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Review Article

Screen Dependency Disorder: The Use and Abuse of Screens by Children and Young People Today

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Abstract

This text explores the impact of excessive screen use by children and adolescents, highlighting how technology influences the psychological, social, and neurological development of young people. It questions the boundaries between healthy use and abuse of electronic devices, emphasizing that constant hyperconnectivity leads to a superficiality in relationships and can trigger negative consequences, such as anxiety, isolation, and digital dependency. Cited studies indicate an increase in mental health issues related to excessive screen use, including sleep disorders, concentration difficulties, and even symptoms similar to autism, termed 'virtual autism' or 'digital dementia.' As alternatives to reduce screen dependency, it suggests encouraging recreational, sports, artistic, and manual activities, contact with nature, and setting clear limits on technology use.

Introduction

Every day, I receive in my office parents, young people, and children who bring with them their electronic devices, which incessantly beep, vibrate, play music, demand, require, and drain their attention – sometimes, I have to ask the adults to mute their devices so that the consultation can proceed – an exaggeration?

Today, we are almost constantly connected, plugged in, immersed in the virtual, "online" and "onlife," feeding our professional networks, social networks, gaming, vanity, and addiction... just a quick look... a quick scroll... the faster, the better... the more concise, the better... if it can be on two, three, four screens at once, even better... can I handle all of this? It always refreshes while I'm scrolling... it's already gone... old news, it's passed, gone... did I miss it? Did I lose the content, or did I lose myself in time, in space, in connection? Lost in the Other, or lost from oneself?

I bring up this topic here because it is a work that addresses child development – and technology is here to stay. This evolution is positive and has facilitated many processes. It has brought openness, possibilities, and improvements. But with its speed, allure, and power, the question of limits for the human body and self arises. Are we using it, or are we being used by it? Consciously or alienatedly? Are we expanding or superficializing... in which fields, degrees, and moments? There is a generation that came before, that saw the before and after, knows the possibilities and some limits... and the generation that was born immersed in the network, which are young, precocious, immature, even?

Are we Connected and/or disconnected?

As I reflected in an article in 2022, as adults, we know we are in new times, "globalized" and "hyperconnected" times. Times of immediacy and virtual reality. Times of "liquid modernity." This is the cultural scenario and moment in which young people are immersed and developing. New paradigms and ways of relating and communicating. If there was always a certain distance between generations, this has become even more evident and enhanced nowadays. Technology, media, apps have enormous power of seduction over children, young people, and adults. Adults create technology, and children are born immersed in it.

Therefore, the younger, the harder it is to perceive and differentiate the concepts of reality and fantasy. The real and the virtual. The physical sense of touch and the virtual sense of contact. From face-to-face conversation to chat in apps, typing. Meeting and relating to others physically and intimately is a rich experience, full of challenges, misunderstandings, affections, tastes, smells, right under the skin. The virtual meeting is an ideal mask and, in many aspects, "fake." Full of expectations and illusions. It becomes an illusory protection promoted and maintained by easily molded avatars, vain, fashionable, impulsive, reactive, and with a very low threshold for frustration. It comes easy, goes easy. Any difficulty, it's erased, cancelled... deleted. With no major consequences (apparently). With little consistency. And the limits? Well, limits and boundaries in the virtual world are ephemeral. If we don't have clear boundaries in our daily lives, in social interactions, in relational exchange, with our bodies and health – these will be even more ethereal, superficial, fleeting, and difficult to delineate in the virtual world. But with so much technology, possibilities, and novelties... are there dangers then? Follow the trend...

Some statistics that indicate excesses

According to IBGE data from 2021, 90% of Brazilian households had internet access. Nine out of ten children and teenagers are internet users. Among children aged 10 to 13, 82% used the internet during the surveyed period, with cell phones being the most-used device. The proportion of internet users aged 9 to 17 with a profile on Instagram rose from 45% in 2018 to 62% in 2021. A significant data point is that 46% of those aged 15 to 17 used the internet to seek emotional support, 28% for those aged 13 to 14, and 15% for those aged 11 to 12.

According to the Federal Council of Psychology's website (2024), between 2019 and 2022, there was a 64%

increase in intentional self-inflicted injuries among children and teenagers, such as suicide attempts – numbers that would be related to excessive screen use.

Alarming: if a child typically spends almost three hours a day in front of screens at age two, about five hours at age eight, and over seven hours as a teenager, this means that before turning 18, our children will have spent the equivalent of 30 school years in front of screens (Velasco, 2020).

Academic references studying this current phenomenon

Brazilian psychoanalyst Ana Suy (2019) reflects in her book that hyperconnectivity and early exposure to technology negatively impact personal relationships; it brings high pressure for performance; promotes sleep disorders; has psychological consequences such as anxiety and depression; increases inattentiveness and social isolation. The author analyzes how constant access to the internet and social networks creates a culture of continuous comparison, leading young people to feel inadequate and pressured to achieve unrealistic standards of success, body image, relationships, and happiness.

French neuroscientist Michel Dermuget presented well-founded and alarming data showing how digital devices are seriously affecting young people's neuronal development. The researcher lists the damages to which they are exposed, such as reduced time for constructive and developmental activities like reading, art, and music; sleep disturbances; attention overstimulation; learning deficits; impulsivity; and sedentarism. The latter, in addition to impairing physical development, influences brain maturation, especially during a phase of life when the potential for neuronal plasticity is at its peak. He believes that childhood today is exposed to a "digital orgy" (Velasco, 2020).

The American psychiatrist Dr. Anna Lembke (2022) explains that excessive screen use, including social networks, online games, and videos, activates the brain's reward circuits, releasing dopamine. This process is similar to what occurs with addictive substances like drugs and alcohol. Similarly, Kardaras (2017) argues that excessive use of digital devices can lead to technology addiction, comparable to drug addiction. Various studies indicate that electronic devices use these "reward strategies" and "dopamine release" to keep users plugged in, scrolling through feeds, searching for the next video, the next news... and young people do this, accelerating audios, videos, and accessing multiple devices simultaneously, "not to miss anything."

As Izabel Hazin points out on the Federal Council of Psychology of Brazil website (2024) regarding the guide with guidelines on conscious screen use: "It's not difficult to identify how the systematic exposure of

children and adolescents to social networks and electronic devices impacts this population. It is something that is reflected in family and social relationships, school performance, physical and mental health, and has also been observed in the increase in cases of anxiety and depression in this age group."

In this line of thought, Lembke (2022) emphasizes that prolonged screen use is associated with various mental health issues. She describes how screen dependence can alter people's daily behaviors and habits, leading to a decrease in productivity, quality sleep, and the ability to concentrate. Kardaras (2017) also notes that we are creating a generation of technology-addicted children facing risks in brain development, emotional problems, social isolation, and exacerbated sedentary lifestyles.

In the very recent French report from April 2024, titled "Children and Screens: In Search of Lost Time," concerns were raised about the commodification of children through screens, excessive exposure, exaggerated consumerism, and various health consequences. The report clearly indicates scientific consensus on the harmful effects of screens on the health of children and teenagers, such as sleep deficits; sedentary lifestyles; resulting obesity and chronic illnesses; vision problems; psychological vulnerabilities; isolation and impoverished social interactions; losses in language development; exposure to violence and pornography; superficiality and trivialization of topics, among others.

In various articles and studies on early exposure and excessive screen use, the terms "Virtual Autism" and "Electronic Autism" emerge. These refer to how virtuality and hyperconnectivity "steal" our presence, attention, interaction, and availability with the external and real world due to our overconnection to the virtual. The American psychologist Nicholas Kardaras (2017) uses the term "digital autism" to describe a set of behavioral symptoms similar to those of autism spectrum disorder. He argues that early and intense exposure to screens can lead to social and emotional developmental problems, which may manifest similarly to autism symptoms.

Brazilian psychologist Leo Fraiman (2024) uses another term, mentioning that when a child "gets angry or says their life will end if they are punished without their phone, when they wake up and go to bed with the phone in hand, if they can't do homework or read a page of a book without checking or using their phone," they may be developing what he calls "digital dementia." This term has been associated with excessive screen use, in which people generally start to show a series of symptoms that affect memory, thoughts, and social bonds, significantly and negatively interfering with daily activities.

In popular language, we hear people refer to others, when they are "glued to their screens," whether for games, reels, posts, media, series, gossip, messages, with phrases like: "Looks like a zombie (...) offline (...) dazed (...) disoriented (...) absent (...) out of touch (...) doesn't respond (...) in another reality." In other words, it is not only something studied, verified, and proven by researchers but also something that society has long observed as harmful. And, is there anything we can do to fix it? Here are some tips...

Touching, Experiencing, Feeling the Real World Around Us, and Being Present

"Everything in excess is harmful," says the popular saying. We are currently surrounded by technology and are constantly demanded by it and dependent on it. Many researchers recommend a "technology detox" – disconnecting from it for a few hours a day or even staying away from devices and media for a period. This approach has been shown to reduce levels of tension, stress, anxiety, and fatigue, giving way to new (or forgotten) sensations, activities, and possibilities. Moving away from screens and connecting more with the real world. Seeking hands-on activities and in-person courses, from gardening to painting, cooking, weaving, book clubs. Looking for sports activities without needing screens or music devices, connecting with the world around us. Dedicating oneself to household tasks, mindfully and consciously, without the TV on, without the radio, without the phone...

Yes, we are talking about possibilities in the adult world, as children constantly observe and imitate adults. To reduce screen time in daily life, we need to be the model and realize that a world outside of screens is – of course it is – possible.

Today, electronic devices are introduced very early, and this neurochemically affects children's development. It is essential to allow the child to follow the course of their neuropsychosocial development, not to rush but rather to delay the introduction of screens and electronic devices. Talk with the pediatrician, neurologist, psychologist, educator about the appropriate ages and phases for each game, animation, video, device. Everything in its time. Establish times, places, and moments when screens can be used and in what way. Talk about limits, respect, and consequences.

A vast, expansive world of possibility and potential has been created; now it's necessary to discover the boundaries or set them. Using our interpretive capacity and critical thinking to deepen shallow and superficial topics. Defining the boundaries between reality and virtuality, reality and fantasy, responsibility, and consequences.

Being present and knowing the children's and teens' world in screens, videos, reels, games, and being able to translate, describe, and explain certain aspects of these when necessary and possible. It is important to discuss virtuality and technology with children when they begin to enter this world, this network, this web. As I wrote in 2022, create a space for expression and exchange to identify and deal with dangers, risks, and circumstances that will appear and arise in the present and future. As we have seen so far, there are positive and negative points, possibilities and excesses, with perspectives, ways, and approaches to deal with it.

For children to grow up healthy, they need to spend less time sitting and more time playing, with free space, contact, and experiences with nature. With plants, trees, animals, toys, games, with other children from different places, backgrounds, and cultures. Yes, they will get frustrated, they will cry, they will face difficulties – and the adult (in this case, won't be out of touch checking their social network or contacts on their phone) will be there, present, to show that this is what living is. Living is being present for what the world has to offer.

This broadens the range of experiences and learning for children – it's not easier; it's more real. What reality do you want to shape your child, the real life, or the virtual?

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