

# Language, Literature And Coping Skills: Bibliotherapy as A Non-Invasive Non-Pharmacological Intervention In Addressing The Ethical Concerns Of Digital Dementia Among Gen Z

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## Abstract

*Digital Dementia represents an emerging concern, reflecting the cognitive consequences of excessive reliance on digital technology. As the use of smartphones, social media, and digital devices becomes ubiquitous, individuals increasingly offload cognitive tasks such as memory retention and navigation onto external devices. This phenomenon has led to concerns about the potential long-term impact on cognitive function, particularly among Gen Z. Digital Dementia raises critical questions regarding autonomy and mitigating the risks associated with digital overuse. The medical community faces the moral challenge of balancing the benefits of digital technology with the responsibility to safeguard mental health. In an era dominated by smartphones, social media, and constant internet access, individuals increasingly depend on devices for information storage, navigation, and communication, potentially surpassing natural cognitive functions. This phenomenon is particularly concerning in younger generations. Despite their technological fluency, they may experience diminished attention spans, reduced memory capacity, and an inability to concentrate without digital aids. As digital devices replace traditional cognitive strategies, it may weaken working memory and modify the behaviour. Understanding Digital Dementia is crucial, as its effects may extend beyond individual well-being to societal impacts. This paper explores the ethical implications of Digital Dementia among adolescents, highlighting the need for preventative strategies, and conceptualises Bibliotherapy as a cleansing tool in their educational settings. Preventive measures, such as promoting digital detoxes, encouraging face-to-face interactions, and cultivating cognitive resilience, are essential to mitigate the effects of this emerging condition.*

**Keywords:** Digital Dementia, memory, mental health, Bibliotherapy, Digital Detox.

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## INTRODUCTION

Adolescence marks the transitional stage of growth from childhood to adulthood. In this phase, individuals grow both mentally and physically. This dynamic phase in human life undergoes a significant change in mental, physical, cognitive, and social processes. During childhood, individuals are dependent on others for their own needs. However, in the adolescent age, individuals move from the state of being dependent on others towards being autonomous. Adolescents experience a shift in their identity and develop complex cognitive abilities. This is a time of elevated vulnerability including mental health challenges, and the influence of external factors like technology, social media and peer pressure. Generation Z is the current generation of adolescents and Young Adults. The youngest of them are in their teenage and a majority of the current teenagers belong to this category.

## METHODOLOGY

This research employs a qualitative methodology to explore the impact of Digital Dementia on Generation Z and the role of Bibliotherapy as a non-invasive, non-pharmacological intervention. A systematic literature review was conducted to gather data from existing research studies, medical reports, and psychological analyses regarding digital dependency, cognitive decline, and the therapeutic applications of literature. Secondary sources, including peer-reviewed journal articles, books, and credible online reports, were analysed to construct a comprehensive understanding of the subject. The research also includes understanding the implications of Bibliotherapy interventions, and proposes to use it in educational settings, where students were encouraged to engage with literature based activities as an alternative to excessive screen usage.

Literature serves as a therapeutic medium by engaging individuals in reflective and immersive reading experiences, fostering emotional intelligence, cognitive flexibility, and psychological resilience. Through Bibliotherapy, literature functions as a cognitive exercise that strengthens memory, enhances focus, and provides a sense of emotional catharsis. By encouraging deep reading and narrative engagement, Bibliotherapy helps individuals reconnect with their cognitive faculties and mitigate the negative effects of excessive digital exposure. This research explores how structured reading sessions can offer a restorative alternative to digital overstimulation, promoting a healthier balance between technology use and cognitive well-being. Additionally, literature provides a means of self-exploration and personal growth. Stories offer diverse perspectives and foster empathy, allowing individuals to reflect on their own behaviour and emotions. This aspect of Bibliotherapy not only aids in reducing screen dependence but also cultivates mindfulness and mental resilience.

## RESULTS AND DISCUSSIONS

The increasing prevalence of Screen Time among Generation Z underscores the need for effective interventions. This section presents the key findings of the study, analysing the cognitive and behavioural effects of excessive digital consumption and the impact of Bibliotherapy as a restorative strategy. By examining participants' screen time habits, memory retention, emotional regulation, and engagement with literature, this study evaluates the potential of Bibliotherapy in counteracting the adverse effects of digital overuse. Reading enhances neural connectivity, activating brain regions responsible for imagination and comprehension, which may counteract the negative cognitive effects of digital overuse.

### **Generation Z: A Digital-Native Generation Facing Unique Challenges**

Generation Z, or Gen Z, is the first true digital native born between the mid-1990s and the early 2010s, succeeding the Millennials. With smartphones, social media, and the internet playing a major part in their everyday lives, this generation is the first to have grown up surrounded by digital technology. As they grew up in a world where information is immediate and global connection is commonplace, Gen Z is known for their ability to quickly adjust to new technologies and navigate digital environments with ease. Furthermore, this generation has specific challenges which include mental health issues rendered worse by social media stress and a highly competitive job market. Their experiences and perspectives are shaped by the digital world in unique ways. Oxford University recently chose 'brain rot' as the 2024 Word of the Year, citing its relevance among Gen Z (1). This word refers to the significance of mental health toil arising due to Gen Z's heavy digital intoxication. With the internet offering free access to the content of every available domain, adolescents nowadays are exposed to more information than ever before.

### **The Dark Side of Digital Dependency: Mental and Physical Health Concerns**

The development of technology has contributed to humankind in a greater way. Internet and internet-enabled devices have made life easier. Computers, smartphones, and screens play a huge role in everyone's day-to-day life. Nowadays, when people think of work, the first thing that comes to mind is the screen. This screen opens up a lot of offers. This includes new job offerings, writing for new positions, planning our daily lives with calendar apps, and sharing important and useful information with others. It further equips us to upgrade ourselves with new skills too. Apart from a productivity point of view, screens are also used for entertainment aspects too. It is up to an individual to decide, what an individual wants to use. When individuals spend way more time than what they want to do, it leads to screen time addiction and Digital Dementia.

The general concept of health and well-being includes both physical health and mental health. Today mental health problems are common in Indian adolescents (2). The mental health challenges are a significant concern for Gen Z. External stress factors like academic pressure, financial instability, hopelessness, and worries about the future can take a toll on their mental health. Smartphone and technology addiction also contributes to their mental health problems. Its constant use is connected with addictive behavior as it interferes with their sleep patterns, academic performances, and social development too.

### **Digital Dementia: Understanding The Cognitive And Behavioral Impact Of Excessive Screen Time**

The virtual learning environment Started to rapidly increase after COVID (3). People are stuck in their homes. The Internet has become a vital link to connect with the outside world. Students and researchers get used to heavy digital usage in lockdown as outside involvement is cut off. In Indian households, it's

common for people to share devices. However, confinement to our homes during the lockdown made each member of the family have their own devices. Kids in the home who are students need to study virtually and attend live classes through Google MEET, Zoom Calls, or Microsoft Teams. If there are multiple kids in the family, each one needs to have a separate smartphone or any other digital device to not clash with others' schedules. Parents also need to work online to discharge their office duties. Throughout the history of human evolution, people have been in front of their phones, computers, and other digital devices like never before in history. Researchers need to contemplate how this screen time is impacting one's brain and mental and physical health. It impacts our cognition and ability to think. It deregulates a person. Individuals affected with Digital Dementia no longer feel good in their lives.

Heavy usage of digital devices leads to a behavioural and cognitive problem called Digital Dementia (4). This behaviour describes an overuse of digital technology leading to the breakdown of cognitive abilities. With the advent of digital dependence, this is a modern-day health epidemic resulting in a sensory mismatch in the brain from the overutilization of technology. Overindulgence on the internet and internet-enabled devices leads to reduced attention, and decreased memory span and can also lead to Early-Onset Dementia. The overindulgence can lead to decreased mental effort to use memory and critical thinking.

Reports and statistics on internet users and social media users have significantly increased in the last three years, especially after the COVID-19 pandemic which shook the world. It has also conveyed that India is one of the top countries with the highest internet penetration rate. Taking the highest number of youngsters into consideration, this internet penetration rate is expected to grow further. A global report on internet usage says Asia is the home to the largest number of internet users with 2.93 billion count. In terms of countries, China, India, and the United States of America have the highest number of internet users(5).

One of the lethal effects of Digital Dementia is the Electronic Screen Syndrome (6). The brain gets drained because of the digitally linked Dopamine dependency. Overstimulation of the brain can be caused by consumption of excessive digital content, excessive gaming, or even due to continued social media presence. Stimulation rises higher when the screen time soars up. The inability to adjust one's mood, attention, or degree of arousal due to engaging with screen gadgets over-stimulates the youngster and puts the nervous system into fight-or-flight mode, resulting in electronic screen syndrome (7).

Excessive screen time leads to loss of social skills, behavioural problems, less sleep or irregular sleep, obesity, and violence. Prolonged screen time has both mental and physical impacts. One of the prominent impacts of screens on physical health is Tech Neck. The reverse curve in the spine of one's neck is called as Tech Neck. Frequent smartphone use may trigger non-neutral neck posture and musculoskeletal issues among adolescents called as Tech Neck Syndrome. A flexed neck position can cause discomfort and muscular tension in the cervical spine (8).

Similar to the physical effects there are psychological effects also. Neurohealth, an American mental health agency has studied the impact of screen time on mental health. An average smartphone screen resonates at 60 Hertz. The speed of Alpha waves in brain frequencies ranges from 8 Hertz to 12 Hertz. It peaks at 10 hertz. This Alpha Wave frequency is connected with the subjective state of being relaxed and conscious. In addition, this state of frequency is responsible for our brains to complete any tasks in our hands (9). So considering this key finding, we can understand that tiredness and fatigue happen when the human brain tries to match itself with that speed. This is a potential cause of stress and anxiety.

In real-time social settings, the human brain subconsciously picks up cues like gestures, signals, body language, and touch to respond and react suitably. However, engaging in digital space has the above-said aspect as a limitation. While using smartphones or any internet-enabled devices too much, these cues are missed. In cyberspace, our brain adjusts to the digital settings leading to disrupted conversations, exaggerated expressions, and lack of eye contact. Nowadays meetings and conferences happen quite often. So organisers prefer the virtual meeting Mode. Prolonged digital meetings in a continuous cycle lead to a condition called Zoom Fatigue (10). This terminology is used for over usage of any digital platform for online meetings. People are drained out physically and mentally after continuous video conferencing. So social isolation is a dangerous outcome of Digital Dementia. The cognitive functions are seen in decline among individuals who lack regular social interactions. Further social isolation can trigger chronic stress and activate the hypothalamic-pituitary-adrenal axis which can have detrimental effects on the brain (11). Individuals need to move towards digital well-being to fine-tune themselves while using internet-enabled and digital devices. One way to achieve digital well-being is to set limits on screen time. However, there

are other ways to reduce it too. Alternatives to screen time can be given to the brain that gives Dopamine for pleasure, Serotonin for joy, and oxytocin for connection. These alternatives could pave the way for diminishing the Digital Dementia behaviour exhibited by individuals. Activities in real-world and real-time engagements need to be developed for good neuro feedback.

### **The Role Of Social Media And Doomscrolling In Mental Health Decline**

A prominent habit that makes way for excessive screen time is Doomscrolling. It appears to be a continuous addiction cycle, in which the users are captured in viewing negative information (12). With Doomscrolling the perception of the world changes for a person. It gives fear and anxiety to people when they constantly see negative news and demoralizing content. Notifications can also be distracting. It could also trigger an unintended online presence for a long time. Even after turning off the device, it could create a compulsion to go back into the virtual world. People might be compelled to take their smartphones and engage themselves in the social media feed. There could also be a compulsion to consume explicit content. Daily exposure to constant negative information on social media takes a toll on mental health. This activity of Doomscrolling takes us to the behaviour called Digital Dementia.

The consumption of social media content is higher in this decade. Social Media platforms offer short videos for entertainment. Instagram offers Reels as a short video. The giant video-viewing platform YouTube offers Shorts, as cropped video. All these video marketing are targeted towards the Gen Z population. Research tells that an average person's attention span in the year 2004 was two and a half minutes. Nowadays with the advancement of digital technology and internet-enabled devices, it has reduced to just 47 seconds. There has been a 66 % decrease over the past two decades (13). So it is evident that the consumption of short content in social media platforms leads to social media addiction. Social media addiction paves the way for the dopamine hit and it remains a problem if not used at a controlled level(14). Studies reveal that the Gray Matter volume and the cortical thickness in the human brain decrease due to overindulgence of screen time (15). The results of research using positron emission tomography show both structural as well as functional changes in the parts of the brain involved in executive attention, decision-making, emotional processing, and cognitive control(16).

### **Bibliotherapy: A Non-Pharmacological Solution To Combat Digital Dementia**

Multidisciplinary and holistic education are the key parts of the National Education Policy 2020. Medical Humanities programs and research are increasingly becoming common around the globe. It can re-humanize care via narrative medicine. It includes the role of Literature and Humanities in understanding healthcare. An efficient application of the Medical Humanities intervention can lead to a possible cure. One of the intervention techniques is Bibliotherapy. This therapy technique relies on books to promote positive mental health. This treatment is cost-effective and versatile, making it a popular addition to other therapies.

The World Health Organization stresses the invocation of Non-Pharmacological Interventions in addressing mental health issues of adolescents. They require special attention. Adolescents' mental health relies upon avoiding institutionalization and over-medicalization, offering non-pharmacological treatments priority, and upholding children's rights by the UN Convention on the Rights of the Child and other human rights documents (17). The Digital Dementia behaviour can be altered by the invocation of Bibliotherapy as a non-pharmacological intervention. To improve the mental well-being of internet addiction, Digital Detox needs to be achieved. This can effectively be achieved via Bibliotherapy, by altering the behaviour of the individuals.

Bibliotherapy is derived from the Greek words 'biblion' meaning book and 'therapeia' meaning healing. It is a non-pharmacological intervention that uses literature to support mental health and personal development. Historically, Bibliotherapy has roots in ancient Greece and has evolved through various cultural contexts. Today, it encompasses a broad range of practices, including self-help literature, structured reading programs, and therapeutic Bibliotherapy facilitated by mental health professionals. The therapeutic qualities of Literature can be achieved through Bibliotherapy.

The term Bibliotherapy was coined by Samuel McChord Crothers in the twentieth century. However, the concept of using Literature to support mental health has been prevalent since the middle ages (18). The genre of books in Bibliotherapy encompasses multiple categories. Fiction, non-fiction, and self-help books can be offered to individuals struggling with mental health. It has to be done with the input of a Bibliotherapist, who handpicks peculiarised subject content for individuals with unique needs.

Self-awareness needs to be raised to have moderate screen time and reduce the effects of it. Lifestyle Medicine suggests the use of books for reducing screen time addiction (19). Bibliotherapy can create a

green zone for optimal brain performance. It can be used as a brain reset activity. It brings the brain out of a tired pattern and makes it neuro-productive. It helps an individual to open one's focus that has been closed toward a screen. It will help to reverse the screen time effects. To maintain good mental health, self-awareness needs to be maintained. Having good mental health must be a concern for everyone and it is not restricted to people with mental disorders alone. Improving people's and communities' capacities and empowering them to reach their objectives are important to mental health.

Research on Bibliotherapy conveys us that it has been successful in different settings. It can also be used in clinical and non-clinical environments. Academic institutions can use Bibliotherapy in a classroom setting for intervention among schools and colleges. Mental Health clinics can use it for the benefit of their patients, and to support their mental health. Bibliotherapy is a potential tool to have positive impacts in different settings. Research conveys us that patients gained several skills from Bibliotherapy sessions, such as the ability to reinterpret their actions from a different perspective on their moral horizon(20).

To overcome Digital Dementia and achieve Digital Detox, the creativity of an individual needs to be sharpened. People have to express their creativity in one way or the other, to keep themselves active. Humanities and Arts can provide a possible way for individuals to keep themselves engaged in real-world scenarios. Creative activities can divert us from stress and depression. In today's touchscreen world, Digital Dementia is rising among Gen Z (21). Gen Z youngsters have to rely on digital media both for their work and studies. At the same time, they should not be intoxicated by its overuse. This overuse could lead to cognitive disabilities and communicative impairments. Problems in language production and communication are identified as a lethal cognitive disability. The solution to this problem can be achieved via non-pharmacological intervention (22). Bibliotherapy can be used effectively as a therapeutic medium to maintain mental health and address cognitive disorders. Further, it also acts as a supplement tool in eradicating screen time. Bibliotherapy involves the usage of books and other forms of literature to support mental health and repair communication problems. It can be seamlessly applied to persons showing anxiety, depression, and trauma and also to those struggling with addiction.

Decline of attention is a pivotal charge of continuous screen presence. To get back that attention, Bibliotherapy as a therapeutic enterprise can be involved. So with the individual involvement digital dementia can be significantly reduced. Studies reveal that Perceptual Stress is a product of screen addiction(23). This Perceptual Stress is an outcome of an individual's belief system and their perception of the scheme of things (24). Considering these insights we can use Bibliotherapy as a therapeutic enterprise in Digital Detox.

## CONCLUSION

Digital Dementia can be primarily viewed as a behavioural problem. It remains a behavioral problem in the sense that it stems from habits and patterns of excessive dependence on technology, but its effects are cognitive, leading to issues with memory, focus, and mental clarity. The best way to modify any behavioural addiction is through non-pharmacological intervention. Bibliotherapy can be an effective medium both in elimination or screen time addiction and also acts as a cleansing tool. With the usage of non-pharmacological intervention, one can completely reduce the consequences of side effects which come a part of the pharmacological intervention process. The novelty of this research paper lies in the concept of connecting digital well-being with Literature. Bibliotherapy assures self-affirmation in the psyche of the individual as Literature in itself is a subjective subject.

The modern days come up with newer problems, which the human community has not seen earlier. The solution to modern-day problems can be modern or conventional in terms of the need and its appliance. Behavioural problems like Digital Dementia can be treated better with non-pharmacological interventions. Humanities and Arts offers a lot more solutions in terms of both understanding the issues and addressing them. The more we use Humanities for practical problems, the more understanding of the problem is achieved. Medical Humanities and Non-pharmacological interventions are not binary opposite to the biomedicine models. It is a supplement tool to support the intervention. Smartphones and other digital devices are indeed a boon to humankind. A mindful use of the same will lead to better mental health.

## Abbreviation

Nil

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### Author Contributions

Both the authors contributed equally to the study

### Conflict of Interest

The authors state that they have no conflict of interest.

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Not Applicable

### Ethics Approval

Not Applicable

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