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A Study on Youth Awareness of the Environmental Impact of Internet Use and the Role of Digital Detox as a Green Practice

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Abstract

Now a days Youths are aware about environmental impact of Internet use but there is no option at times because of the work. Digital detox has become a worldwide practice as now a days it gets very difficult for everyone to survive without using digital media and which in turn affects the physical and mental health of the people. So people need to take actions for their welfare. Daily work cannot be avoided hence digital detox is a useful escape. Digital Detox is actually an escape which is on purpose keeping oneself away from electronic devices. Avoiding use of electronic devices will definitely led to reduction in electronic pollution and will result in green practice through digital detox. Excess use of Internet has very bad impact on the environment. To save the environment reduction in the use of Internet/electronic devices is necessary. Therefore, this study was undertaken to identify the awareness of youths towards environmental impact of internet use. The study is important to identify role of Digital Detox as a green practice. The simple random sampling method was used for collection of data. A total of 125 online survey responses were received.

Keywords: Digital Detox, Electronic devices.

Introduction

Youths are more aware about the environmental impact of excess use of internet. Digital Detox is one kind of technique used by many to mandatory keep oneself away from the excess use of internet. Digital/Internet technologies rely on metal resources and mineral resources; their consumption is linked to significant an environmental impact which includes fresh water and marine eutrophication. Extending the life of Internet based devices reduces the use of fresh raw materials. Digital Detox can be defined as a period where in intentional disconnecting with the digital based devices like internet, smartphones to reduce stress, improve mental

wellbeing. Youths are very much aware of the situations which are the end result and are aware that should act in some way to rectify the consequences which may arise in the future. Therefore, this study was conducted to assess the awareness of Youths towards the environmental impact of Internet use and Role of Digital Detox as a Green Practice.

Significance of the Study

The study is important to identify the impact of internet use on environment. Internet usage is increasing on daily basis by everyone which is causing an adverse effect on the environment which should be taken into consideration. Regardless of the necessity of internet use avoiding excess usage should be initiated. The study is also important to identify the role of digital detox as a green practice. Insisting reduction on purpose for the digital usage is the necessity of time especially with the Youths.

Review of Literature

Demir and Mumcu (2023**)** found that nursing students have moderate level of digital addiction.

Dat, Phuong, Vinh and Tran (2024) found that there was a need to apply policies that will harness digital platforms to promote green consumption.

Yaramis and Unal (2024) found that majority of the students experienced withdrawal symptoms due to digital addiction.

Alhazmi (2025) found that internet has become and integral part of human life of Saudi and people have more than 6-7 hours of internet use daily.

Biter (2025) found that minimalist and nature oriented interior design supports digital detox for individuals which gives physiological and psychological relief.

Objectives of the Study

1 To study the awareness of the environmental impact of internet use (e.g., data centers, streaming, cloud storage).
2 To explore current digital habits (screen time, streaming quality, auto-play, cloud backup) among youth.
3 To assess digital detox practices among youth.
4 Identify motivators and barriers that affect youth willingness to try digital detox as a green practice.

Hypothesis of the Study

5 H_0: There is no significant relationship between youth awareness of the environmental impact of internet use and the motivators that encourage them to adopt digital detox as a green practice.

6 H_1: There is a significant relationship between youth awareness of the environmental impact of internet use and the motivators that encourage them to adopt digital detox as a green practice.

Research Methodology

Data Collection

In order to study Youth Awareness of the Environmental Impact of Internet Use and Role of Digital Detox as a Green Practice, primary as well as secondary data was collected. The secondary data was collected through articles and research reports. The primary data was collected through questionnaire with the help of Google forms which was an e-survey method of data collection.

Sample Design

The Simple Random Sampling technique was used for the study. The framed questionnaire was sent through Google Forms to the student respondents which were located in Mumbai and suburbs of Mumbai. The survey was kept open for ten days to receive the desired number of responses. This survey enabled a total amount of 131 filled responses.

Statistical Techniques used for Data Analysis

The primary data was collected through an online survey method. Statistical techniques such as frequency and percentage were used to analyze the data.

Results and Discussion

1) Profile of Respondents

The profile of the respondents contains the data about the age and qualification of the respondents.

Table 1 Profile of Respondents

Age	No of Respondents	%	Qualification	No of Respondents	%
19–21	74	56.5	Undergraduate	103	78.6
16–18	51	38.9	Postgraduate	12	9.2
22–24	6	4.6	School / Junior College	13	9.9
Total	**131**	**100.0**	Working professional	2	1.5
Both postgraduate student and working professional				1	0.8
Total				**131**	**100.0**

The findings in the table 1 indicates a total sample of 131 youth respondents participated in the restudy. With reference to age distribution, it was found that the majority of respondents 56.5% were from the age group 19-21. 38.9% of respondents were from age group 16-18 and 4.6% of respondents from the age group 22-24. Regarding academic background it was found that 78.6% of respondents were undergraduate students. 9.2% were postgraduate students. 9.9% of respondents were. School/junior college students. 1.5% of respondents were working professionals and 0.8% of respondents were both postgraduate and working professionals. The data indicated that the survey mainly represents the college going students usually this group assume to be the active internet users.

2) The Awareness of the Environmental Impact of Internet Use Among Youth

The awareness among the youth respondents of the environmental impact of using internet the were examined based on the four variables namely; watching videos in HD/4K uses more energy compared to lower quality, Data centers (which store online data) consume a lot of electricity to run and cool servers, Using the internet (like streaming, gaming, cloud storage) consumes electricity and adds to carbon emissions In the last 6 months, I have come across any article, post, or video talking about the environmental cost of internet use. The respondents were ask to rate their opinion on five-point Likert scale from Agree to Strongly Agree.

Table 2. Awareness of The Environmental Impact of Use of Internet Among Youth

Awareness of Environmental Impact	**Agree**	Disagree	Not Sure	**Strongly Agree**	**Strongly Disagree**	**Total**
Watching videos in HD/4K uses more energy compared to lower quality	50.4%	3.1%	20.6%	21.4%	4.6%	100%
Frequency	66	4	27	28	6	131
Data centers (which store online data) consume a lot of electricity to run and cool servers	50.4%	3.1%	22.9%	20.6%	3.1%	100%
Frequency	66	4	30	27	4	131
Using the internet (like streaming, gaming, cloud storage) consumes electricity and adds to carbon emissions	53.4%	4.6%	23.7%	13%	5.3%	100%
Frequency	70	6	31	17	7	131
In the last 6 months, I have come across any article, post, or video talking about the environmental cost of internet use	26%	19.8%	39.7%	7.6%	6.9%	100%
Frequency	34	26	52	10	9	131

The findings in the table 2 indicate that 50.4% respondents agreed that watching videos in HD/4K uses more energy compared to lower quality. 3.1% of respondents disagreed. 20.6% of respondents were not sure.21.4%

strongly agreed and 4.6% strongly disagreed. Over all majority of respondents agreed i.e. 71.8% (50.4 Agree + 21.4% Strongly Agree) with this statement.50.4% of respondents agreed that data centres consume a lot of electricity to run and cool servers. 3.1% disagreed, 22.9% were not sure. 20.6% strongly agreed and 3.1% strongly disagreed. 53.4% of respondents were agreed that using the internet (like streaming, gaming, cloud storage) consumes electricity and adds to carbon emissions. 4.6% of the respondents were disagree. 23.7% were not sure. 13% were strongly agree and 5.3%were strongly disagree.26% of the respondents were agreed that in the last 6 months, they had come across article, post, or video talking about the environmental cost of internet use 19.8% were disagreed. 39.7% were not sure.7.6% were strongly agreed and 6.9% strongly disagreed. The above findings shows that majority of respondents were either agree or strongly agree for variable watching videos in HD/4K uses more energy compared to lower quality (71.8%), data centres consume a lot of electricity to run and cool servers (71%) and using the internet (like streaming, gaming, cloud storage) consumes electricity and adds to carbon emissions (64.4%).However, awareness appears comparatively low as the number of respondents either agreed or strongly agreed is relatively less for coming across any article, post, or video talking about the environmental cost of internet use. It reflects the dire need of research, information dissemination and awareness building in this area.

3) Frequency of Using Digital detox practices

The use of digital detox practices among youth were measured in terms of its frequency such as if they use digital detox practices sometimes, rarely, often, never or very often.

Table 3. Frequency of Using Digital detox practices

Frequency of Using Digital detox practices	Frequency	Percent
Sometimes	52	39.7
Rarely	30	22.9
Often	18	13.7
Never	17	13.0
Very Often	14	10.7
Total	131	100.0

The findings in the table 3 reveal that 39.7% of respondents used practices sometimes. 22.9% used them rarely. 13.7% used them often and 10.7% very often. 13% of the respondents never used digital detox practices. It can be inferred that although the awareness about the detrimental impact of use of internet on the environment is high (see Table 2), the actions to mitigate this impact are relatively low. Only 24% of respondents were found to use digital practices often and very often. The situation demands a shift from passive awareness to active engagement.

4) Current Digital Habits Among Youth

The current digital habits among respondents' youth were measured based on the variables such as 'I do not download content for offline viewing instead of streaming it multiple times, watch videos in the highest quality available (like HD/4K), I back up many photos/videos to cloud storage without regularly deleting or organizing them, keep auto-play switched on for video apps, so the next video starts automatically.

Table 4 Current Digital Habits

Current Digital Habits	Agree	Disagree	Not Sure	Strongly Agree	Strongly Disagree	Total
I do not download content for offline viewing instead of streaming it multiple times	48.1%	13%	16%	13%	9.9%	100%
Frequency	63	17	21	17	13	131
Watch videos in the highest quality available (like HD/4K)	40.5	22.1	14.5	19.8	3.1	100
Frequency	53	29	19	26	4	131
I back up many photos/videos to cloud storage without regularly deleting or organizing them	38.9	22.1	12.2	11.5	15.3	100
Frequency	51	29	16	15	20	131
Keep auto-play switched on for video apps, so the next video starts automatically	27.5	25.2	25.2	10.7	14.5	100
Frequency	36	33	29	14	19	131

The data in the table 4 illustrate that 48.1% of respondents agreed that they do not download content for offline viewing instead of streaming it multiple times13% of the respondents disagreed with this statement, 16% of the respondents were not sure, 13% of the respondents strongly agreed and 9.9% strongly disagreed. It was found that 40.5% of respondents agreed watching videos in the highest quality available (like HD/4K).Meanwhile, 22.1% of respondents disagreed with this statement, 14.5% of respondents were not sure,19.8 of respondents strongly agreed and 3.1% of respondents strongly disagreed. 38.9% of respondents agreed that they back up many photos/videos to cloud storage without regularly deleting or organizing them. 22.1% of respondents disagreed, 12.2% of respondents were not sure, 11.5% of respondents strongly agreed and 15.3% of respondents strongly disagreed.27.5% of respondents agreed that they keep auto-play switched on for video apps, so the next video starts automatically.25.2% of respondents disagreed with this statement, 25.2% of respondents were not sure, 10.7% of respondents strongly disagreed and 14.5% of respondents strongly disagreed. These findings also fail to find the alignment with level of awareness about the negative impact of the use of internet on the environment and the digital practices of youth. The youth should be encouraged to use simple, sustainable digital detox behavior in their day-to-day life.

5) Motivators that Influence Youth Willingness to Try Digital Detox as a Green practice

The motivators that influence youth willingness to try digital detox as a green practice were assessed using the variables such as: It improves my mental health and reduces stress, Idea of balancing screen time with outdoor or offline activities motivates me to practice digital detox, It helps me reduce unnecessary online time and save internet data, My friends or peers also practice digital detox, I feel encouraged to do the same, It helps in saving electricity and reducing carbon footprint.

Table 5 Motivators that Influence Youth Willingness to Try Digital Detox as a Green practice

Motivators that Influence Youth Willingness to Try Digital Detox as a Green practice	Agree	Disagree	Not Sure	Strongly Agree	Strongly Disagree	Total
It improves my mental health and reduces stress	48.1%	3.1%	19.1%	26%	3.8%	100
Frequency	63	4	25	34	5	131
Idea of balancing screen time with outdoor or offline activities motivates me to practice digital detox.	50.4%	6.1%	19.1%	21.4%	3.1%	100
Frequency	66	8	25	28	4	131
It helps me reduce unnecessary online time and save internet data	54.2%	3.8	19.8	19.8	2.3	100
Frequency	71	5	26	26	2.3	131
My friends or peers also practice digital detox, I feel encouraged to do the same.	40.5	9.2	26.7	21.4	2.3	100
Frequency	53	12	35	28	3	131
It helps in saving electricity and reducing carbon footprint	44.3	3.1	31.3	15.3	6.1	100
Frequency	58	4	41	20	8	131

The findings in the table 5 highlights that 48.1% of respondents agreed that digital detox improves their mental health and reduces stress. 3.1% of respondents disagreed with this statement, 19.1% of respondents were not sure, 26% of respondents strongly agreed and 3.8% of respondents strongly disagreed.50.4% of respondents agreed that idea of balancing screen time with outdoor or offline activities motivates them to practice digital detox. 6.1% of respondents disagreed with this statement, 19.1% of respondents were not sure, 21.4% of respondents strongly agreed and 3.1% of respondents strongly disagreed.54.2% of respondents agreed that digital detox help them to reduce unnecessary online time and save internet data.3.8% of respondents disagreed with this statement, 19.8% of respondents were not sure, equal % of respondents strongly disagreed and 2.3% of respondents strongly disagreed.40.5% of respondents agreed that their friends or peers also practice digital detox, it encourages them do the same. 9.2% of respondents disagreed with this statements,26.7% of respondents were not sure, 21.4% of respondents strongly agreed and 2.3% of respondents strongly disagreed. 44.3% of respondents agreed that

digital detox helps in saving electricity and reducing carbon footprint3.1% of respondents disagreed with this statement. 31.3% of respondents were not sure. 15.3% of respondents strongly agreed. 6.1% of respondents strongly disagreed. Overall findings indicated that a majority of the respondents were agreed and strongly agreed with these motivators to adopt digital practices. These motivators, when combined with effective awareness campaigns, have the potential to bring a significant reduction in internet use and thereby mitigate its negative environmental impact.

6) Barriers that Affect Youth Willingness to Try Digital Detox as a Green Practice

The barriers that affect willingness of youth to try digital detox as a green practice were examined using the variables such as: most of my studies/work depend on the internet, don't see digital detox as very practical because I need my phone/laptop for daily communication, lack of awareness about how internet use harms the environment makes me less likely to try digital detox.

Table 6 Barriers that Affect Youth Willingness to Try Digital Detox as a Green Practice

Barriers that affect youth willingness to try digital detox as a green practice	Agree	Disagree	Not Sure	Strongly Agree	Strongly Disagree	Total
Most of my studies/work depend on the internet	44.3%	6.1 %	27.5%	19.8%	2.3%	100 %
Frequency	58	8	36	26	3	131
Don't see digital detox as very practical because I need my phone/laptop for daily communication	42%	9.2%	29%	13%	6.9%	100%
Frequency	55	12	38	17	9	131
Lack of awareness about how internet use harms the environment makes me less likely to try digital detox	38.9%	6.9%	31.3%	13.7%	9.2%	54%
Frequency	51	9	41	18	12	131
Fear of missing out on social media updates	26%	18.3%	30.5%	13%	12.2%	100%
Frequency	34	24	40	17	16	131

The findings in table 6 show that 44.3% of respondents agreed that most of their studies/work depend on the internet. 6.1 % disagreed with this statement, 27.5% were not sure, 19.8% of respondents strongly agreed and 2.3% strongly disagreed. 42% of respondent agreed that the do not see digital detox as very practical because they need phone/laptop for daily communication. 9.2% disagreed with this statement,29%were not sure, 13% of respondents strongly agreed and 6.9% strongly disagreed. 38.9% of respondents agreed that lack of awareness about how internet use harms the environment makes me less likely to try digital detox. 6.9% disagreed with this statement, 31.3% were not sure, 13.7% of respondents strongly agreed and 9.2% strongly disagreed. 26% of respondents agreed that fear of missing out on social media updates is a barrier to use digital detox as a green practice. 18.3% disagreed with this statement, 30.5% were not sure, 13.7% of respondents strongly agreed and

12.2% strongly disagreed. The findings highlight the heavy dependence on use of internet for work or study indicating the need of exploring alternative digital habits that make digital detox more practical and environmentally friendly.

Result of Hypothesis Testing

H_0: There is no significant relationship between youth awareness of the environmental impact of internet use and the motivators that encourage them to adopt digital detox as a green practice.

H_1: There is a significant relationship between youth awareness of the environmental impact of internet use and the motivators that encourage them to adopt digital detox as a green practice.

Pearson correlation test was conducted to find out relationship between between youth awareness of the environmental impact of internet use and the motivators that encourage them to adopt digital detox as a green practice.

Table 7 Result of Pearson Correlation Test Conducted to Find Relation Between Awareness and Motivators

Awareness	Motivator	Correlation (r, p-value)
Data centers (which store online data) consume a lot of electricity to run and cool servers	Idea of balancing screen time with outdoor or offline activities motivates me to practice digital detox.	r = 0.304**, p < 0.01
Data centers (which store online data) consume a lot of electricity to run and cool servers	It improves my mental health and reduces stress	r = 0.274**, p < 0.01
Using the internet (like streaming, gaming, cloud storage) consumes electricity and adds to carbon emissions	Idea of balancing screen time with outdoor or offline activities motivates me to practice digital detox.	r = 0.222*, p < 0.05

The finding in table 7 reveals that, data centers (which store online data) consume a lot of electricity to run and cool servers and using the internet (like streaming, gaming, cloud storage) consumes electricity and adds to carbon emissions these variables related to awareness of environmental cost showed a significant positive relationship with the motivators. Strongest motivators linked to awareness were mental health benefits ($r = 0.274^{**}$, $p < 0.01$) and balancing screen time ($r = 0.304^{**}$, $p < 0.01$, $r = 0.222^{*}$, $p < 0.05$). Therefore, the null

hypothesis is rejected. Awareness campaigns should highlight environmental and personal benefits to strengthen motivation for digital detox.

Limitations of the Study

1. The study was limited to the selected variables only.
2. The study was conducted with a sample size of only 131 respondents.
3. The study was restricted to Mumbai city only.
4. Since most respondents were students, their answers were heavily influenced by their academic dependence on the internet.

Future scope of the study

- A study of this nature can be conducted with a larger number of respondents to enhance the generalizability of the findings.
- Since the current study was conducted in Mumbai, similar studies can be carried out in other cities for comparative analysis.
- The present study was conducted at the local level; future research can be extended to regional and national levels.
- Further studies on digital detox can be aligned with the United Nations' Sustainable Development Goals (SDGs), particularly SDG 3 (Good Health and Well-being) and SDG 13 (Climate Action).

Conclusion and Recommendations

Considering the degrading environmental conditions, digital detox has become the need of the hour. The findings of the study revealed that although there is awareness among respondents about the detrimental impact of internet use on the environment, digital detox practices are not adopted to the same extent. The results also highlight a dire need for further research, information dissemination, and awareness building in this area. Awareness campaigns must be conducted at all levels and for all age groups. The importance of sustainable digital practices should be integrated into the curriculum to ensure long-term behavioural change. To reduce dependence on the internet, institutions can introduce designated digital detox days or hours in schools, colleges, and workplaces. Counselling sessions focusing on balancing academic/work responsibilities with digital well-being should also be organised. Additionally, outdoor, sports, cultural, and community-based activities should be promoted to encourage healthier and more environmentally friendly lifestyles.

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