Technology Addiction among Children and Youth: A Study of Related Behavioural Impact

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ABSTRACT

Children and youth in the 21st century are avid users of technology - more so than generations past. This rise in use has led to much attention on the consequences of technology use, and how this impacts children's and youth's brains and their socio-emotional, cognitive and physical development. The last decade has witnessed a large increase in research on the newly emerging mental health problem of technology addiction. Rather than looking at technology addiction per se, this study focused on particular activities on the Internet, smart phones that might be potentially addictive and linked them to personality traits that might predispose individuals to technology addiction. Fortunately, the nature of digital media can also help the hosting of methods and mechanics to combat digital and technological addiction, e.g. in the monitoring of online usage and enabling individuals to stay in control of it. Frequent usage of online shopping and social online activities, high neuroticism and low agreeableness significantly increased the chances of being addicted to the Internet. The current study aimed to examine children's and youth's experiences of using technology within the home.

Keywords: Technology addiction; Internet; Smartphones; Social media; Digital media.

1.0 Introduction

What is technology addiction (internet addiction)?

The frequent and obsessive tech-related behaviour increasingly practiced by an individual in spite of the negative consequences they experience. It encircles addiction to the internet, social media or video/computer games.

It is an impulse control disorder that involves the obsessive use of mobile devices, the internet or video games. The disorder may also be referred to as digital addiction or internet addiction.

Continuous technology use is destroying children's capability to interact with other people. Almost three quarters of 16-to-24-year-olds "prefer texting to talking." Adults are addicted. The Telegraph found that on average, people check their phones around 200 times a day. This addiction even affects people's sleeping habits.

Not all technology stories are unattractive. It is unavoidably clear that technology addiction has a deeply harmful effect on young people. The more time teenagers spend online, the more likely they are to suffer from mental health issues and emotional problems. Instead of making their lives better, technology addiction is destroying their childhood.

Many experts blame social media platforms for encouraging addiction. Dr. Richard Graham, a specialist in technology addiction, told the Telegraph that for tech companies, "It's a race to the bottom: how can we keep you online magnetically for as long as possible?"

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These companies use behavioural psychology and addiction studies to make their apps and devices irresistible. Once they have users addicted, the goal is to keep them using the devices.

Technology is a strong poisonous drug. Young people can ruin their lives due to such kind of addiction. The young generation, especially the tender age teenagers can't behave maturely as they don't have such vision where they can decide what is right or what is wrong for their lives. That is why it is crucial that we as parents authoritatively regulate their media usage, depriving them of wrong influences.(thetrumpet)

But there is a difference between reliance on technology and addiction to technology. And if you think children and youth may be in the latter category, the sooner action taken it is the better.

So what are the signs of a technology addiction, in children and youth in particular?

There is very thin line which can differentiate between addiction and reliance. With the help of following few points we can be derived.

- 1. Lack of interest in other activities.
 - Have they stopped enjoying or seeking out the other things they used to enjoy?
 - Would they always choose screen time over any other leisure activity?
- 2. Problematic behaviour when unable to access digital devices.
 - Are there excessive tantrums or bad behaviour when they're not able to access their phones or
 - Do they become aggressive or act out of character?
- 3. Withdrawal symptoms.
 - Do they seem anxious, distressed or upset when they can't access their devices?
- 4. Constant distraction by technology.
 - Are you unable to communicate with them or get their attention when they're using digital devices?
 - Are they always anxiously waiting until they can next get online?
- 5. Constant talking about 'screen time'.
 - On occasions when they're not using screens, are they frequently referring to them, in one way or another? (Such as discussing things they have seen or done online.)

If child or person is exhibiting any or most of these symptoms, an Internet intervention may be in order!

By setting up healthy habits for screen time while he/she is young, kids will be much more likely to transfer these habits into their adulthood, and navigate the digital world in a more mindful and productive way.

The following few points can help parents to reduce addiction amongst their children:

- Don't get them to go sudden withdrawal! This will make the transition seem much more difficult and more like a punishment, rather than working towards their best interests. Work on slowly reducing their screen time, rather than eliminating it.
- Make a hierarchy of priorities. Set guidelines for what must be done before they can have screen time, such as homework, cleaning, preparing for school, and family time.
- If there were no limitations and control before set some. Such as a daily screen-time limit and 'no screen-time zones' (like during family time or before bed).
- Start by changing the content, rather than usage. Replace pure entertainment or mindless games with apps or programs with some educational grounding.
- Replace screen time with other enjoyable activities. Drawing, reading, playing games, outdoor activities, or even some extra dessert.
- Make a ranking of screen time. Allow communal, interactive screen time before individual screen time, and educational content before simple games.

Overdependence on technology can have serious effects especially for teenagers who are still at an impressionable age. Sure addiction to technology may not sound as bad as other addictions, but it can have serious implications nevertheless.

2.0 The Problems with Technology Addiction

Although it looks harmless on the surface, technology addiction can have adverse effects on a children's and youth's life. Some of the problems include:

Brain damage: Research now shows that technology addiction may actually damage the brain by producing neural pathways changes similar to those caused by drugs and alcohol. This results in damage to the parts of the brain dealing with attention, emotional processing, and decision-making.

Health problems: Due to adopting an increasingly sedentary lifestyle thanks to being glued to their screens.

Higher risk for depression, anxiety, and even suicide: Children and youth who spend a lot of time on social media tend to have lower self-esteem and higher levels of depression than those who don't. This might be because they're exposed to unrealistic standards and expectations for beauty, life, etc. that they just can't match up to.

Poor problem solving: Increasingly using the internet as a way to cope with the disappointments and challenges of life creates inability to manage stress. Unfortunately, such escapism only encourages teens not to find solutions to whatever problems they face in the real world.

Neglect: Neglecting aspects of their lives like their academics, relationships with friends and family and even their health.

Lowered emotional IQ: Deteriorating interpersonal skills are also a result of too much tech.

Safety concerns: Risks of cyber bullying, online predators, and excessive exposure to pornography.

Sleep problems: Sleep disorders as teens opt to stay up all night playing games or chatting online.

Source: https://internet.addictionblog.org/technology-a-dangerous-addiction-for-teens/

3.0 Treatment of Technology Addiction

Technology addiction falls into the category of compulsive behaviour that it is difficult or impossible to simply abstain from, like food addictions. Thus, treatment for technology addiction involves educating teens and young adults about what is happening in their brains and bodies, recognizing the consequences of their compulsion, and helping them to set limits and interrupt the compulsive cycle, and find alternatives.

So taking a holistic and comprehensive treatment approach is important in order to help achieve sustainable recovery.

Some of the treatment modalities that include:

- Cognitive Behavioral Therapy (CBT)
- Dialectical Behavior Therapy (DBT)
- Acceptance and Commitment Therapy (ACT)
- Group process

Source: https://www.sandstonecare.com/resources/substance-abuse/technology-addiction

4.0 Can Balanced Technology Use be a Positive Thing?

Technology is a tool that, when used appropriately, can have many benefits. Technology can be a great resource for communication, productivity, social connectivity, education, cognitive enhancement, creativity and expression, digital literacy... etc. These are all very useful when used in a balanced way. Problems can arise, however, when teens misuse or abuse these tools to replace realworld activities and face-to-face interactions, with virtual experiences.

Source: https://www.councilonrecovery.org/technology-misuse-abuse-addiction-among-eenagers/

5.0 Objectives of study

- To find how the coming generations are getting addicted to new technology
- To find purpose of internet use
- To find time spending pattern of mobile phone
- To find usage of smart phones, internet and mobile applications
- To find behavioural change in an individual by using smart phones and internet

6.0 Research Methodology

To achieve the objectives of the present study, the primary and secondary sources of information have been utilized.

Research Design: Descriptive Research Design has been used.

Source of Data: Primary Data is collected through structured questionnaire. Secondary Data is collected through various web sites.

Data collection method: Data is collected through structured Google form of questionnaire.

Sampling technique: Non- probability sampling. The reason to take convenience sampling is that there is no kind of particular cluster, region or pattern in sample and the variables are not fixed.

Sample Size: Sample size of 198 has been undertaken in this research.

7.0 Data Analysis and Findings

We have surveyed around 198 people through Google form of questionnaire. Based on answers submitted by these respondents following findings have inferred:

- Out of total 198 respondents, 72 were female and rest were male. Out of these, around 84 respondents fall between the age group of 21-25 while around 35 respondents are in their late teens i.e. aged between 16-20 years
- The total respondents can be further divided as 39 employed and rest as students. All the respondents have access to smart phones.
- The source of internet used by majority respondents is mobile internet. Rest all are divided between data card users, broadband users and Wi-Fi facility.
- Out of total users, 113 students use internet for either educational or for social networking or as in most cases for both. Very few use for gaming and recreational purposes.
- Out of total respondents, 25 were using internet facility for more than 5 hours while almost similar number of people was using it for 1-2 hours. There were 56 people who were using this facility for 2-5 hours and rest respondents were using it for all time.
- Total 39 respondents are using Facebook app through mobile while 72 never used this app through mobile. Majority respondents used Instagram for 1-2 hours on mobile while very few using this app through mobile
- Most of the respondents prefer to use twitter through mobile always while around 59 never used this app through mobile

- Majority users used mobile app of Whats app for 1-2 hours out of total time spent on mobile while most of them prefer not to take help of mobile phones for using emails.
- Messenger was used by very few people. Respondents were not comfortable using LinkedIn through mobile
- Most of the respondents were using their mobile phones to play video games to kill the time. Only 31 respondents never used mobile phones to play video games.
- Around 144 out of total respondents used Youtube for more than 5 hours for entertainment.
- Approximately 173 respondents were sometimes feeling obsessed with their mobile phones. While 177 never felt stressed on not being able to use their phones.
- As many as 169 respondents couldn't control addiction for mobile phones eve after trying hard to control urge.
- Approximately 160 respondents never felt that they have used phones longer than intended.

8.0 Scope of the Further Study

- We can do further research with large number of respondents
- We can do research with more geographical area
- We can apply different tests to check behavioural change in person by using these kind of technologies
- We can add more factors affecting to person's behaviour

9.0 Conclusion

Change is inevitable part of life. It is a sign of progressive and developing society. So adapting oneself to this changing scenario is mandatory. But when, we, especially the younger generation is blindly following this change it is hazardous to the society. Excessive use of technology paralyses society. Balanced use of technical knowledge for barriers free communication, enhanced productivity, smooth social connectivity, education, creativity, digital literacy is always welcomed.

Bibliography

- https://www.melbournechildpsychology.com.au/blog/does-your-child-have-a-technology-1.
- 2. https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=8002538
- https://scholarspace.manoa.hawaii.edu/bitstream/10125/64488/0602.pdf 3.
- 4. https://www.oecd-ilibrary.org/content/paper/8296464e-en
- 5. https://www.oecd-ilibrary.org/docserver/8296464een.pdf?expires=1580101431&id=id&accname=guest&checksum=2C454AFB9EC613C67349A8 D10CF5DE58
- https://link.springer.com/article/10.1007/s10639-019-09952-w 6.
- https://link.springer.com/chapter/10.1007%2F978-3-030-16187-3_14 7.
- https://www.sciencedirect.com/science/article/pii/S0747563212003664?via%3Dihub 8.
- https://s3.amazonaws.com/academia.edu.documents/60716768/article 4c2a7862d04f6e9ad7fcdc 9. 9a91f4f1c120190926-59746-t0g331.pdf?response-contentdisposition=inline%3B%20filename%3DImpact_of_Internet_Addiction_on_the_Soci.pdf&X-

Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-

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1%2Fs3%2Faws4_request&X-Amz-Date=20200127T094433Z&X-Amz-Expires=3600&X-Amz-SignedHeaders=host&X-Amz-

Signature=3722b3a4302b9dc3091b567caf206429fcf3a424405b9bbaa913e7eb3b71d1f6

- 10. https://www.sciencedirect.com/science/article/pii/S0747563218306290
- 11. https://link.springer.com/article/10.1007/s10826-019-01457-x
- 12. https://searchcio.techtarget.com/definition/Internet-addiction
- 13. https://www.thetrumpet.com/17366-technology-the-silent-teenage-addiction
- 14. https://internet.addictionblog.org/technology-a-dangerous-addiction-for-teens/
- 15. https://www.sandstonecare.com/resources/substance-abuse/technology-addiction
- 16. https://www.councilonrecovery.org/technology-misuse-abuse-addiction-among-teenagers/
- 17. https://www.surveymonkey.com/r/BP2LN6P
- 18. http://www.indjsp.org/article.asp?issn=0971-9962;year=2017;volume=33;issue=4;spage=305;epage=311;aulast=Gedam

Annexure

Technology addiction among children and youth- A study of related behavioural impact Dear Respondents,

We, Prof. Chintan Prajapati & Prof. Sonalee Telang, are doing a research work on "Technology addiction among children and youth- A study of related behavioural impact". We will be more obliged if you could respond to the below mentioned questionnaire and your given response will be kept confidential. Your response can put more light on our research work and we can come out with realistic findings.

(Note: You can fill up this form on behalf of your child.)

Questionnaire:

- 1. What is your gender?
 - Male
 - Female
- 2. What is your age?
 - 1-5
 - 6-10
 - 11-15
 - 16-20
 - 21-25
- 3. What is your current profile?
 - Student
 - **Employed**
 - Child
- 4. Answer as applicable.

	YES	NO
Do you have access to smart phone?		
Do you have internet accessibility on your phone?		
Do you think you can survive without your phone?		

- 5. What is your source of internet use?
 - Data card
 - Mobile internet
 - Wi-Fi
 - Broadband

- 6. Purpose for internet use:
 - Educational
 - Social networking
 - Recreational
 - Games
- 7. On a daily basis, about how much time you spend on your mobile phone applications using internet?
 - 1-2 hours
 - 2-5 hours
 - >5 hours
 - Every time
- 8. How much time you approximately spend on these mobile applications daily?

	Never	1-2 Hours	2-5 Hours	>5 Hours	Every time
Facebook					
Instagram					
Whats app					
Twitter					
Hike					
E-mail Apps					
Messenger					
Linkedin					
Video Games					
Youtube					

9. Answer as applicable:

		Never	Sometimes	Often
1.	You are obsessed with your phone.			
2.	You feel stressed on not being able to use your phone			
3.	You have ever tried hard and failed to control your addiction			
	to your phone			
4.	You have used your phone longer than intended			
5.	Have you ever regretted using your mobile phone for long?			
6.	You feel comfortable in the virtual world than the real world			
7.	You get impatient when you don't find your mobile showing a			
	notification			
8.	Running out of battery in your mobile phone scares you			
9.	How often do you find yourself eagerly searching for a Wi-Fi			
	signal around you?			
10.	You neglect important activities at work/study place because			
	of overuse of mobile applications?			
11.	Have you missed a meal because of over-engagement with			
	mobile applications?			
12.	Have you ever experienced sleep deprivation because of these			
	applications?			
13.	Do you anticipate about the next online session or rethink			
	about previous online activity often?			

14.	4. You use mobile applications to pass time	
15.	5. Do you send frequent online requests to people to engage in a	
	game or friendship with you?	
16.	6. Do you feel nervous when you don't get likes/ comments on	
	the post you made recently?	
17.	7. Do you feel stressed when your friend posts the pictures of an	
	event you attended before you on internet?	
18.	8. Do you get restless when you are not able to access a	
	notification on your phone?	
19.	9. You ignore the people you are with in order to use your	
	mobile phone.	