Tech Talk
Screen Time: Issues and Recommendations

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Abstract

Picture this: Students fully engaged in class activities on their laptops with instructions projected digitally at the front of the room. Meanwhile, some students are discreetly texting on their phones - three devices vying for attention and requiring focus. We often hear about the drawbacks of spending too much time in front of screens, commonly known as screen time. However, what constitutes screen time? Are all forms of screen time equal or detrimental, or are there benefits? What recommendations exist, and how can parents and teachers mitigate the adverse effects of excessive screen exposure? Exploring these questions will yield insights and recommendations.

Types of Screen Time

When considering screen time, it is essential to differentiate between the different forms—passive, social/communication, educational, interactive, and creative. Passive screen time is characterized by simply watching screens like televisions, laptops, phones, and tablets/notebooks. Passive screen time is the earliest and most common form of screen time that most people experience. Social/communication screen time involves using social media, sending texts, and managing emails. People spend many hours on social media, texting, and reading and responding to emails. Educational screen time involves academic pursuits like research and schoolwork on digital platforms. This type of screen time impacts school-age children and adults and has increased dramatically over the last several years. Interactive screen time is evident in video gaming and engaging with learning-oriented games. Many hours are spent in front of a screen by "gamers." Finally, creative screen time involves designing and crafting in digital spaces. This form of screen time is becoming more common and quite popular (Resnick, 2018; Sanders et al., 2019).

Detriments of Too Much Screen Time

According to the American Academy of Child & Adolescent Psychiatry (2020), children between the ages of eight and twelve spend four to six hours, and teens up to nine hours each day in front of a screen. Furthermore, adults may not know what content children are engaged with when in front of a screen or how many hours they spend. Children can be exposed to sexual content, violence, substance abuse, negative stereotypes, and misleading or false information. Many problems have been linked to the type of content and excessive screen time, including lack of physical activity, health issues, interrupted sleep, behavior problems, poor self-image, poor body image, and even violence (AACAP, 2020; Armitage, 2022; Christensen, 2021).

Typically, time spent on a screen is time not spent on physical activity, and lack of physical activity contributes to obesity, a significant health problem among children and adults. Children who spend hours in front of a screen are more likely to be influenced by junk food advertisements, eat fewer fruits and vegetables, prefer fast food, and overeat while watching a screen (Christensen, 2021; Robinson et al., 2017). Additionally, watching more television as children could result in being overweight and obese as adults. Moreover, excessive screen time is associated with hypertension, elevated cholesterol levels, insulin resistance, elevated inflammation, and metabolic syndrome (a cluster of conditions that increase the likelihood of heart disease, stroke, and Type 2 diabetes) (Robinson et al., 2017).

Sleep interruption is another significant detriment to too much screen time. Blue light emitted from devices may interrupt the circadian rhythm, resulting in later bedtimes and less sleep. Additionally, sleep deprivation has been associated with less physical activity and greater snacking outside of mealtimes. Lack of sleep can contribute to a lack of concentration, weight gain, obesity, and other health issues (Christensen, 2021; dos Santos et al., 2024; Robinson et al., 2017).

In addition to adverse health outcomes from excessive screen time, negative behaviors have been exhibited, including impulsive behaviors, aggressive thoughts, and actions, and even violence due to desensitization, overexposure to violence, and lack of intervention (Christensen, 2021; Ricci et al., 2023; Sanders et al., 2019). Excessive screen time can also result in emotional instability and a deficit in social skills, resulting in difficulty establishing relationships (Ricci et al., 2023). Additionally, the more time spent in front of a screen, the less time spent with family, in outdoor physical activity, and schoolwork (Armitage, 2022).

In addition to adverse health and behavior issues, cognitive functioning can suffer because of excessive screen time. A decrease in verbal intelligence related to language skills and a diminished growth in the part of the brain associated with language processing, attention and executive functioning, and emotions and reward are associated with too much screen time (Takeuchi et al., 2018). Moreover, early exposure to devices may affect children's ability to develop reading stamina, which develops over time into automaticity when children learn to focus on letters and the sounds they make. Because screen time is quick, easy, and overstimulating, it can be difficult to ignore (Heubeck, 2024).

Benefits of Screen Time

While excessive screen time may have numerous adverse effects, screen time can offer benefits if appropriately utilized. Developing healthy screen time habits are essential for families and will serve children well.

Dr. Jason Yip, Associate Professor at the University of Washington Information School, who studies technology's role in families to support collaboration and learning, asserts that the quality of screen time is more important than the quantity of screen time. Adjacent to this is that children will learn more from their time using technology if spent with a parent or adult. Playing digital games, exploring content, and talking about what they are experiencing fosters relationship-building and learning. The key is that the adult becomes a learner with the child (Milne, 2023). Others tout that educational screen time could benefit school achievement and persistence, assist in specific subjects like mathematics, and help with problem-solving skills (Ricci et al., 2023; Sanders et al., 2019). Additionally, there are benefits to young children, including promoting creativity, strengthening eye-hand coordination, and social development (Ricci et al., 2023).

Recommendations for Screen Time

The American Association of Child & Adolescent Psychiatry (2020) recommends the following regarding screen time. For children 18 months and younger, screen time should be limited to brief video chats. Between 18 and 24 months of age, watching educational programming with an adult is an appropriate use of screen time. For children, three to five years of age, non-educational screen time should be limited to one hour on weekdays and three hours on weekends. Screen time should be monitored for children six years and older and encouraged to adopt healthy screen time habits. Turning off screens during mealtimes, family time, and about an hour before bedtime is recommended.

Jill Christensen (2021), certified nurse practitioner and author of the Mayo Clinic Health System article "Children and Screen Time: How Much is Too Much?" provides several recommendations for children and screen time. For one, do not have a TV on in the background as it can draw children's attention to it; no TVs in the bedroom since children watch more if there is a TV there; do not eat in front of a screen since it promotes mindless munching and can increase screen time; plan what children watch by previewing shows and incorporate parental controls; watch with children, discussing what is seen, including advertisements; record and watch later in order to fast forward past commercials; and encourage active screen time, meaning incorporating movement while in front of a screen, such as yoga. The Mayo Clinic (n.d.) offers a free two-month program designed to decrease screen time called "Slim Your Screen Time." This program provides many ideas for engaging in activities that replace screen time. Participants are encouraged to try at least 30 during the two months.

Ricci and colleagues (2023), in their article "Impacts of Technology on Children's Health: A Systematic Review," recommend that parents be deeply connected to what their children are doing on screens by monitoring what they view and how much time they spend. They indicate a link between parental awareness and participation and reduced adverse effects, particularly from

a social standpoint. Additionally, they promote being cognizant and understanding of children's feelings regarding screen time.

Dr. Robinson and his team (2017), authors of "Screen Media Exposure and Obesity in Children and Adolescents," recommend no screen time for infants and young children, as children need face-to-face time with parents and family members. They remind that cyberbullying, body shaming, pornography, predation, and inappropriate advertising are possible encounters when children receive a cell phone. They recommend phone-free activities, phone-free spaces, and the use of parental control apps.

Common Sense Media (2022), in their digital article titled "Be A Role Model: Four Ways to Balance Screen Time Around Children," provides several recommendations for screen time for adults. First, set device-free times and zones. It is crucial to be a role model by not bringing the phone to the dinner table and not multitasking while on the phone. Second, set personal screen time goals. Be mindful of when and why the phone is being used and adhere to personal goals. Third, keep distractions to a minimum. Turn off notification alerts and turn on "Do not disturb." Fourth, watch and play movies, shows, and games with children. Ask them questions to promote their thinking, understand their interests, and build deep and lasting connections.

Ways to Manage Screen Time

Managing screen time takes work and effort. Adults need to monitor their children's screen time and their own. Common sense media (n.d.) promotes the importance of discussing screen time expectations with the family and using a Family Tech Planner on their Make Screen Time Safe and Positive website. They provide planners for families with children two to eight years old, nine to twelve years old, and thirteen years old and older in English and Spanish.

Apple (2024) has Screen Time as a feature on their phones, iPads, and iPods, which has many uses. For example, schedule downtime, add app time limits (all or select apps), determine which apps are allowed and prohibited, monitor screen distance, set communication limits (with whom and whether during screen time or downtime), select communication safety (detects inappropriate content before the child can view it), and set content and privacy restrictions (block content, purchases, and downloads). Adults can view reports on how much time has been spent and on what apps, what notifications came through, and even how many times the phone was picked up. Parents can also lock Screen Time settings so children cannot change them. Apple also provides child safety resources to better educate parents on keeping children safe online. Thorn for Parents (2024) is available on phones and online to assist parents in having conversations with children about what they are or may experience as screen users.

Google (n.d.) also provides safety features for Android 7 and higher and Chromebooks when a Google account is set up in Family Link platform. Time limits with time left notifications are provided, and children cannot unlock them once the device is locked. Some apps or contacts can always be made available if chosen. Additionally, Google provides digital guidebooks for adults to help them navigate Family Link and connect with valuable resources.

Bark (bark.us) is a paid service that helps parents monitor content accessible on devices. It can help parents track location, manage screen time, filter content, block websites, and send out alerts 24/7. Unlike the abovementioned resources, Bark can pause the internet on children's devices. An easy solution to keep children from being on their phones at night is to collect them before bed.

Conclusion

Screens are not going away, and neither are the inherent risks associated with them. It is imperative to be aware of the dangers of excessive screen time for children and adults and mitigate those risks by being informed and proactive. Mitchel Resnick (2018), part of the MIT Media Lab that created Scratch, the largest coding community for children, recommends engaging students in creative screen time rather than minimizing screen time, focusing on quality rather than quantity, and getting involved in your child's screen time. Why not make screen time a safe, healthy, enjoyable, and collaborative experience for everyone?

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