 18 engage with digital devices. Higher socio-economic status doubles the risk of excessive screen time, as devices serve as inexpensive 'babysitters.' Permissive caregivers grant young children screen access, while older kids are drawn to gaming, leading to increased usage among Indian youth. (Ishtiaq et al., 2021)(Jain et al., 2023)

India ranks second globally in mobile phone users, with about 1.14 billion in 2022, just behind China's 1.58 billion. Approximately 830.7 million are smartphone users, expected to grow to 973.6 million by 2027. Children depend heavily on digital media for school and play but often struggle with excessive usage. Parental guidance is crucial in reducing screen addiction among children aged 4-12, according to a study from 22 major Indian cities. Factors such as gender and age influence screen time, while screen addiction poses significant developmental and health risks for Indian children. (Ishtiaq et al., 2021)

The Indian attitude towards technology is complex. Indian youth eagerly adopt it for skills in global competition, yet for some, it serves as an escape from reality. For those without market access, it highlights a divide from tradition and a risk to simpler lifestyles. Perspectives on technology's influence vary by cultural background, modernity, income, and literacy. Young professionals use digital media for self-expression, while others see it as westernization. Older generations often view it as disruptive. Parents and authorities hold mixed opinions, reflecting the dual views on television's impact—negative versus cultural benefits. (Loganathan & Ramadurai, 2020)(Neethu, 2016)

Educational Implications: Excessive screen time negatively impacts children's academic performance,

affecting attention and focus physically and causing mental health issues. Schools are crucial in addressing this. Teaching digital literacy helps students navigate the digital world safely, easing the burden on parents and schools. (K. Y Kwong & Y.F Fong, 2019) Technological advancements have greatly benefited education during the COVID-19 pandemic by enabling interactive discussions and overcoming pandemic constraints. Reducing screen time by withdrawing these technologies is not practical. Promoting appropriate screen use and encouraging physical activity are crucial. Schools play a key role in spreading digital literacy among youth. While digital literacy initiatives can help address issues of increased screen time, sustained family and government support is essential for continued progress. (Moitra & Madan, 2022)(Ilamparithi, 2018)

Screen addiction negatively impacts children's academic performance by complicating screen time limits and increasing frustration when screens are unavailable. Excessive use diminishes engagement and focus in school, while high gaming hours contribute to stress, anxiety, and hindered success. Issues like fatigue and disrupted sleep from late-night gaming are common. Students with lax parental controls often underperform, highlighting the importance of supervision and digital literacy. Schools must foster responsible screen habits, while initiatives aim to mitigate distractions and support balanced youth development for future opportunities. (Mahmud et al., 2023).(K. Y Kwong & Y.F Fong, 2019)(Ilamparithi, 2018)

Digital literacy programmes can help combat screen addiction in children aged 11–12 by promoting a healthy relationship with digital content and addressing overuse risks. Children should aim for 2 hours of outdoor activity daily, including physical exercise three days a week, and have annual eye assessments. For those under 5, screen time should be limited to 1 hour daily, and screen-free mealtimes are encouraged. Parents should actively monitor usage, model good habits, and establish screen media rules. Encouraging family meals and indoor activities is essential. Policymakers in India need to reassess guidelines to tackle excessive screen time, sleep deprivation, and inactivity in adolescents. (Loganathan & Ramadurai, 2020)(J. Munsamy et al., 2022)(Moitra & Madan, 2022)

Parental Influence and Responsibility: Parents are increasingly aware of children's screen use. Children spend more time on screens than engaging with parents or in physical play. Parental guidance can help children develop good digital habits, reduce screen time, and convert virtual interest into outside activities. As co-users of screens, parents impact children's effective use of electronic media. Consequently, interventions to reduce inappropriate screen time should target both children and parents, encouraging alternative physical activities (Nwankwo et al., 2019).

Excessive screen use among children raises concerns for families and schools. Parental monitoring is lowest for video games, correlating with increased screen time and

addictive symptoms. Gaming adversely affects socialization and family bonding. Surveys show family meals enhance bonding and support social growth, reducing inequalities. Setting boundaries on screen use can help combat addiction, allowing users to feel in control. Parents and educators must establish reasonable limits on children's screen time to mitigate these risks. (Ishtiaq et al., 2021)(Ilamparithi, 2018)(Moitra & Madan, 2022)(Nwankwo et al., 2019)

The effectiveness of such measures depends on the cooperation of the media and technology industries. Companies can design services that incorporate recommended daily screen time limits and remind users when they have exceeded these thresholds. Enhancing content with harder-to-ignore safety warnings about dangerous side effects can improve message salience and encourage users to adopt healthy habits.

Nonetheless, establishing boundaries and guidelines constitutes a pragmatic approach for managing screen addiction, enabling individuals to balance engagement with their media environments while safeguarding their well-being (Loganathan & Ramadurai, 2020).

Encouraging alternative activities is essential as children gravitate towards screens. While they enjoy creative play, instant online satisfaction can detract from these activities. Families can foster hobbies like singing, dancing, and gardening during home confinement. Providing space can ignite curiosity beyond digital entertainment, regardless of financial limits. Parents can reduce sedentary screen time by enforcing media rules and encouraging indoor exercises like dancing and rope skipping. Families should use stay-at-home periods to share meals, model healthier habits, and strengthen bonds. The home setting often leads to inactivity and excessive screen time, leading parents to feel uncertain about managing usage and worrying about obesity. Guidance is needed to balance screen time, diminish sedentary behavior, and establish shared goals. Future research should focus on interventions replacing screen time with physical activities to enhance motivation and self-efficacy. (Moitra & Madan, 2022)(Nwankwo et al., 2019)

Government and Policy Responses: The proliferation of screens and widespread use of digital platforms have resulted in an escalating number of people addicted to these devices and technologies. Video gaming addiction is a contemporary issue, predominantly among children and young people. Policymakers face significant challenges in formulating effective responses. In other contexts, Hong Kong has implemented extensive initiatives, including educational campaigns and brief group interventions, aimed at promoting the appropriate use of digital and electronic devices among adolescents. These measures serve as pertinent examples for governmental and policy action elsewhere.

Research in Hong Kong emphasizes the urgent need

for policies tackling public health issues from excessive internet use, particularly among children and adolescents. Reports from the Centre for Health Protection (2011-2017) reveal alarming internet habits. Organizations such as Tung Wah Group of Hospitals and Hong Kong Christian Service offer integrated treatment and online counseling for addiction and mental health problems. Problematic video gaming is acknowledged as a global health issue, prompting action in countries like China. Promoting parental education and positive youth development is crucial to combat addiction, as excessive screen time endangers children's health, according to experts like the AAP and WHO. The UK has initiated public health campaigns for managing screen time while India is beginning to implement WHO guidelines. (Chung et al., 2018)(Ishtiaq et al., 2021)(Jain et al., 2023)

To address children's screen addiction, the government must adopt critical policies. First, revise Internet regulations to create safer spaces. Second, provide training and health promotions to assist those struggling with Internet use, focusing on management strategies and raising mental health awareness. Third, improve public support systems for addiction treatment. Fourth, implement practices for Internet-related harm management, including safe social media education. Lastly, monitor global youth Internet use to identify addiction early. In India, Internet addiction affects an estimated 5% to 10% of users, linking increased use to higher college dropout rates, with Ahmedabad studies indicating a strong connection between addiction and mental health issues like depression and anxiety. (K. Y Kwong & Y.F Fong, 2019)

An investigation into internet addiction prevalence was conducted among high school students in Madhya Pradesh and Chhattisgarh. This research aimed to clarify internet usage patterns, assess socio-demographic influences, and measure addictive behaviors. Internet addiction is a significant issue affecting many. While the internet is beneficial for information and communication, excessive leisure use can result in serious addiction if not managed. (Kumar Sahu et al., 2018)

Technology Industry's Role: Technology companies must address screen addiction by promoting digital wellness and supporting mental health. The government's role is essential in encouraging tech firms to implement changes, while parental oversight is crucial for managing screen time. Screen addiction adversely impacts mental and physical health and education. Identifying benefits amidst pervasive screen use is challenging. India's government is developing regulations for screen usage, requiring comprehensive policies to help screen addicts. Effective management must balance monitoring screen time with privacy rights, potentially needing access to personal data, which younger generations may accept. Establishing safe internet and TV limits requires collaboration among local communities, schools, parents, and the tech industry. (K. Y Kwong & Y.F

Fong, 2019)

Technology companies must address the impact of their products on users, particularly concerning screen addiction, yet interventions are insufficient. Designing products with children's developmental needs in mind fosters learning and safety. Research supports the creation of genuine experiences for children. While companies like Google and Facebook have made strides in developing kid-friendly platforms, stronger commitments to tackle screen addiction are essential. J. P. Floridi's framework on behavioral addiction helps differentiate addiction levels and content, aiding in identifying harmful behaviors. Digital assistants offer limited help, revealing the need for proactive government regulation to define addiction and manage risks effectively. (Langvardt, 2019)

Concern over children's screen addiction highlights the need for tech that encourages healthy use. Despite health features, addiction rates increase. Custom apps can manage screen time and promote positive interactions. Key features include inactivity alerts, parental controls, and usage reports for parents. Since peers impact children's choices, collective use of these technologies may help lower addiction levels. (Loganathan & Ramadurai, 2020) (Nwankwo et al., 2019)

Parents significantly influence healthy screen use in children through their perceptions and monitoring practices. Screen time concerns vary with family circumstances; children of less educated parents or living in rented homes have higher screen use. Families without household rules see 1.60 times more excessive screen use, with 80% of kids without rules watching TV freely and 90% after 20:00, compared to under 20% in rule-abiding families. (K. Y Kwong & Y.F Fong, 2019)

Case Studies: Screen addiction is a growing global concern, prompting the need for intervention models. This paper uses case studies to illustrate addressing digital addictions in children through government policies, school systems, teacher guidelines, and tech collaborations. In India, over the past decade, government guidelines have promoted digital and media literacy, offering schools practical strategies to manage screen time. However, schools must adopt adaptive teaching methods that keep up with technological advancements, as such models remain underexplored both in India and globally. The paper outlines relevant frameworks and presents a new model based on extensive media analysis. (Loganathan & Ramadurai, 2020)(Moitra & Madan, 2022)

The search focused on key phrases like "screen addiction," "screen time," "digital addiction," and others related to children, technology, and mental health in Google Scholar and Google Search. The search was conducted monthly, covering 2021 and 2022 for diversity. Quantitative studies were excluded due to the lack of grounding in data for much media rhetoric on digital addiction. Nevertheless, the insights gained formed a solid foundation for developing

more ideas and models.

Many countries, including India, are addressing screen addiction in children. e-Nurture Limited started Digital-Detox Camps for life-skills development and reducing device use. The Centre for Media Studies promoted healthy media interactions. In Hyderabad, the iCARE project engaged students, parents, and teachers in 50 government schools from 2015 to 2017. A study showed digital detox camps led to a 60% reduction in daily screen time for participants. During the pandemic, children's sedentary behavior doubled due to increased screen time and reduced public transport use, causing older youth to rely more on cars. Indian studies highlight worsened sleep and psychological issues among children during COVID-19. While about 60% of children meet physical activity guidelines, wealthier youth tend to participate more in organized sports. Adolescents in high-income countries are generally more active. Policymakers need effective interventions to boost physical activity, reduce sedentarism, and promote active transport, incorporating community input for better risk management. (Moitra & Madan, 2022)(Loganathan & Ramadurai, 2020)

Future Trends: Future entertainment technologies—augmented reality, virtual assistants, and brain-computer interfaces—will likely increase children's screen time and lower the age of introduction. Media will become realistic and immersive, often competing with outdoor activities. Impact on screen time varies by digital literacy and socio-economic status, raising concerns about children's well-being, especially in India. (Loganathan & Ramadurai, 2020)(Jain et al., 2023)(Moitra & Madan, 2022)

The rise of screen-based devices has created societal issues, notably screen addiction affecting all ages, particularly children. In countries such as India, where digital devices are widespread, children encounter substantial risks associated with this addiction, influenced by social factors and device accessibility. Analyzing contemporary Indian culture is crucial for tackling the causes and obstacles of screen addiction. The article examines screen addiction traits and assesses the effects of cultural and socio-economic elements on Indian children, emphasizing challenges from the constant presence of digital devices. Recent developments in digital technology have made exploring culture easier, especially through on-demand web streaming of videos and documentaries, even during commutes. The shift from cable to OTT platforms, particularly Video-on-Demand, has altered viewing habits. However, challenges like channel overload and binge-watching contribute to addiction, stress, and disrupted sleep. Though it enhances real-time experiences, digital evolution poses psychological challenges that threaten mental well-being, leading to issues, especially among youth. (Chandra et al., 2023)

Emerging technologies for entertainment (playscape, TV, games, smartphones, social networks, video-on-demand, virtual reality, video-conferencing, augmented

reality, digital learning, metaverse) are popular among children, driven by global and Indian smartphone usage. The rising demand for telepresence highlights the significance of AR, MR, and VR in future multimedia services, as seen with Oculus and HoloLens. This trend will shift children's screen time from traditional media to innovative platforms, supported by India's vast digital landscape—over 700 million internet users and nearly 900 million mobile users—which is likely to enhance these developments. (Ishtiaq et al., 2021)(Jain et al., 2023)

Conclusion: Screen time has increased phenomenally among children globally in general; and in India, in particular, the demand for internet and video games has grown exponentially. New applications and websites have hooked youngsters to the internet in a broad spectrum of activities such as gaming, surfing, chatting, gambling, shopping, video calling, social networking and online learning. An addictive pattern to the internet and ICCs has developed in many youngsters globally and / or in India. The symptoms of screen addiction include loss of control, withdrawal, preoccupation, mood modification, and development of tolerance (Loganathan & Ramadurai, 2020). Children are the most vulnerable to screen addiction and its dangerous fallout such as depression, isolation, and adverse health effects. The Indian cultural ethos encourages strong parental supports and close-knit family characteristics that place the youngsters on a value track as well as on a track of effective monitoring and counseling. It is therefore essential to understand the India-specific profile of screen usage for framing effective policies and action plans for handling the menace and safeguarding the health of Indian children (Moitra & Madan, 2022). Children using screens and internet for extended hours and consuming highly inappropriate content on a continuous basis is not without harm. Deleterious impact has been confirmed on their social, physical and mental wellbeing as well as on the quality of learning and overall academic performance. This also damages the plot of the culture and the ethos of our great civilisation. Screen addiction is addictive because it triggers off a parasympathetic nervous system response similar to the effect of relaxation drugs, alcohol, and tobacco products. Besides medical guidelines, the problem calls for active interventions by the schooling system, curriculum design, parents, guardians and statutory bodies at the national and regional levels.

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