



"TECHVOLUTION: UNRAVELING THE IMPACT OF TECHNOLOGY ON HUMAN LIFESTYLE AND STRATEGIES FOR ADAPTATION"

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ABSTRACT

Technology has revolutionized the way we live, work, and interact with one another. The effects of technology on society have been both positive and negative. While technology has made it easier to connect with others, access information, and improve medical care, it has also led to job loss, cyberbullying, and technology addiction. It will be essential to consider the potential impacts of new technological advancements and work to mitigate any negative effects. Ultimately, it is up to all of us to ensure that technology is used in a way that benefits society as a whole. In the coming years, we can expect to see new technological advancements that will change the way we live and work. However, there are also concerns about the impact of technology on society in the future. In this article we have tried to review the positive and negative impacts of technology and how this generation can make technology their friend and not struggle with its negative effects.

KEY WORDS: Technology, impacts, concerns, mitigation

INTRODUCTION

Science and technology are important components of modern life. They have long gone beyond local boundaries and today affect the lives of everyone. Technological products have always changed and continue to change a person's life. Somewhere in the positive direction, somewhere in the negative, but usually there is more benefit.

Technology has made it easier than ever to connect with people all over the world. With the rise of social media and messaging apps, we can now communicate with friends, family, and colleagues in real-time, regardless of where they are located. The invention of the Internet itself has allowed people to retrieve & share information according to their data requests incredibly fast. In fact, the internet has proved that human society evolution is about data. Nowadays we can chat with friends around the world online anytime and it takes only seconds to send & receive the messages, whereas earlier we had to wait for weeks in order to get mails.

Technology is a lifeline for mankind; without it, survival is impossible. The Covid outbreak emphasizes its importance even more. The usefulness of technology in staying connected, working from home, and having

access to medical services has been evident in these challenging times. Expanded security, enhanced communication, increased information, education, and, last but not least, amusement are vital aspects of technology.

As a result, it's more important than ever to comprehend the advantages and disadvantages of technology. Analysing the impact of technology on society in various areas could also be beneficial. Organization systems have progressed to the point where it's difficult to imagine even a small business operating without basic technology such as desktop PCs for receiving email and document storage. For the most part, technological developments have sped up workflow and supplied critical information-organization systems.

The invention of cars allowed humanity to travel faster and further. The invention of the aircraft allowed people to travel even longer distances and do it significantly faster than ever before. The invention of ships made it possible to discover new lands. All those inventions provide people with possibility to move anywhere in the world relatively fast. And with invention of the rockets, people are able to visit space and are getting ready to discover new worlds.

The internet has made it possible to search for and find information on virtually any topic. Additionally, technology has made it possible for people to access education and training, no matter where they live.

Bioengineering has benefited the environment, human health, and nutrition thanks to technology. Biotechnology is any process or product that benefits living things or the environment in which they live. Technology has made it feasible for devices that have tremendously benefited in healing people. Deaf people can hear, dumb people can speak, and technology has performed wonders you can't even begin to fathom. Humans can now travel to distant worlds because of technological advancements.

With the help of technology, doctors and researchers have made significant strides in treating and preventing diseases. Technology has made it possible for medical professionals to access patient records and communicate with other healthcare providers, which has improved the quality of care for patients. Such development allowed humanity to plan a family, overcome many viruses (based on wide range of vaccinations), successfully and timely diagnose and treat diseases, carry out operations of different complexities. A serious achievement in medicine over the last century is mainly associated with the development of surgery and treatment of viruses. In fact, the development of medicine made it possible for humans to live significantly longer than ancient people could ever imagine.

METHODOLOGY

The study adopted field survey approach as primary data source for investigating the research problem. The nature of study is exploratory. A representative and qualitative data collection and research has been done, providing comprehensive metadata on the past and present scientific landscape of technology and its effects, its incentives, its benchmarks, and its challenges and requirements. The quality of the database depends on the appropriateness of the search strategy applied. The search term must involve all important synonyms. For this study the terms: "Technology", "positive effects or advantages", "negative effects or disadvantages" and "adaptations" were applied. To retrieve only the original research publications, only data from the publication type "Articles" was downloaded. No limitation of the evaluation period was made so that most articles till October 2023 were included in the analysis. Secondly survey is able to provide a complete picture of affected computer users and also able to increase awareness about these health issues.

EFFECTS OF TECHNOLOGY

Our world would be unimaginable without technology. It currently has a position among the necessities of the planet. Technology is the term used to describe the application of scientific knowledge in practical situations. It increases the utility of products and services and contributes to value creation. It benefits us in several ways and makes any task easier. A study in 2019 found that spending too much time on the internet, to the point of dependence, can impact our mental health. Undoubtedly addictive internet usage can negatively affect us, especially people who work in technology. The modern digital age has given us access to vast information,

simplified many aspects of our lives, and has outmatched our capability to connect with others across the globe. It does, still, come with many disadvantages.

Our tech-driven world leads to increased stress for people of all ages. Mental stress affects our overall health and heart by disturbing our body's natural habits and patterns like digestion, sleep, and immunity. However, to improve your mental health, you'll need to eat healthily, work out regularly and listen to your body.

Technology thus contributes to significant time savings and increased productivity. We can complete important assignments more quickly. Nowadays, everything is automated, and technology helps to save a lot of time by performing activities that humans are unable to perform. For instance, you may get clothes online and have them delivered to your home if you need more time to go shopping. Consequently, one can use the time for other crucial tasks by using technology.

If you purchase a television and it malfunctions shortly after. It would be beneficial if you could put your worries about the TV's warranty coverage aside. To get your TV mended, all you have to do is call the business or its customer assistance. As a result, communicating now only requires a phone call or letter.

As a result of technology, communication is now easily accessible. With the use of technology, you can complete many tasks with a single click, including placing online orders, making calls, sending emails, and sending faxes. Technology has helped us improve our communication channels. If you miss your loved ones, you are no longer required to write them letters. Call them on camera to get a feeling of their proximity.

Today's technology is so advanced that apps are made specifically to spot fraud in just a few seconds. Cyberattacks have decreased because sophisticated algorithms are now available to detect all forms of cybercrime. Technology has increased people's safety. With the help of technology, CCTV cameras have been developed to safeguard your possessions at home and work. Everything was caught on tape, which makes it easy to identify the thief. Our mobile phones, computers, and Godrej lockers have lock mechanisms to protect our data and other assets. Your phone, laptop, and other electronic gadgets can all be unlocked using face, eye, or fingerprint identification.

It was challenging to keep all of those paperwork and office stacks safe from calamities. However, today even a room's worth of documents can fit on a single flash drive. It not only made your data more secure and protected, but it also cleared up a lot of desk space.

As was already mentioned, youngsters today are far more reliant on technology than textbooks. As a result, teachers may readily connect with kids using the same without there being a teacher-student gap. They can create presentations for the classroom, conduct online whiteboards, and gather data from websites like Wikipedia and other online resources. Therefore, technology has a good impact on education. (JavaTPoint, Blog)

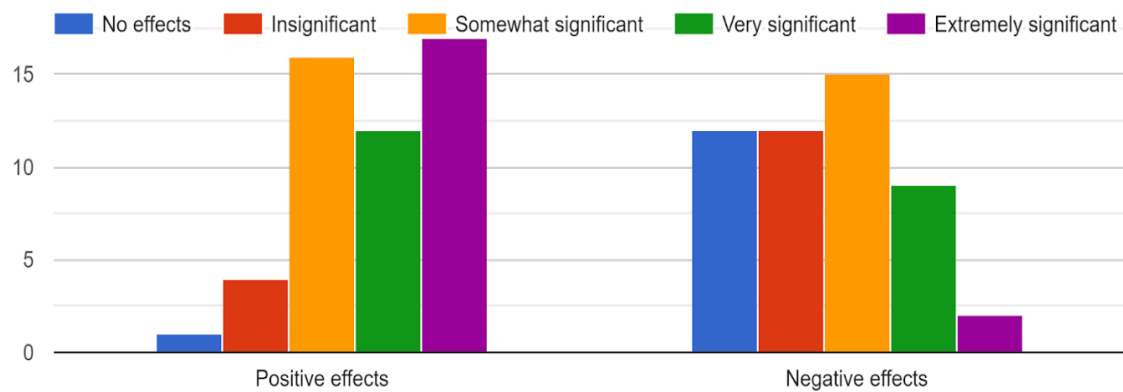
When we talk about the increasing number of people who are addicted to technology, we immediately picture smartphone zombies who can barely hold a conversation because they're constantly busy scanning their phone's push notifications. But a brief scan of the facts reveals a shocking truth: we are all tech junkies, to a certain degree. Most of us spend almost three hours a day on our smartphones and tablets, not counting all the time we're on the computer.

Has technology hijacked our quality of life? The amount of time that we are spending relating to and through our devices has grown exponentially in recent years, and the cost of that growth has come largely at the expense of the things that are seen as the essential factors in promoting good health, quality relationships, and a high level of personal wellbeing.

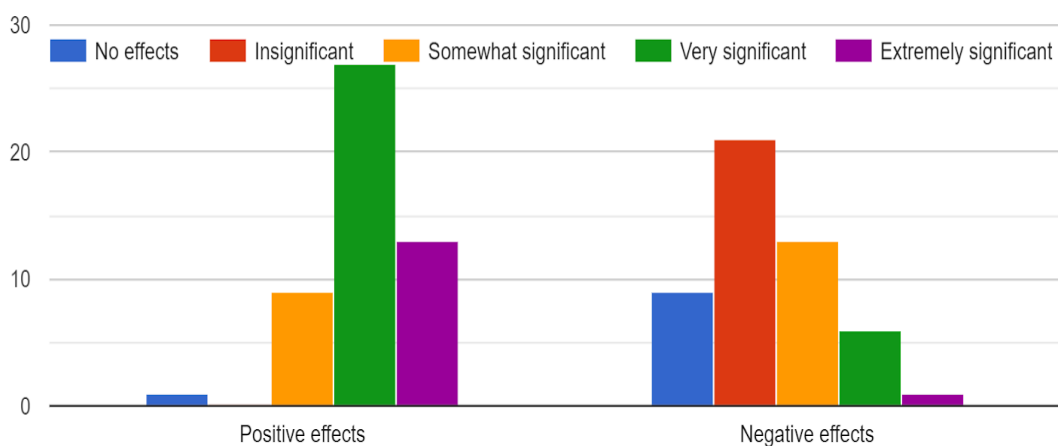
Computers are considered as an integral part of everyday life in today's work and life. They are used in a wide variety of professions from banking, health, communication to entertainment and leisure time. "Thanks to the" great use of computers, occurs the diseases of the modern era. So why does technology have so many harmful effects on our bodies? It may be because while traditional tools evolved over eons, technology evolves more rapidly than our understanding of how we'll use it, says Barry Katz, professor in the industrial design and graduate program in design at Stanford University. "It may have taken 10,000 years to evolve the form of

a sewing needle, or 2,500 to evolve the form of the safety pin," he says. "That gives a lot of time to work out the kinks in the system." But modern devices, from the mouse to the ear bud, were invented from scratch. "You know about the electronics inside, but you don't know how people are going to use it," Katz says. He promises that designers are continually fine-tuning our gadgets to make them more helpful and less harmful. Until they're perfected, though, he advises to take extra care to make sure the gizmos don't put a kink in our health. (Susan Kuchinkas, July 2012)

How significant are the effects of technology on your social life?



How significant are the effects of technology on your education?



Regarding the effects of technology on education, Tahoma students said that the positive effects were notably more significant than the negative; they reported similar results regarding the impact on their social lives. See below for survey results. (Avi Mehra, January 2019)

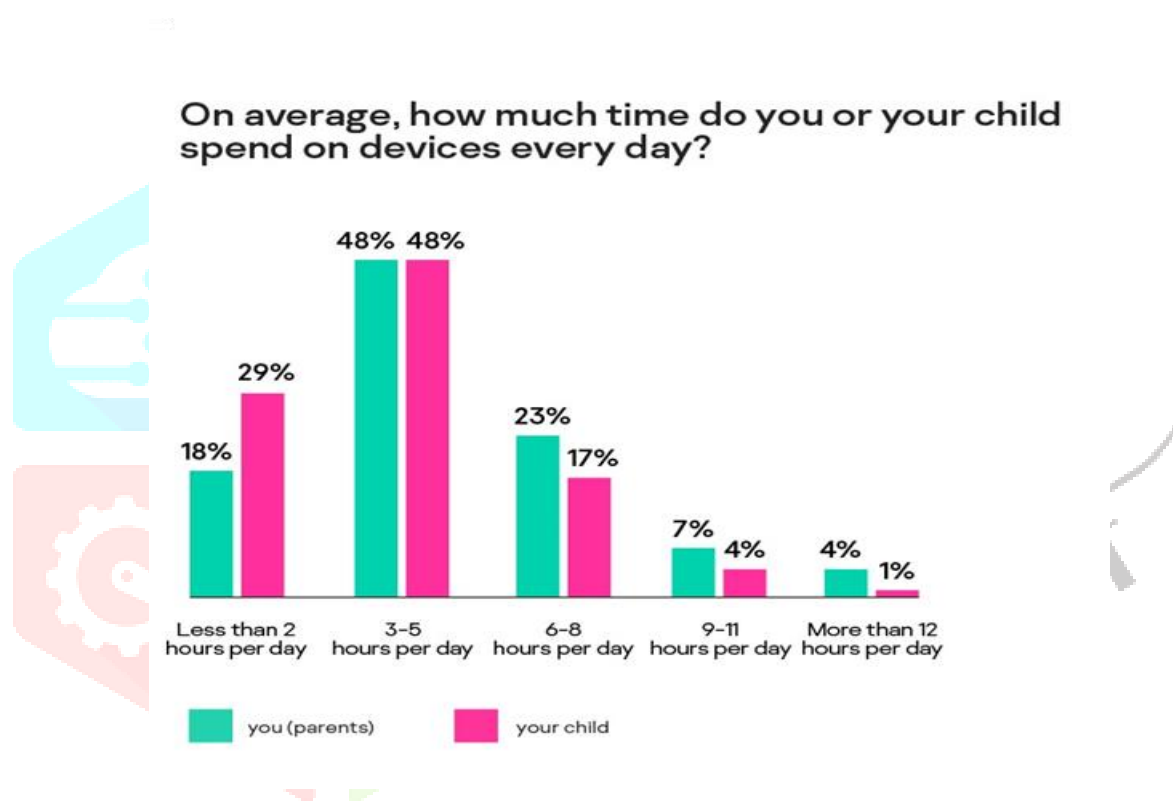
Computers are considered as an integral part of everyday life. They are used in education, health and medicine, science, banking, recreation and entertainment, politically engaged people. Approximately 75% of jobs are dependent on the work on the computer.

Today, 61% of children get their first digital devices between the ages of 8 and 12. In fact, 11% get their first gadget before they're even 5 years old. They're using these devices to complete school assignments (46%),

watch videos (54%) and play games (60%). And 48% of them are spending an average of 3-5 hours a day on some kind of device. Globally, people average 6 hours 58 minutes of screen time per day. Daily screen time has increased by nearly 50 minutes per day since 2013. Gen Z averages around 9 hours of screen time per day. (Kaspersky Daily)

Even though 53% of parents wish their children would spend less than 2 hours a day on devices, only 29% of parents report that's actually the case. Still, 58% of parents feel their children spend just enough time on devices with only 33% feeling their kids spend too much time. As it turns out, there's a stark correlation between the amount of time parents spend on devices and the amount of time their children spend.

Exactly 48% of parents report both that their children spend between 3 and 5 hours a day on gadgets and that they themselves spend the same amount of time on devices too. Clearly there's a connection between parents' digital habits and those of their kids. Globally, 87% of parents believe it's primarily their responsibility to regulate their children's digital behaviour. But parents can't do it all on their own. More than a quarter of all parents believe this responsibility also falls on schools (28%) and children themselves (27%) (Kaspersky Daily)



The latest figures suggest the average person spends upwards of 40% of their waking hours on an internet-connected screen. And given the 30% jump between 2019's mobile device screen time (2 hours 56 minutes) and 2021's (4 hours 12 minutes), global screen time averages are likely to continue to grow. (Data reportal, January 2022).

From phones to tablets and smartwatches to TVs, screens are everywhere. The vast majority are connected to the internet nowadays. And the average time spent using the internet via our screens is on the rise. (Moody Rebecca, March 2022). Perhaps unsurprisingly, young people spend more time in front of screens than average. In fact, a recent study revealed that Gen Z spends around 9 hours per day looking at a screen. (Pew Research Centre, July 2020)

41% admit to finding screen time management challenging. And a concerning 21% feel guilty about how much time their children spend on screens. Excessive screen time can have very real knock-on effects - especially in children. Elementary-level school children who wrack up 2+ hours of screen time per day are more likely to suffer from social, emotional, and attentional issues.

Technology affects us in different ways. Did you know when you receive a text from a dear friend, your body releases dopamine? Yes, it is true. When the brain knows that you are happy or you are going to be rewarded, then the brain releases dopamine. It is related to technology. Imagine you are so connected to technology that you get affected mentally, physically, and emotionally.

When you use your phone or computer, or laptop, then the rays coming out from the computer affect your mental as well as physical health. Did you know the more you use the screen, there are more chances that you can be prone to depression, eye problems, headache, insomnia, anxiety, and other health issues?

People are no more physically active as they are dependent on technology for every little thing. They don't have to work hard or do any physical activity to get things done. It is due to the presence of technology around them 24X7. This is what is making them physically unfit and inactive.

Are you aware of the fact that technology affects you emotionally too? With the regular use of technology, people tend to get affected emotionally. If you are expecting a message from someone and you do not get it, you tend to get frustrated and angry. Thus, technology also affects human emotion. (Prasanna, March 2023, AplusTopper)

However, a whole host of damaging side effects are linked with too much screen time, including: Sleep deprivation - Blue light interferes with melatonin production and disrupts the body's circadian rhythm. Obesity - Data shows a strong association between screen time and obesity in children aged 5 to 17, most likely due to the sedentary nature of viewing a screen. Susceptibility to Type 2 Diabetes - In the UK, children aged between 9 and 10 who spend 3+ hours on the screen each day were more likely to show resistance to insulin. Delayed learning - Young children who watch excessive amounts of TV can experience difficulties picking up the language. (Mayo Clinic health System, May 2021)

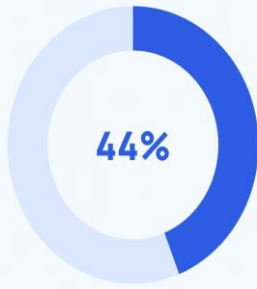
Children's brains are still developing and may be more sensitive to the effects of technology and its overuse than adult brains. A 2018 review of various studies noted the possible adverse effects of children using different technologies. (Ricci RC, et. Al; 2022). Children who overuse technology may be more likely to experience issues, including: low academic performance lack of attention low creativity delays in language development delays in social and emotional development physical inactivity and obesity poor sleep quality social issues, such as social incompatibility and anxiety aggressive behaviors addiction to these technologies higher BMI

The research also noted the importance of teaching children to interact with these technologies in healthful ways by monitoring their time using them and providing interesting alternatives. Additionally, a study of teenagers aged 15–16 Trusted Source found that those who had high digital media use had an increased chance of developing symptoms of attention-deficit hyperactivity disorder (ADHD).

When we talk about the increasing number of people who are addicted to technology, we immediately picture smartphone zombies who can barely hold a conversation because they're constantly busy scanning their phone's push notifications, or that time your most selfie-centered friend nearly got hit by a car while trying to take the perfect curbside Instagram. But a brief scan of the facts reveals a shocking truth: we are all tech junkies, to a certain degree. Most of us spend almost three hours a day on our smartphones and tablets, not counting all the time we're on the computer.

According to the latest available data, the average person spends 6 hours and 58 minutes per day on screens connected to the internet. That's a 1% (4 minutes) increase over 2021's figure - equating to 5 billion+ days when extrapolated across all global internet users. Overall, daily screen time is up 13% (49 minutes) since 2013. On average, people spent 44% of their waking hours looking at a screen. (Josh Howarth, January 2023)

On average, people spent 44% of their waking hours looking at a screen



The average person spends 6 hours and 58 minutes per day on internet connected screens

Has technology hijacked our quality of life? The amount of time that we are spending relating to and through our devices has grown exponentially in recent years, and the cost of that growth has come largely at the expense of the things that are seen as the essential factors in promoting good health, quality relationships, and a high level of personal well-being.

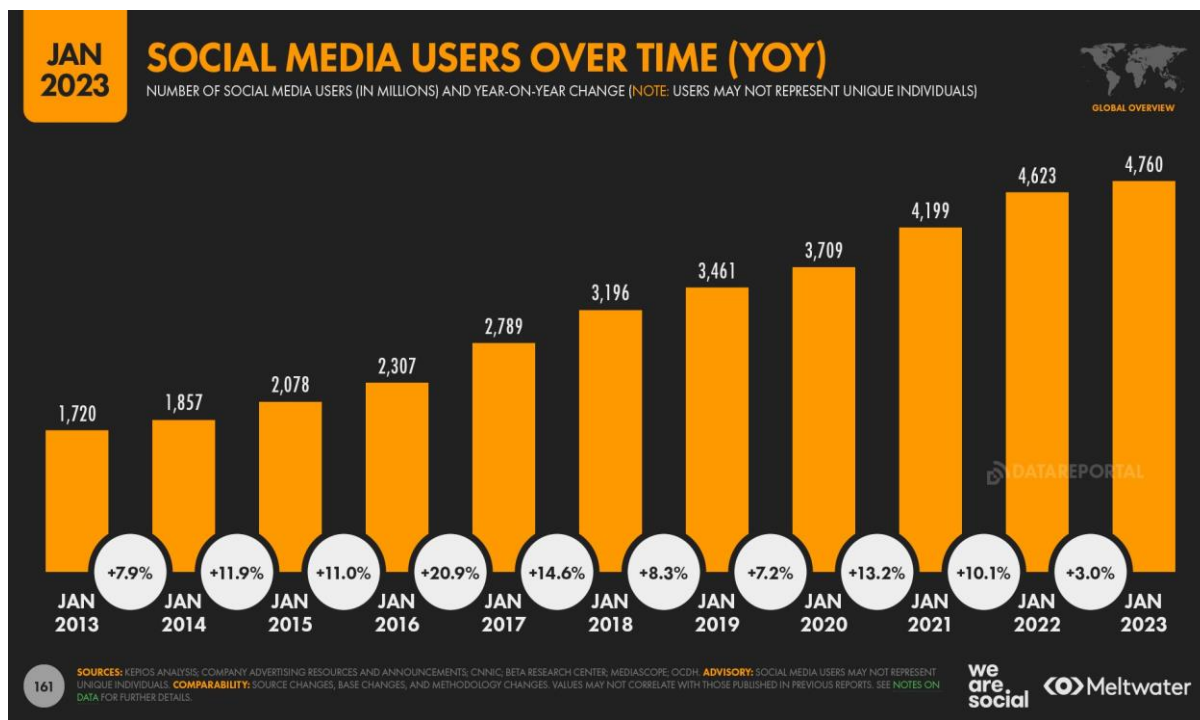
What many of us consider to be “new technology” is no longer so new, and the past two decades—during which a great part of our society’s day-to-day life has been spent in front of a screen—have not passed without leaving their mark. Our routines and work processes have been transformed, often with very positive effects. However, excesses of any kind are detrimental to people’s health, and the use of technology is no exception. Consequently, technological diseases are becoming more and more common.

NEGATIVE IMPACTS OF TECHNOLOGY ON HEALTH

Addiction to technology, particularly to internet use, is drawing increased attention around the world. Earlier this year, National Institutes of Health decided for the first time to fund a study of internet addiction in the United States. Although there is not yet a consensus in the scientific community as to the exact definition and criteria for technological addiction, it is generally recognized that a significant number of people are suffering from excesses of online activities including gaming, gambling and even just obsessively surfing social media. (Aleteia, November 2017).

Technological diseases are diseases of the modern era. Some are caused by occupational exposures, and are marked with direct professional relation, or the action of harmful effects in the workplace. Due to the increasing incidence of these diseases on specific workplaces which may be caused by one or more causal factors present in the workplace today, these diseases are considered as professional diseases. Severity of technological disease usually responds to the level and duration of exposure, and usually occurs after many years of exposure to harmful factor. (Acta Inform Med, Oct 2014)

As of July 2023, there were 5.19 billion internet users worldwide. Of these, 4.88 billion were social media users. Between January 2013 and January 2023, the number of social media users almost tripled, from 1.7 billion to 4.76 billion. (Maricel Rivera, Nov. 2023)



The unemployment rate has drastically increased as technology has developed. People rely on computers for all of their tasks as well as for their survival. The ability of a single computer to quickly finish a substantial amount of work has also increased unemployment.

In the present world, some technologically savvy people have become hackers. Therefore, your data is not at all safe with you. With the help of the latest technologies, they may hack your computer, bank accounts, office data, and much more from the comfort of their home. Now that there is a substantial chance of fraud, online sharing of OTP and other information is perilous. It's more likely for data to end up in the hands of terrorists, hackers, criminals, and other foreign adversaries when even a single piece of information is shared online.

People are easily distracted by using various gadgets instead of reading anything worthwhile. Children, adults, and young people are all active on social media, which keeps them from doing their daily responsibilities. It can be challenging for today's youth to concentrate on their education because most of them own a phone or laptop.

People in today's society are so engrossed with technology that they neglect to take good care of themselves. Their health is impacted in various ways by this. They suffer from eye issues, obesity, sleeplessness, and many other conditions. Some folks use their phones to fall asleep. Some people find it challenging to focus on their homework because they regularly check their phones.

The internet exposes people, particularly students and young people, to unsuitable apps. They are using illicit apps which are suitable for their developing minds. Simply because of the internet and technology, some people find humour in things that are not amusing.

Some people are addicted to their daily movie-watching, internet gaming, and dating services. Some are addicted to playing online slots, which can have a variety of negative impacts. Everything, including technology, is bad.

Technology has a noticeable impact on social interactions. It affected our social lives in ways that were both positive and negative. Through social media, technology has virtually united people who live in different places while isolating them from their families and neighbours.

It is essential to discuss how cost-effective modern technology is when discussing the benefits and drawbacks of technology in education. Even if there are many iPads and laptops available, the sad fact is that most of them are out of reach for average or middle-class consumers. In the same vein, pricey technology is intangible to elementary schools. As a result, there is inequity in the educational system, and affluent schools with more

resources have smart classrooms filled with high-tech equipment. It is also accurate that it affects non-educational industries.

It is a fact that certain people still require training to use technology. Students and teachers must attend additional training to stay current with technology, particularly in the educational system. As a result, the high-tech educational system is challenging to adjust.

One of the worst effects of technology on people is this. All of the water, land, and air were severely polluted by factories and modern technology. Even though factories produce goods that are helpful to humans, they greatly harm the earth and its ecosystem in the process.

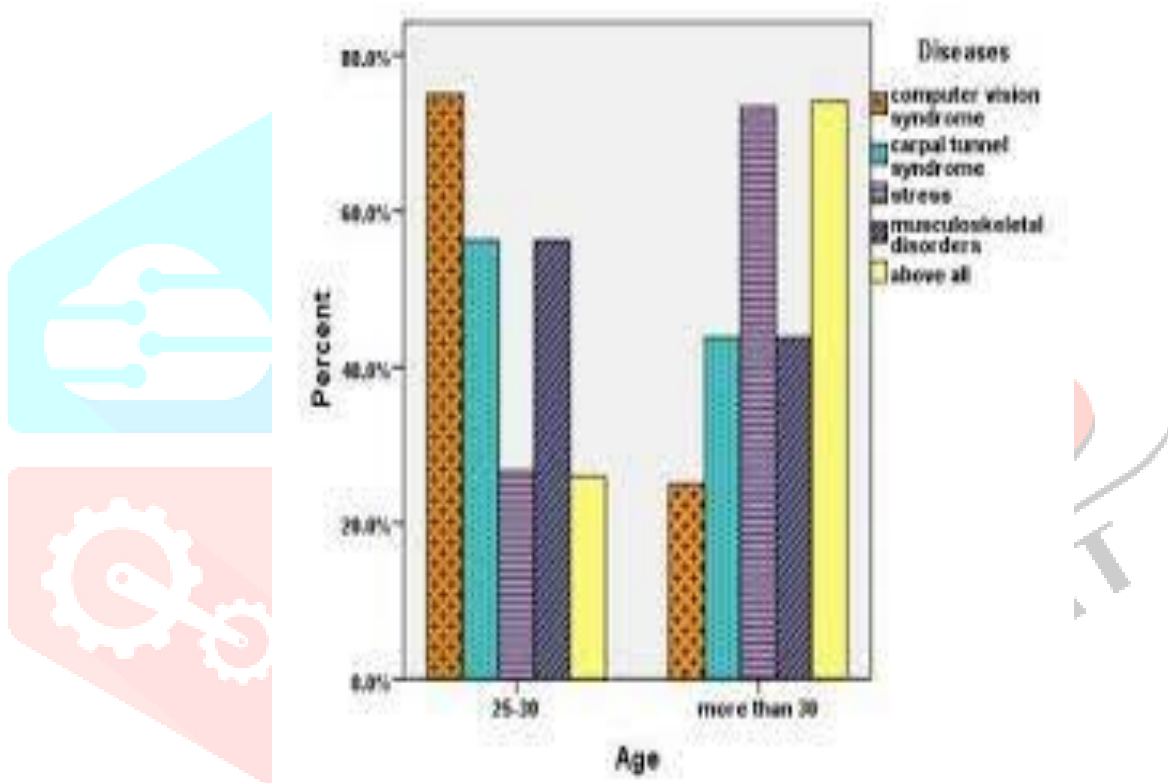
One drawback of technology in society is its inability to guarantee complete safety. While the actual documents and filing cabinets were reduced to a few 1s and 0s inside the chip, they became exceedingly simple to manage and transfer. Additionally, it got somewhat simpler to steal them at the same time. Spammers and hackers are always attempting to steal private data from both large corporations and everyone's devices. Numerous cyberattacks have already been reported, thus it is obvious that technology is insecure. (JavaTPoint, Blog).

Let us understand the health impacts of Technology

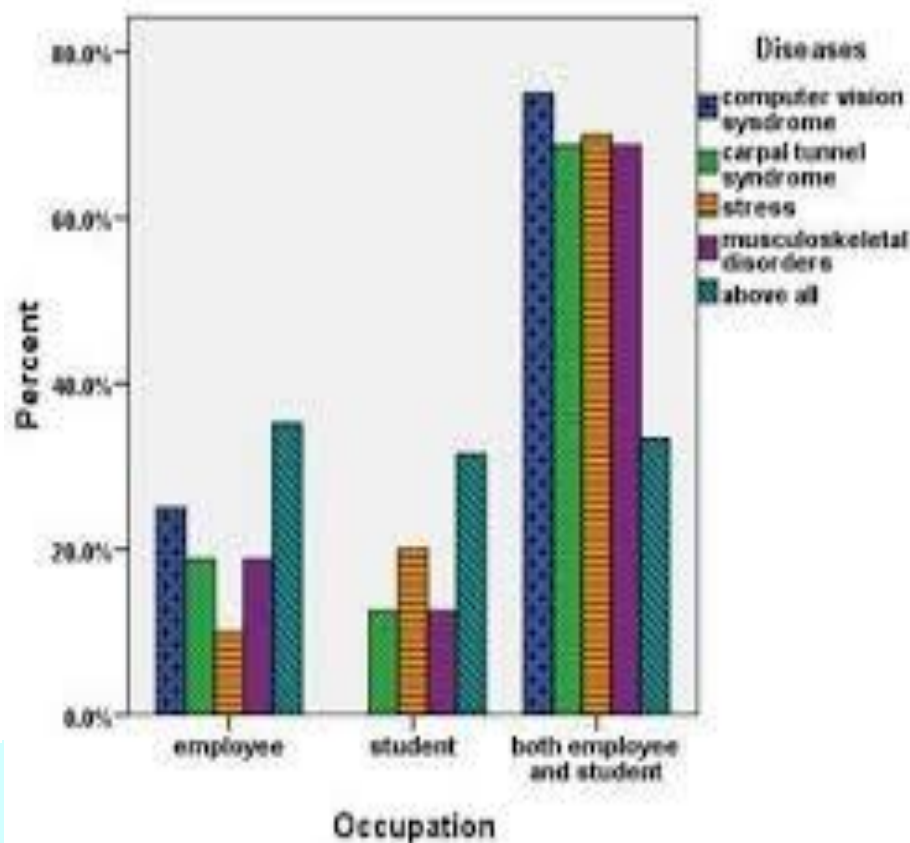
- Eye strain (in addition to other eye problems) can be caused by spending too much time looking at a screen. Symptoms include red eyes, blurry vision, and in more extreme cases, even nausea. It may lead to Computer Vision Syndrome as the human eye is not adapted for staring at a single point in space for hours on end. If we log significant time in front of a computer monitor, we probably experienced computer vision syndrome: eyestrain, tired eyes, irritation, redness, blurred vision, and double vision. Luckily, this isn't a permanent condition and it can be cured with a proper care.
- Carpel tunnel syndrome (CTS) is the most common canalicular syndrome resulting from pressure on the central nerve (median nerve) in the carpal tunnel and reflected in reduction of sensation, pain, paresthesia (numbness, tingling), and muscle weakness in the hands and forearms.
- The way many people use mobile devices and computers may also contribute to incorrect posture. Over time, this may lead to musculoskeletal issues. Many technologies promote a "down and forward" user position, meaning the person is hunched forward and looking down at the screen. This can put an unnecessary amount of pressure on the neck and spine. A 5-year study in the journal Applied Ergonomics found an association between texting on a mobile phone and neck or upper back pain in young adults. The results indicated the effects were mostly short term, though some people continued to have long-term symptoms.
- Long-term work at the computer leads to inflammation of tendons and exchanges shoulder joint, and in severe cases can lead to tearing of tendons and muscles. If inflammation persists, the capsule and ligaments of the shoulder joint becomes stiffer and limited mobility. Inappropriate placement of computers may have adverse effects on posture in children (Picavet HS., 2003). The long term limited and painful mobility is especially pronounced when raising your arms above your head or behind your back. Long-term pain becomes stronger and leads to the development of muscle weakness areas of the shoulder belt through a series of hands, and preventing further activities. Symptoms of pain in the shoulder differently vary from intense that it can spread to other parts of the body, to moderate that lingers on the shoulder belt, but still hinder the function of the hinge, and can even lead to sleep disorders.
- The discussion over the negative effects of technology on our mental health has been happening for years now. We all know that the internet can be a dangerous place. With so much information at our fingertips, it's easy to get lost in a sea of websites, social media posts, and videos. For some people, this online overload can lead to cognitive disorders and other mental health issues. According to the study, the biggest five negative effects of technology on our lives include: Psychological issues (50%), Sleep problems (48%), Social issues (45%), Difficulty forming relationships in the real-world (42%),

Difficulty with focus (41%). The most important aspect that people notice are psychological problems. The most prevalent cognitive disorders induced by technology that the participants of the study recognized in themselves were: The compulsion to fill any momentary boredom with the use of a smartphone (47%), Having states of mechanical, routined, and repetitive internet behaviours (38%), Consuming tragic online news without emotional or psychological response or impact (34%), Spending time on their device when being with their loved ones and giving it more attention than to the people (32%). These problems mainly affect young people who spend more time online than older generations. (Beata Stefanowicz, September, 2022)

- On age category basis respondents who are in age range of 25-30 years, have high computer vision syndrome (75%). Among remaining 56.3% have shown carpal tunnel syndrome and musculoskeletal disorders respectively, while 26.5% are having stress and only 25.9% are facing all health disorders. The other respondents who are of age more than 30 years, majority (74.1%) reported all problems, 73.3% have shown stress, 43.8% have shown carpal tunnel syndrome and musculoskeletal disorders and only 25% have computer vision syndrome. (Abida et al., 2011)



- On occupational basis 35.2% employees indicated presence of all diseases. On individual basis of disorders 25% employees have shown computer vision syndrome, 18.8% have shown carpal tunnel syndrome and musculoskeletal disorder. Only 10% have shown stress. Among students, majority (31.5%) have shown all problems, 20% reported stress and 12.5% have indicated carpal tunnel syndrome and musculoskeletal disorders respectively. Respondents who were both employees as well as students have confirmed that among those 75% have computer vision syndrome, 70% have stress, 68% have carpal tunnel syndrome and musculoskeletal disorders and only 33.3% have all problems. (Abida et al., 2011)



- Noise-induced hearing loss may be suffered by people who habitually listen to music at high volume levels on headphones or earbuds. Such prolonged exposure to high-decibel sound can cause gradual and irreversible damage to inner ear structures.
- FOMO syndrome (Fear of Missing Out) is a psychological disorder characterized by anxiety and stress as the result of fearing that you are missing out on some important or exciting experience. The rapid rate of technological development and the availability of information on social media means that we are more aware than ever of what other people are buying or doing. Consequently, we are more susceptible than before to “gadget envy” and/or to the worry that, by not staying up to date on our Facebook or Twitter feeds, for example, we are going to miss out on some viral video, the latest tech fad, or the latest news about our friends or favourite celebrities. People with FOMO state that they always feel lonely when they are not spending time on social platforms, and they try to complete the love, compassion, information sharing and spreading which they lack in their relationships. (Mayank Gupta and Aditya Sharma, July 2021)
- Phantom vibration syndrome is a sign of cell phone dependency. It happens when we have the sensation that our cell phone is vibrating in our pocket, even though it actually isn't.
- Tendonitis is caused by habitually working with our arms and wrists in unnatural positions while using a keyboard, mouse, cell phone, or game console controller. Depending on the specific cause and area affected, sometimes it is referred to as “textinitis” or “Nintendonitis.”
- Play Station palmar hidradenitis is a gaming disease characterized by inflammation and red blotches on the palms of our hands after prolonged use of game console controllers, principally caused by holding the controller tightly for long periods of time and repeated button-pressing movements.
- Nomophobia (short for “no-mobile-phone phobia”) is the fear some of us experience of not having our cell phone with us, or of not being able to use it because of running out of battery life or not having a good signal. In extreme cases, it can even cause an anxiety attack. A study which was conducted in Turkey with 537 undergraduate students used the Turkish version of nomophobia scale developed by

Yildirim and Correra, 2016 and aimed at measuring the prevalence of nomophobia among undergraduate students for the first time. As a result of the study, 42.6% of undergraduate students showed nomophobia disease and stated that their biggest fear was being unable to communicate and reach information.” Further examination of the research data shows that female students displayed more nomophobic behavior compared to male students, and that age and smart phone usage history did not have any significant impact on nomophobia.

- Insomnia can be caused by using cell phones and tablets late at night, which is quite common; many people sleep with their cell phones at their side. Working into the evening face-to-face with an illuminated monitor can play havoc with our internal clock. Replace work with exciting stuff like video games after dark, and we have an even more potent recipe for a sleepless night. One study showed that playing a game involving shooting suppressed levels of melatonin, the hormone that's involved in regulating cycles of sleep and waking. In fact, spending the night hours on social media has its own name now: “vamping,” in reference to the most famous creatures of the night (not to be confused with other unrelated uses of the word).
- Cyberchondria is the digital version of hypochondria. It's the habit of searching the web obsessively for health care information, with the fear that you might have some rare disease you read about on some health-oriented website, regardless of the reliability of the information. This modern disease can increase anxiety in individuals and lead to financial problems due to attempts to find a diagnosis of an imaginary disease. According to Taylor et al; 2020, cyberchondria is a type of disease which leads to anxiety in individuals based on even well-mannered symptoms that cause excessive researching and misinterpretation of health information in virtual environment.
- Overuse or dependence on technology may have adverse psychological effects, including Isolation. Technologies, such as social media, are designed to bring people together, yet they may have the opposite effect in some cases. A 2017 study in young adults aged 19–32 years found that people with higher social media use were more than three times as likely to feel socially isolated than those who did not use social media as often.
- Obesity is another problem. There's a much more direct relationship between obesity and a digital lifestyle. It comes from spending too much time sitting on your rear.
- Cervical pain syndrome (CPS) refers to a range of disorders caused by changes in the cervical spine and soft tissue surrounding it, with pain as the predominant symptom. Neck pain is a common problem for a large portion of today's population. Factors contributing to this problem are the modern way of life, prolonged sitting and inadequate, fixed or artificial positions. The root of these problems is found in the mechanical disorders of the cervical spine, poor posture and quick movements of the body. The constant tiny movements needed to maneuver a mouse or type on a keyboard can irritate tendons; swelling can press on nerves. As little as a half hour a day of computer mouse use could put us at risk for pain in our shoulder, forearm, or hand. But repetitive stress injury, or RSI, can affect our whole body, not just the part we've overused, says Mary Barbe, PhD, a professor in the department of anatomy and cell biology at Temple University. Injured cells release substances called cytokines that travel through the bloodstream. “if you have enough of these circulating in your bloodstream, they can be toxic nerve cells and other cells,” Barbe tells WebMD.
- Using technology too close to bedtime may cause issues with sleep. This effect has to do with the fact that blue light, such as the light from cell phones, e-readers, and computers, stimulates the brain. Authors of a 2014 study found that this blue light is enough to disturb the body's natural circadian rhythm. This disturbance could make it harder to fall asleep or lead to a person feeling less alert the next day. (Tosini G, et. al; 2016). It's important to distinguish between interactive and passive technological devices. Passive devices are those which require little or no input from users. Examples

include listening to music, reading an e-book, or watching TV or a movie. With interactive devices, what is viewed on-screen changes with input from the user. For example, playing a video game is interactive, as is chatting on social media. Interactive activities are more likely to disrupt sleep than passive activities.

- Chen and colleagues in 2007, examined the effect of five computer mice made at different angles in 12 respondents employed in the business sector in Taiwan. They concluded that too frequent use of non-ergonomic computer mice causes extreme discomfort in the muscle and tendon system of the hand along with various manifest symptoms in the shoulder and forearm.
- Chatting on your cell phone makes you drive like you're drunk, says David Strayer, a professor of psychology at the University of Utah and an expert on driver distraction. Using a driving simulator, he put people with a blood alcohol level of .08 behind the wheel, and then tested them sober but using a cell phone a few days later. "The person on the cell phone was every bit as impaired," Strayer tells WebMD. You're four times more likely to have an accident with the phone glued to your ear. Hands-free phones and voice dialling don't seem to help. It's not so much fiddling with buttons that puts you at risk, but rather that the conversation itself engages parts of your brain that would be better focused on the road. Strayer says. "It's more of an impairment because the mind is not on the road than because the hands aren't on the wheel," he says. Because the person at the other end of the phone isn't aware of driving conditions, you get pulled into a deeper conversation than you would with someone beside you. If gabbing on the phone makes you four times more likely to have an accident, texting doubles your risk yet again, Strayer says. "Taking your mind off the road for even a second can be very hazardous," he says, yet reading and replying to a message tends to take a few seconds. Add to that the need to hold the device steady, and it's not surprising that you're eight times more likely to crash while texting.
- Your sleek, high-tech office may be a source of indoor air pollution. Some models of laser printers shoot out invisible particles into the air as they chug away. These ultra-fine particles can lodge deep in your lungs. Not every printer is a health hazard.

ADAPTATION

Technology has both beneficial and negative impacts. Many people use technology to further their development, while others use it to destroy the environment and society. It is WE who needs to understand that technology is an integral part of our lives and we cannot actually survive without it. By knowing this we also must understand that there are certain bad impacts of Technology, if we adapt to the changing needs and take certain precautions, we can overcome the problems and lead a better life with ease.

The American Academy of Paediatrics (February 2020) discourages media use by children younger than 2 and recommends children under 18 months old avoid screen time altogether, while 2–5-year-olds have no more than 1 hour a day of high-quality viewing with an adult.

- For Computer Vision Syndrome, we have to make sure the glasses or contact lens prescription is up to date and adequate for computer use. Occupational glasses may be needed for some people with the Computer Vision Syndrome. A single or bifocal lens, or tinted lens material, may help increase contrast perception and filter out glare and reflective light to reduce symptoms of eye strain.
- Screened devices are a common part of everyday activities. From using the self-checkout station at the grocery store to reading your favourite author's new book on a tablet, time spent using screened devices is more than just the TV or smartphone. While screens are a part of today's culture, there are health benefits related to reducing screen time, including improved physical health, decreased obesity and more time to play and explore. (Mayo Clinic Health System, April 2023). It's important to use break times to get in some physical activity. When the school day wraps up, have a plan to put away devices somewhere out of sight and engage kids in other ways.

- Eliminate background TV- If the TV is turned on - even if it's just in the background - it's likely to draw your child's attention. If you're not actively watching a show, turn it off. Taking regular breaks away from the screen may reduce the likelihood of eyestrain.
- Keep TVs, smartphones and computers out of the bedroom-Children who have electronics in their bedrooms watch more than children who don't have these in their bedrooms. Monitor your child's screen time and the websites he or she is visiting by keeping TVs and computers in a common area in your house.
- Don't eat in front of a screen-Allowing your child to eat or snack in front of electronic devices increases his or her screen time. The habit also encourages mindless munching, which can lead to weight gain.
- Have your child stretch or do yoga while watching a show. Challenge your family to see who can do the most jumping jacks during a commercial break. Choose video games that encourage physical activity.
- Finding ways to reduce social media use, such as setting time limits for social apps, may help reduce feelings of isolation in some people.
- The 20-20-20 rule for digital viewing- When using any form of digital screen for longer periods of time, the American Optometric Association recommend using the 20-20-20 rule. To use the rule, after every 20 minutes of screen time, take a 20-second break to look at something at least 20 feet away. Doing this may help reduce the strain on the eyes from staring at a screen for a continuous period. You could set a timer every 20 minutes to act as a reminder. Reduce overhead lighting to minimize screen glare. Increase text size on devices so you can read comfortably. Make sure you are blinking – when we stare at digital devices, we can blink less frequently, leading to dry eyes. If dry eyes are bothering you, using eye drops could help. Get regular eye check-ups. Poor eyesight contributes to eye strain. Regular check-ups will help ensure timely prescriptions when you need them.
- Correcting posture problems while using technology may lead to an overall improvement in posture and strength in the core, neck, and back. For example, if a person finds themselves sitting in the same position for hours at a time, such as sitting at a desk while working, regularly standing or stretching may help reduce strain on the body. Additionally, taking short breaks, such as walking around the office every hour, may also help keep the muscles loose and avoid tension and incorrect posture.
- To relieve back and neck pain, adjust your posture when using a device: Ensure proper sitting posture at the computer by ensuring that your desk, seat, and screen set-up is optimized – the UK's NHS has detailed guidance on achieving this. Instead of holding your phone in your lap, you can minimize neck problems by holding it out in front of you. Positioning the device so it is in front of your face with your head sitting squarely on your shoulders is helpful to your neck. Consider using a body-standing desk. These make staring straight at your computer screen possible and help you avoid the health dangers of sitting all day. If texting with your thumbs causes pain, you may need to use other fingers to text or use a stylus. Regular screen breaks – allowing you to walk around, stand up, or stretch – will help relieve muscle pain and stress.
- To avoid the potential impact of blue light on the brain, people can stop using electronic devices that emit blue light in the hour or two before bedtime. Gentle activities to wind down with instead, such as reading a book, doing gentle stretches, or taking a bath, are alternatives. Reading a book is more likely to relax you than scrolling through social media feeds. Dim the screen as much as possible for evening use. In many e-readers, you can also invert the screen color (i.e., white font on black background). Many devices now come with a 'night-time mode,' which is easier on the eye before bed. You could consider using a software program for PCs and laptops which decreases the amount of blue light in

computer screens – which affects melatonin levels – and increases orange tones instead. If you can, consider making your bedroom a screen-free zone. Establish a relaxing bedtime routine that doesn't involve screens, to help you relax before going to sleep.

CONCLUSION

To sum up, the development of science and technology changed human life, vision and conscious significantly. We can honestly admit that societies are not the same anymore comparatively to life periods without technologies. In the same time technologies also integrated the new expectations from society, new speed of life, new volume of data to be absorbed by human minds and processed. Does such rapid technological progress really make people happier and is integrated with environment naturally, or is it the only and unquestionable way to go for humanity? Even though the technologies have already conquered human lives significantly, behind the screens we are still humans who simply wish to be safe, happy and harmonized.

Technology is there in everyone's life. It affects you emotionally, physically, mentally, and environmentally. Technology makes the world a better place. It gives us the freedom to live in a better way and helps make our life easy. Technology helps in better communication, treatment of diseases, has helped reached space, and wherever you look around, it is there. It not only helps develop the present but also the future. Technology thus is an essential part of our lives and will also be the same, as it will be evolving day by day.

Technology is basically the sum of tools, applications and components developed for serving one's goals. Accepting and using technology without questioning is the most important evidence that it has an essential power of influence on the society. Developed technology establishes a connection between its users and their lives. This connection is classified as biological and technological. Based on this opinion of individuals, in the 21st century users of digital tools give much more value than other life priorities and promote them to the post of most important part of their lives. People begin to think that technology and digital devices make them more modern and popular which will make a difference between them and other people. But with all the good qualities and benefits that Technology has, we should always remember not to get addicted to it which would later affect our health.

With this literature survey, we understand that we must learn to adapt to technology because it is an important aspect of our lives. We must accept the benefits while minimizing the drawbacks because technology is undoubtedly a two-edged sword. In recent years, technology has grown at a rapid speed. Consider how common the internet is in everyday tasks. It is nearly impossible to execute a task without using technology. As a result, complete technical eradication is not feasible nor realistic.

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