THE IMPACT OF DIGITAL MEDIA ON OUR CHILDREN

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T hirteen-year-old Parthiv had stopped going to school. Simultaneously, he had got hooked to an online video game called Fortnite. It was difficult to tell which started first, difficult to establish a linear cause-and-effect relationship. Energetic, creative and sporty, Parthiv was diagnosed with attention difficulties and a learning disability two years prior to that. The academic difficulties had become evident in junior school, but it was not until he came to middle school—when academic demands take a quantum jump—that the concerns grew serious. Parent–teacher meetings started becoming difficult for him and his family, and he became increasingly unsure of his own abilities. Rather than face up to the challenges, which his parents and teachers expected him to do, he started withdrawing and giving up. From a popular, pesky and outgoing tween, he had become an under confident and moody teenager. Shunning outdoor sports and real-time friends, he took to the screen. And with it came school refusal. Any attempt by his parents to remove his screens was met with extreme emotional outbursts and violence, leaving them helpless and bewildered. It was then that they decided to consult a mental health professional.

Screen addiction is a reality. In our clinics we often see children and teenagers who are seriously addicted to video games, social media and other forms of screen. And the term addiction is not used loosely here; it is meant as a serious affliction—when young people reach a crisis where they have stopped going to school, socialising and leading a regular life. It is important to point out here that there is, most often, a deeper emotional or neuro-developmental problem that pushes a young person to prefer the virtual world to

the real one. It could be a learning difficulty, depression, anxiety, a disturbed family life, or some other significant problem that has made the young person switch to the virtual world. As one child shared with us, 'I prefer the virtual world to the real one. I feel too lonely and scared in the real world.'

Susan Greenfield (2015), neuroscientist at Oxford University, uses the analogy of climate change to draw our attention to how the digital world is changing the wiring of our brains. Robust research from South Korea and the United States, where screen addiction is considered a major problem, also corroborates the same. There is evidence from multiple research studies that in young people who are addicted to screen, there is an atrophy/thinning of grey matter in the brain cortex, including the regions of frontal lobes, the seat of intelligence and higher cognitive functions. As a consequence, there are executive skill difficulties, including short attention span, poor language development, difficulties with time management and organisational skills, poor impulse control and frustration tolerance. It also disrupts the connections between the frontal lobes and limbic system, the seat of all emotions and motivation, resulting in compromised emotional control and social skill difficulties. Brain functional scans also indicate reduced information processing and diminished impulse inhibition. In the real world, this translates into a child who could be distracted easily, has difficulty learning and remembering, is unable to tolerate frustration and, consequently, has frequent emotional/anger outbursts, avoids social gatherings and is unable to make or sustain friendships.

The other alarming finding in scientific research is that the pathways and regions of the brain that get affected in screen addiction are the same as those found in drug addiction. Functional brain scans indicate that the same brain substrates get activated when screen and/or substance addicts get cravings. In a clinical setting, treatment approaches are, therefore, leaning towards similar understanding and strategies.

Take the case of 16-year-old Dhruv who came to see me in a crisis. Considered exceptionally bright and gifted, he had topped his school in the Class X board exams. To provide him with more opportunity in analytical and creative learning, his parents decided to move him to an international school that follows the International Baccalaureate (IB) curriculum. Socially awkward in temperament,

Dhruv found it hard to make friends in the new school. The very different methods of learning and evaluation were also challenging, and he was no longer automatically the best student in class, a reputation that he cherished in his previous school. He started missing school and finding solace in Internet gaming and social sites where he could connect with other young people, often from different parts of the world. He started keeping awake till the early hours of the morning, glued to different screens, and soon stopped going to school altogether. His parents' attempts to help him stop or wean him off screens were met with extreme mood swings, violent outbursts and threats of self-harm. A suicide attempt led to an urgent psychiatric consult. By the time I met Dhruv, he had slipped into clinical depression and was clearly showing signs of serious screen addiction. As the risks were too high for him to stay at home, he had to be admitted to a psychiatric unit for a month. It was followed by individual and family therapy, along with medication for nearly two years, till he completed school and went on to college.

Recent studies in North America have found that the average 8 to 10-year-old spends nearly eight hours a day with a variety of different media, and older children and teenagers spend more than 11 hours per day. They conclude that young people now spend more time with media than they do in school—it is the leading activity for children and teenagers other than sleeping. These numbers were less than half a decade ago. Such an alarming and exponential rise of screen use and the increasing cases of screen addiction have prompted the American Academy of Paediatrics (AAP) to lay down guidelines for paediatricians and other health-care providers, as well as recommendations for parents and schools. Besides the impact on academic learning, mental health and development, they have, in no uncertain terms, expressed great concern regarding the media's influence on the increase in violence in young people, on substance misuse and addiction, obesity, sexual exploitation and abuse. The Academy strongly recommends that screen use be closely monitored and controlled in children from infancy. It also comments on the importance of the content children watch or experience through the media, and that educational and pro-social programmes or sites could definitely help with positive growth and development.

In clinical practice, too, we have felt the impact of this increase in screen-related disorders. Every second child coming to

our services, whatever be the primary diagnosis, will be struggling with some aspect of screen use/misuse and control. Stories of vulnerable teenagers posting revealing pictures on social media, being followed, and, in some tragic instances, abused by a sexual predator, are indeed true and happen with disturbing frequency.

Millennials and Generation Z, Internet businesses, professional gamers, and even progressive educators remind us that the IT revolution is not all doom and gloom. Generation Z (children born after 1995), despite their short attention spans and need for immediate gratification, are supposed to be better at multi-tasking, are more independent, more global, out-of-the-box thinkers, and show behavioural traits that favour entrepreneurship. The UNESCO Mahatma Gandhi Institute of Education for Peace and Sustainable Development (MGIEP), New Delhi, is researching and exploring possibilities of digital pedagogy that can reach out to the millions who do not have access to education, or the differently abled who do not learn in conventional schools but can do so through digital, multi-sensory, tailor-made educational plans. And who can doubt the joy most of us get from the plethora of TV shows, and films and documentaries that Netflix and other digital servers bring us. Surely our world has changed dramatically in the last 20 years and there is no going back from this ever-growing, complex and dynamic phenomenon that the digital revolution has created. The need, therefore, is one of moderation and control through different phases in a child's life; it is about deciding together and regulating what (content) and how much (quantity) a child is ready for at different stages of growing up. The moot question is who—which person or people, professional, organisation or institution—should decide the regulation.

As adults, we don't make great role models and often find ourselves straddling the real and virtual worlds at the same time. YouTubing, Tweeting, Facebooking, streaming, downloading, Instagramming, blogging, vlogging and messaging are happening at the same time as we work, interact, drive and parent. The need to remain connected to these different virtual spaces is compelling. We, as well as our children, live in a world where our sense of worth comes from the number of 'likes', 'friends' and 'followers' we have. At work, we cannot resist sneaking a quick peek to see if the latest tweet has got any re-tweets. Perhaps, as a society, we haven't

yet learnt how to handle the onslaught of this monstrous beast of a phenomenon.

The responsibility, clearly, needs to be collective. Parents need to be more aware and hands-on, schools need to educate students and parents about it, TV channels and digital servers need to regulate the timings and content of their programmes, professional bodies need to lay down guidelines for their practitioners, institutions of research need to study it regularly in our own sociocultural context and keep us informed about its impact, and the state needs to formulate clear policies and laws based on current understanding and implement them effectively. A tall order indeed, but I shudder to think of the outcome if we are not able to take bold and proactive steps at this juncture. To begin with, we could try and help our own child or student who might be teetering on the edge. Here are a few pointers that could help parents, teachers and carers (taken from Dr. Shelja Sen's articles and book on parenting and education).

WARNING SIGNS OF DIGITAL DEPENDENCE

- The child has become withdrawn, avoids most social interactions in order to be on the laptop, phone or other gadget;
- gets extremely upset when the laptop/computer/phone is taken away or the wi-fi is switched off;
- extreme irritability and defensiveness when questioned about overuse. Tendency to hide it, or lie;
- staying on the Internet acquires a saliency and preoccupation even when away from the gadgets;
- disruption of day-to-day life and rhythms such as sleep, meals and even school attendance;
- increased conflict at home with parents as a result of excessive use.

STEPS TOWARDS AWARENESS AND CONTROL
CONNECT

These children might not be ready to connect at first, but one needs to be around them more often. Chatting about their favourite music, film and TV programmes, or even listening to them without judgement about their social media interactions, builds a relationship that becomes an essential first step to enter their world.

THE 'YOU, ME, WE' APPROACH

It is only when you have started listening and connecting deeply that you could ask their views on their social media use. Listen without getting into an argument, and after they are done, put your point across calmly without any accusations. If the problem is mild then the child might listen to you and follow the jointly decided boundaries, especially if other family members are also able to maintain them consistently.

CREATE OTHER ATTRACTIVE OPTIONS
It is difficult to match the thrill and visuo-motor ecstasy of the screen with alternative media. However, explore other options such as sport, learning a musical instrument, martial arts, theatre, dance, etc., depending on their interests and passions. There have to be other attractive propositions and opportunities to help them move away from screens.

WALK THE TALK
It is very difficult for us to question children or impose boundaries if we ourselves are engaged in excessive 'screen sucking' (as termed by psychiatrist Edward Hallowell). Learning how to disconnect from pixels is a life skill that we, as adults, need to focus on and master too.

PROFESSIONAL HELP
Once the problem becomes severe, then threats, punishments, shouting matches, locking up gadgets and switching off the Internet may not work. You might need to consult a child psychologist/psychiatrist for a comprehensive assessment to understand your child's complex needs and the evolution of the problem. Often, a multidisciplinary treatment approach, including the child, parents, teachers and different professionals, would have to follow. In our experience, timely and appropriate intervention almost always produces encouraging results.

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REFERENCE

Greenfield, Susan. 2015. *Mind Change: How Digital Technologies Are Leaving Their Mark On Our Brains.* New York: Random House.

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