"Expanding Information Technology: A Curse or Blessing"

Outline

1- Introduction

Thesis statement:

Expansion in information technology has revolutionized the modern world through its significant advantages in communication, education, health and economic sector; however, it has created some challenges in data protection, employment and mental health issues, which need to be regulated at individual, community and national level.

2- How Is Expanding Information Technology A Blessing?

2a- Enhanced communication and connectivity

(A study published in the Journal of Computer-Mediated Communication: Facebook, Twitter, LinkedIn improved social interactions)

2b- Improvement in education accessibility
(Coursera and edX platforms)

2c- Advancements in healthcare
(The Digital Doctor: Hope, Hype and Harm at the Dawn of Medicine's Computer Age by Robert Wachter: use of telemedicines and electronic health records etc)

2d- Growth in economy
(Mckinsey Global Institute Report: accounts 22 per cent of Global GDP)

2e- Increased efficiency and productivity
(Amazon's use of robotics)

2f- New jobs creation
(US Bureau of Labor Statistics Report: 11 per cent jobs creation till 2029)

3- How Is Expanding Information Technology A Curse?

3a- Privacy concerns and data security
(The Facebook-Cambridge Analytica Scandal in 2018)

3b- Displacement in jobs
(World Economic Forum 2020 report: 85 million jobs displacement by 2025)

3c- Digital addiction and mental health issues

    (American Psychological Association Report)

3d- Electronic-waste disposal in environment

    (Global E-waste Monitor 2024 Report)

3e- Reduced interpersonal skills

4- How To Curb The Drawbacks Of Information Technology?

4a- Monitor the individual use of social media apps through tracking system

4b- Launch digital literacy programs

    (Case study: McMillen Health's Digital Citizenship Programs)

4c- Strengthen cybersecurity laws

5- Conclusion

"Expanding Information Technology: A Curse OR Blessing"

Human history is full of technological advances in all facets of life. Since the advent of the First Industrial Revolution, the substantial development in technology has transformed the livelihoods of human beings. It has become an inextricable part of almost every aspect of life. However, there is a discourse around the unbridled expansion in information technology. Some people view it as a blessing while others as a curse. Although advancement in information technology presents numerous hurdles in some sectors, the potential positive impacts of IT surpass its challenges. It needs to be explored how information technology has more blessings than curses in almost every aspect of life. Therefore, expansion in information technology has revolutionized the modern world through its significant

advantages in communication, education, health and economic sector; however, it has created some challenges in data protection, employment and mental health issues, which need to be regulated at individual, community and national level. As Yuval Noah Harari, a renowned Historian and Author, aptly said:

"Technology is not deterministic.
You can use the same technology
to create very different kinds
of societies."

Starting with, information technology has significant advantages in increasing communication and connectiving among people. Almost everyone has access to information tools such as electronic media, print media and social media. It connected people worlduide. Consequently, it brought unity in diversity. A study published in the Journal of Computer-mediated Communication highlights that

Facebook, Twitter, LinkedIn improved social interactions. It helps people to discuss their issues with each other and find solution of their problems. Hence, expanding information technology is a blessing in many ways. Particularly, in connecting people of different cultures, background, religions and ethnicities.

Moreover, expanding information tools have substantially increased accessibility of masses to education platforms. Particularly, people living in far-flung areas can have the opportunity of availing free education platforms online. For instance, coursera and edx provide free education opportunities. These are prominent platforms offering courses from top universities to millions of students worldwide. These platforms provide a wide range of courses from computer science to

humanities, enabling learners to acquire new skills and knowledge at their own pace. Hence, both platforms are instrumental in democratizing education. Therefore, it provides evidence that information technology has provided many advantages in education sector.

Furthermore, information technology has revolutionized the healthcare sector by improving healthcare facilities. The precision of machine learning and artificial intelligence assisted doctors in diagnosing diseases effectively and efficiently. It reduced the time span and increased the outcomes. In his seminal work, The Digital Doctor: Hope, Hype and Harm at the Dawn of Medicine's Computer Age, Robert Wachter explain the use of telemedicines and electronic health records (EHRs) in increasing efficienty in medical field.

Now, EHRs protect data of patients for long time. Moreover, telemedicine helped in improving diagnostic accuracy and enhanced patient outcomes. So, it gives clear proof of revolutionary impact of technology in healthcare sector.

Additionally, economic growth is another blessing owing to expanding information technology. The artificial intelligent machines have reduced time duration and increased productivity. Hence, it boosted up economic growth and efficiency. According to Mckinsey Global Institute 2018 Report, digital economy accounted for 22 per cent of global GDP. It underscores the huge economic impact of information technology. It happened due to efficient nature of artificial machines. It increased demand for IT professionals across various sectors, including

cybersecurity, software development, and data analysis. Hence, IT has largely contributed in economic development.

Adding on the above factors, expanding information technology has staggering positive impact on increasing efficiency and productivity of businesses. Those companies, which are working online, have taken great advantage of technology. They have streamlined information technology in their data processing. For instance, Amazon's use of Artificial Intelligence and robotics in its warehouses has significantly improved order fulfillment speed and accuracy. The company's advanced logistics network and sophisticated algorithms enable it to process and deliver millions of orders daily. Hence, information technology has set new standards for e-commerce

efficiency. Therefore, IT has transformed manufacturing process in industries and increased productivity.

In addition to that, Information technology provided opportunity for new jobs. Although various manual jobs are at stake, IT sector has provided avenues for new jobs as well. Those people who learn skill of IT and train themselves can upgrade their jobs in IT. According to the US Bureau of Labour Statistics, employment in computer and IT occupations is projected to grow by 11 per cent from 2019 to 2029. It reflects much faster growth than the average for all occupation. People only need to upgrade them according to the demands of IT. In this way, they can harness the potential of these technologies. It proves that new jobs will be created by IT.

The foregoing paragraphs have expounded the blessings of expanding information technology. On the flip side IT has many curses as well in various ways. It is unfair to not shed light on them. Let us discuss them in detail.

Firstly, the pervasive nature of information technology has aggravated privacy issues of people worldwide. The algorithms have accessiblity to the private data of each person. Some people use them for their nefarious purposes and breach data of other people. Its stark example found in the facebook - Cambridge Analytica Scandal in 2018, where the personal data of million of people was harvested without their consent. It highlights the potential misuse of data by some companies. Similarly, identity theft, cyber attacks and data breaches

provide other example. Hence, IT is a curse in case of privacy concerns of people.

Secondly, IT has displaced various jobs, particulary manual works. Those jobs such as data entry, data analysis, customer service-representative, market research analysts and graphic designers, are replaced by AI, automation and machine learning. World Economic Forum 2020 Report predicts that by 2025, automation will displace 85 million jobs, highlighting the displacement effect. This report emphasizes the need for reskilling and upskilling programs to prepare workers for the jobs of the future. the belongs to Artificiall intelligence, which inflicts threat to jobs of various sectors. Therefore, job displacement is a disadvantage of expanding IT.

Thirdly, with increasing use of information technologies, people get addicted to it which led to mental health issues. The rising cases of mental health diseases are linked to the addiction of social media apps such as facebook, Instagram and Twitter. These apps are designed to grab the attention of uses. Therefore, they uselessly scroll on these apps, sometimes not even knowing they are doing it. The American Psychological Association (APA) reported that heavy social media use is associated with higher levels of anxiety and depression in teenagers. The report also highlights the impact of social media on self-esteem, body image and social comparison. It, ultimately, impacts mental health of uses. Hence, it provides clear evidence that social media apps have increased mental health issues.

Fourthly, environmental pollution issues have rised owing to Electronic-waste disposal in environment, which is one of the disadvantages of expanding technologies. For the manufacturing of automatic machines, various electronic materials are used, which are harmful for environment. The Global E-waste Monitor, 2024 Report highlights that global E-waste generation has significantly increased from 34 billion Kilograms in 2010 to 62 billion kilograms in 2022. This trend is projected to continue, reaching 82 billion kilograms by 2030. It underscores the serious implication of information technology on increasing environmental pollution. Hence, IT has contributed in E-waste generation.

Fifthly, increasing use of technological apps has substantially

reduced interpersonal skills of communication. Most of the times, people are buy wing these apps. Consequently, it easts adverse impacts on face-to-face communication. Moreover, it lead to social Isolation. A study by the University of Pennsylvania 2018 found that limiting social media use to 30 minutes per day reduced feelings of lonliness and depression. It Suggests that reducing screen time can improve mental health and promote more fulfilling social interactions. So, information technology is a curse in reducing social interaction.

To regulate the expanding nature of information technology, Several measures need to take. Firstly, individual use of social media apps need to be monitored It can be done through tracking system of social media apps.

Different tracking apps are available in mobile phones, which regulate the use of these application. For example, Digital Wellbeing and Screen Time (iOS) track time spend on social media. By using these apps, one can limit spending much time on these applications.

Moreover, launch digital literacy programs and integrate them into education system. It will make people aware about the positive and negative impacts of using these technologies. One program such as mcMillen Health's Digital Citizenship programs work to integrate internet usage skills and safety. to spread public awareness. Such programs can be helpful in regulating the expanding use of information technology. In this way, it will control the negative impacts of IT on people.

Furthermore, by strengthening cyber security laws, the curses of IT can be regulated. It requires enhancing guardrails on using these technologies. It requires collaborative effort of government, stakeholders and society. In this way, privacy of people can be safeguarded. The case study of European Union's General Data Protection Regulation (GDPR) is the best example. It establishes strict rules for data protection and privacy, including data breach notifications and data subject rights. Similar laws can overhaul usage of IT.

In conclusion, expanding information technology has transformed the lives of people. It provides significant advantages and some challenges. However, whether it is a blessing or a curse depends on how it is utilized. Undeniably,

IT has revolutionized communication, education, healthcare and economic sector. On the flip side, it presents huge challenges in data breacher, jobs displacement and environmental issues. By monitoring the use of these technologies, people can regulate the extravagant use of information technology.

Therefore, harnessing the potential use of technology and regulating it's adverse impacts is the need of the hour. Indeed, it is frought with formidable challenges. However, immediate actions in the right direction can help traverse this difficult path. It is a journey of thousand miles, which can be covered through concerted efforts of all stakeholders. As melvin Kranzberg, an American Historian, rightly said:

"Technology is neither good nor bad; nor it is neutral"