

Technology : Impact on the Youth and Society

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ABSTRACT

As we become increasingly immersed in the virtual world, where humans no longer control machines but vice versa, technology is taking a toll on our human capabilities of adaptability, humor, and the need for communication. While technology is an integral part of our lives, data breaches, a lack of innovation and efficiency, and overdependence on technology have all been identified in recent years. This article investigates the negative implications of technology in terms of data storage, identity, security, the future of our hyper-connected youth, and the repercussions of data breaches, including their causes and results, as well as the overall psychological impact on individuals and society.

Key Words: hyper-connected, identity, implications virtual, innovation, psychological

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INTRODUCTION

Our world has become more accessible, and we have brought it closer to our fingertips. Through its applications, smartphone has taken over people's lives. The chatter that used to be heard on the outskirts of the village or over a coffee shop in the city has faded away. The interactions are no longer conversations. The applause on humor ceases to exist. Boys and girls between the ages of 6 and 18 are falling into the illusion of assuming that how you look on a Facebook profile or other social handle is more important than how you actually look. These fully commercially run sites that are easily accessible to adolescent children are capitalizing on their confidence. What do these apps take from you that trigger your loss if they are free? "When nothing is taken from you to get a service, you are the commodity," it is said in the business world. These sites offer you as a commodity as well. Ad revenue is real money.

You're surfing for shoes on Flipkart, but you're not concerned about why you're receiving shoe advertisements on every app you use. Humans no longer power these artificial intelligence-driven platforms. Programs that use all of the users' data

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have succeeded in creating a flawless virtual picture of us and use it to figure out our interests and other goals. From time to time, the news reports on how elections are managed on this platform or how many terrorist groups use it in secret. We'll go into how these outlets are influencing children's and everyone else's mindsets.

AADHAR WOES IN INDIA

The Aadhar project was launched by the Indian government in 2009 under the umbrella of UIDAI (Unique Identification Authority of India), with Nandan Nilekani, the co-founder of Infosys, as the first chairman. The project's main goal is to provide people of India with a 12-digit unique identification

number for granting government benefits to the poor and disadvantaged, who have to struggle to prove their identity at different levels in order to receive government benefits and access the public distribution system. About 1.2 billion people have already enrolled for the scheme by uploading biometric information such as fingerprints, iris scans, and facial data scans. Forbes and the Times of India also referred to the project as the world's largest database management system. By empowering every person in India, it promised a dignified life to the underprivileged and physically immobile.

However, this ambitious initiative is creating uproar, and Civil Society is challenging it in the Supreme Court on the grounds of Indian citizens' privacy, as well as other problems such as exclusion from benefits, denial of rights, mass surveillance, and enrollment difficulties. Various experts have revealed the Aadhar security flaws in terms of biometric authentication, centralized data storage, security problems during data processing, and challenges faced during data storage and maintenance (Pali et al. 2020). (Singh, P. 2019) investigates the legal debate between the government and Aadhar support groups, who argue that privacy is an elite concern and that the project's aim is to empower the poor, while lawyers challenging Aadhar argue that biometric technology flaws and data breach concerns exploit the poor and subject them to mass surveillance. Privacy is important to everyone, regardless of social status. The author describes the beneficiaries' difficulties as "anxiety of identification," which includes difficulties encountered during the Aadhar enrollment process, Aadhar linking to ration cards and other documents, and failed biometric fingerprints for updating or enrolling. Many citizens are robbed of the guarantee of distinctive identification due to physical conditions of fingerprints due to age, manual labor, or disability, reducing the likelihood of beneficiaries' consideration for welfare services. The author here emphasizes the plight of those whose fingerprints have been scanned and those who were not able to scan.

Aadhar Enabled Future Applications

Elections

When the Aadhar is linked to the election card, it can be used to make the election process easier for

voters by allowing them to vote via their smartphones apps, which will include all aspects of voting such as registration, address changes, and polling station information. The whole procedure must be safeguarded, and voters should not be eligible to vote again. The cloud will easily verify the vote Id linked to Aadhar, and new voters turning eighteen will also be eligible to vote based on their Aadhar results.

Healthcare

The Aadhar-powered Electronic Medical Record System can be a low-cost, high-efficiency patient management system that can be used to identify public healthcare patterns, collect statistical data, and schedule and prepare healthcare services based on massive amounts of information.

Education

Identifying economically disadvantaged members of society and providing them with free and compulsory primary education. Fake resumes can be detected, exam scams can be avoided, and educational qualifications can be checked using Aadhar data.

Electronic Toll

The Fastag system, which is connected to Aadhar, will ensure cashless payments and reduce traffic congestion, fuel waste, and ensure the development of a high-speed road network.

YOUTH OF THE FUTURE

Technology-savvy individuals will be the talk of the town in the future. People who can store, filter, synthesize, and interpret information from different sources will be critical in the future world. However, the negative effects of technological advancements can be predicted in the form of hyper-connected youth who have access to the internet twenty four hours a day, seven days a week, and a segment of multitaskers who seek immediate gratification and rely on tiny bits of knowledge, making quick judgments and lacking patience. This group of people would be spending the majority of their time and energy forwarding social messages and will appreciate being amused and diverted from people and information (Anderson & Rainie, 2012). Memories

will not be stored in the minds of future youth, but keywords will be stored as hyperlinks to memories. They would be less likely to conduct critical research and confront difficult problems, resulting in a stagnation of innovative capabilities. The social structure will change dramatically as a result of the division of labor based on decision-making and information-synthesis skills. People's standards of immediacy and their lack of patience with technology can be seen in its confiscation of our collective knowledge and capacity to perform critical research in exchange for a constant and continuous flow of enormous repositories of information. People's minds would be entirely reliant on technology, with obesity as a result. People who are accustomed to instant access to information will avoid taking longer routes to acquire information, analyze it, and draw conclusions in order to make better decisions. The tragedy of an entire society reliant on technology, making people useless when technology fails, is a futuristic fear that, sadly, is becoming a reality. People will lose their ability to focus on one task for a brief period of time, lacking a holistic perspective rather than using context and questioning to verify the truth, as potential contact will be direct, removing the need for idle communication. As individuals struggle with the concept of space, social and parental bonding may subside.

With the decrease in the value of productivity, the volume of productivity will increase. Machines will learn in the future, and human characteristics such as adaptability, imagination, and teamwork will become obsolete. Individuals are granted control on the internet based on their intelligence and moral stature (J.R.R Tolkien's, Rings of Power). The wise have the freedom to acquire more wisdom, while the idiots have the freedom to do idiotic things with them.

DATA GENERATION, BREACH AND SECURITY

Data Generation on the Internet

Organizations, individuals, and companies, according to (Schultz, 2019), produce enormous amounts of data that are uploaded on the internet every day. As of June 2019, there are 4.4 billion internet users,

highlighting an 83 percent rise in the number of internet users over the previous five years. The internet universe is rapidly expanding, with estimates indicating that social media has a large share of the market, with 300 million new users added per year. Since 2013, the number of Tweets per minute has risen by 58 percent, reaching over 474,000 in 2019. In 2019, 4,333.560 hours of YouTube videos were viewed and over 300 hours of YouTube videos were uploaded per minute. Facebook records 510,000 comments per minute, 293,000 status updates per minute, and over 136,000 images posted per minute, and the like button has been pressed 13 trillion times. The Radicati Group's Email Statistics Report 2019-2023 confirms this – In 2019, 293 billion emails were sent per day, with that number projected to rise by 4.2 percent per year to 347 billion by 2023.

Major Data Breaches in the 21st Century and their Causes

Even though data breaches are not uncommon, they have a major impact on companies, customers, and regulatory authorities. Victims are often targeted as a result of exploiting vulnerability in their systems, intentional hacker attacks, or when a company leaves its data compromised and exposed. Internal factors such as employees and ex-employees can contribute to the breach by stealing data from the company, exchanging administrative credentials, selling and extorting internal information. Due to financial strains, fear of losing a job, and monetary advantages on selling cashable type of information as reported by (Baker et al. 2011). The following is a list of the most important data breaches of the twenty-first century, grouped by the number of people who were impacted.

i. **Yahoo:** In 2013-14, over three billion user accounts were compromised. The attackers gained access to the users' names, dates of birth, phone numbers, emails, and addresses. The company's value was reduced by US \$ 350 million as a result of the breaches.

ii. **Sina Weibo:** This is China's version of Twitter. Over 538 million accounts' real names, email addresses, gender, location, and phone numbers were

reportedly leaked from the company's database and sold on the dark web. The Company however assured the users need not be worried, because data was never stored in plain text and passwords were not exposed.

iii. **Marriott International:** The company revealed that hackers had stolen the personal information of approximately 500 million customers, including their contact information, passport information, travel information, and other personal information. The attacks began in 2014 on networks that supported Starwood Hotels brands and continued after Marriott acquired Starwood in 2016. According to a New York Times report, the hack was ultimately traced to a Chinese intelligence group attempting to gather data on US civilians.

Apart from the major data breaches, there were various other breaches reported including Adult Friend Finder (October 2016, 412.2 million accounts affected), MySpace (2013, 360 million user accounts affected), NetEase (October 2015, 235 million account users affected), Zynga (September 2019, 218 million user accounts affected), LinkedIn (2012 and 2016, 165 million user accounts affected), Dubsmash (December 2018, 162 million accounts affected), Adobe (October 2013, 153 million user records affected), My Fitness Pal (February 2018, 150 million accounts affected), Equifax (July 2017, 147.9 million consumers affected), eBay (May 2014, 145 million user details affected), Canva (May 2019, 137 million accounts details affected), Heartland Payment Systems (March 2008, 134 million credit cards exposed).

Impact of a Data Breach

Data breach in an organization had a vital impact not only on the affected organization but also on the consumers and the regulatory agencies. Due to the ever increasing data on the internet the organizations are compelled to store their data on the specialized cloud servers for management and security concerns. In spite of sophisticated firewalls and evolving security mechanisms the hackers are getting past them making the organization more vulnerable to the data breach and to clients, employees and customers litigations. Despite the

security measures, many data breaches occur, some are reported while others are suppressed. The following are the consequences in the aftermath of a data breach reported in an organization and its impact on the consumers (Le and Zamora, 2018).

i. **Organizations:** The organization reporting data breach is subjected to financial losses, face the reputation damage, forced to pay the legal fees as the organization is exposed to legal policy and practices in several countries, levied regulatory fines and the loss of confidential organizational and consumer data. The longer it takes an organization to detect and contain a data breach, the higher the cost as reported by (Le and Zamora, 2018). The organizations carry out the activities as conducting forensics and inquiries to identify the root cause of the data breach, organize the incident response team, outreach in communication and public relations, disclosures to victims of data breaches and authorities, initiating call centre practices and advanced training, and preparing notice and other required documents. Organizations are compelled to spend money and resources on enforcing security controls, investing in preventative measures, conducting awareness campaigns, and conducting detective research.

ii. **Consumers:** Consumers are by far the worst victims of data breaches because they lose confidence in the company and have privacy issues. They are aware of the risks they pose in the virtual world and believe that nothing negative can happen to them. Consumer risk factors are measured by demographic characteristics such as gender and age. According to (Chakraborty et al. 2015), older adults over the age of 55 are less likely to take chances than younger adults and may choose to shop in physical stores or visit other websites rather than visiting a website where a data breach has already occurred. Due to a lack of understanding, Milne (2003) found that consumers do not check their credit reports or take preventative steps. (Le and Zamora, 2018) focused on the long-term effect of a data breach on consumers' daily lives, citing financial damages and emotional distress as examples. They could lose business as a result of the organization's refusal to approve safety measures to protect their confidential information. When a consumer's identity is stolen, his or her ability

to obtain a credit card is hindered, and obtaining loans from a bank becomes a difficult challenge when he or she is unable to prove his or her identity, resulting in financial difficulty and resentment. The customer is in a huge emotional bind because he fears a repeat of the incident, as well as the risk of private information being leaked, resulting in psychological stress and disorders.

Organizations all over the world are investing in more safe IT technologies in order to reduce the risk of a data breach. On a global scale, improvements are being made to cover up security flaws, and lessons from previous breaches have been learned. Organizations are partnering with banks to amend banking regulations for credit/debit cards by introducing Chip and PIN technology, which makes it more difficult for hackers to tamper with or clone payment cards. All these refined security measures will be effective in preventing the potential data leaks.

PSYCHOLOGICAL EFFECTS OF TECHNOLOGY

Technology is a two-edged sword; whether it is used for positive or destructive purposes is a matter of personal choice. Modern society seeks solace in technology by exploring various websites, social networking applications, and Internet of Things (IoT) programs. Every new technology comes with its own set of features and ease of use. Individuals can choose to be active on social media by chatting, posting, enjoying, and sharing content or passive by lurking and reading what others have to say.

Educators and parents may be unaware of the software that their children and teenagers use on a regular basis, as well as the dangers that they pose. Emails, photos, and web calls that vanish or do not appear in the device's call or text message logs are examples of cyber bullying concealed in apps and websites. Adult or harmful content is easy to search, view, and connect with thanks to websites and apps. As a result of their privacy and location settings, they may be more vulnerable to stalking, cyber bullying, exposure to adult content, and other attacks.

When technology is used excessively and obsessively, it becomes addictive. Addiction to

technology can be crippling on a physical, financial, and cultural level. Loneliness, depression, and intense anxiety are all symptoms of technology addiction. Adolescents who are stressed are more likely to become addicted. Technology addiction is similar to alcohol and drug addiction in that it produces endorphins and dopamine, as well as disrupting biological and hormonal processes.

When teens are isolated from their computers or denied access to the internet, they experience withdrawal symptoms such as agitation, restlessness, and irritation. Individuals display symptoms such as lying to family on how much time they spend on the computer, poor hygiene, eating disorders, and a loss of interest in previously enjoyed offline hobbies. Owing to social stigma and communal pressure, victims avoid seeking treatment and attempt to self-medicate, exposing themselves to negative emotions such as shame, hopelessness, and anxiety. According to research, children and adolescents use technology to combat loneliness and alienation as they grow up in a competitive world. Continuous exposure to technology and addiction to electronics, such as video games, contributes to permanent academic failure because people are unable to concentrate and focus on a single task.

CONCLUSION

With the plethora of technologies and applications available on our Smartphones, we are exposed to technology to an extent where we tend to live in virtual world rather than reality. Technology powered by artificial intelligence learns from humans and render us useless in various areas. Social networking websites consume our productive hours leaving us dependent and addictive to technology.

The technology developed for providing people with a unique Identification to avail government benefits and schemes in the form of Aadhar project is subjected to legal challenge in Supreme Court on the grounds of violations of fundamental rights bestowed upon us by the constitution. The initiative has the potential to achieve its goals and objectives provided the grass root implementation is monitored and the issues as uncertainty over one's

identity due to falsified bio-metrics, denial of rations to poor and elderly people on the ground of bio-metrics mismatch, compromised dignity and the physical and mental agony caused to the people are resolved. The security issues as easy access to Aadhar database, financial frauds committed using bio-metrics, only authorized and authenticated personnel having access to the database, publishing of Aadhar data on the government should be tackled.

The future youth need not be dependent but should be able to control the technology retaining his human abilities while harnessing technology for maximum efficiency. Technology might have psychological impact on the individuals and as a society, but we should be able to prevent ourselves from completely immersing in the virtual world retaining consciousness and overcoming the hurdles not only as an individual but as a society.

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