“Digital Dementia” - The Dark Side of using Technology

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1. Introduction

“Digital Dementia” This is a real medical term right now. “Digital Dementia” is a term coined by neuroscientist Manfred Spitzer (2012) to describe an overuse of digital technology resulting in the breakdown of cognitive abilities.

The term ‘digital dementia’ originated in South Korea a few years ago, a country that has one of the largest digital-using populations in the world. South Korean doctors noticed young patients experiencing cognitive and memory problems after heavy use of digital devices. They also found the symptoms to be more common with people who had sustained previous brain injuries.

Digital dementia is characterized as the deterioration of brain function as a result of the overuse of digital technology, such as computers, smart phones and Internet use in general. According to researchers this excess use of technology leads to unbalanced brain development, as heavy users are more likely to overdevelop their left brains, leaving their right brains underdeveloped. In simple words a person who spends more than seven hours a day on technological devices shows a significant lack of development in the right side of their brain; that is the side of the brain responsible for concentration and memory that can lead to emotional problems and yes the early onset of dementia is horrific to witness and horrible to imagine in your own life. This is not something to take lightly.

Now a day, we are so reliant on our smart phones, that our smart phones are making us stupid. Is that making sense? I mean it’s convenient. We don’t want to remember 500 phone numbers. Right? Nobody wants to do that. But we’ve lost the ability to memories one. With electronic technology in almost every household today, this new kind of electrical dementia is on the rise and hitting our youth at an alarming rate. The statistics are already alarming yet nobody is sounding any alarm bell.

Researches have shown that engagement with smart phone (social media) releases a chemical called “Dopamine”. That is why when we get a text, likes or comments on our social media, feels good. Dopamine is the exact same chemical that makes us feels good when we smoke, drink alcohol and when we gamble. In other words it is highly highly addictive. The irony is that we have age restriction on smoking, consuming alcohol and gambling yet we have no age restriction on using social media or smart phones. Now a day, parents are giving their kids free access to smart phones and social media. Mothers are using the smart phone instead of a lullaby. This should not be done. The young kids are not ready for it. Their minds cannot cope up with the rate of Dopamine. I mean the balance is fine. There’s nothing wrong with social media or smart phone. It’s the imbalance. Too much using of these could be very dangerous.

In Stanford University there is a class called the “Persuasive Technology Design Class” that teaches students how to apply persuasive psychological principles into technology to pursue people to use product in a certain way. So, it’s not about giving you all the freedom, it’s about sucking you in to take your time.

Tips

Maintain a life without overusing technology nowadays may be impossible. However, there are precautionary measures that may help counter contributing factors of digital dementia. Consider the five below.

1) Ideally, we should use digital devices for no more than 3 hours per day. Admittedly, this is a challenge for many people nowadays who are required to spend the whole day at work on a computer. Instead of aiming for this for every day, start by selecting one day to achieve this goal, like Saturday or Sunday.

2) Take regular breaks to get up and move around. This will help your brain rest and create gaps between your prolonged usages.

3) It is important to maintain a normal posture when on your digital screens, especially when on them for prolonged periods of time. Looking down at the device changes the resting state of the brain, which is associated with the decreased levels of alertness.

4) Do more physical exercise to improve your brain’s sharpness. In return, your memory and cognitive functions, including that of your children, will see an improvement.

5) Shut down your Wi-Fi modem and router before sleeping. There is no reason to have the radiation continuously reaching you when you’re not even using the device!
6) Reading a physical book, rather than words on a screen is a great way to exercise the brain. Reading has been shown to improve both memory retention and attention span.

7) Attempting to learn a new language is an incredibly challenging cognitive exercise. It requires immense concentration and cognitive function, both of which are beneficial to the brain. Go ahead, use an app to teach yourself to speak French, but also get out there and apply that knowledge through true conversation.

8) Playing an instrument requires the use of both sides of the brain, which helps create the balance that is often damaged from the overuse of technology.

Digital dementia is very real. Many of today’s students who are overly dependent on the internet are incapable of understanding complex concepts. Their academic writing skills not only display a poor command of language, but also a lack of critical reflection, being able to establish coherent causal and conditional relationships and to specify details. The internet conditions us to take in information in small chunks; we remember where to find things but we do not remember what they were. In a nutshell, we externalize our knowledge construction. This impairs working memory as well as executive functions. Digital dementia is also reinforced by non-digital factors such as traditional school systems that rely on rote learning, so there are cultural factors to be taken into consideration too.

3. Conclusion

Smart devices could be extremely convenient but they could be crippling also. So, a balance should be maintained while using these. Technology is a part of our society, there is no getting around it. How we engage with technology can change our life.

References


