

# ESSAY #6

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## Expanding Information Technology: Pros and Cons

### Outline:-

#### 1: Introduction

T.S.:- Information Technology is expanding by leaps and bounds. It has many advantages and brings great gifts to mankind. However, on the flipside, it does have certain disadvantages too, which can be overcome by taking certain affirmative measures in the right direction.

#### 2: Manifestations of expanding Information Technology in the current scenario

#### 3: Pros of Expanding Information Technology in the contemporary world:

(a) Increased access to information due to new services and

applications

- (b) Improved communication system to meet previously unmet society's communication needs.
- (c) Improves education system by facilitating teachers and students - and changes in pedagogy and research techniques.
- (d) Improves healthcare system by making patient's care safer and more reliable than before.
- (e) E-commerce enables economic prosperity and ensures the access to new markets by fostering economic interdependence.
- (f) Improves safety and security by integrated IT management systems and alarms.

4: Cons of information Technology in the contemporary changing world:

- (a) can compromise national security in a globalized world through misinformation campaigns.

(b) Increases the level of unemployment leading to a lot of crises amongst the public.

(c) Threats of cybercrime and cyberbullying keep haunting societies in numerous ways.

(d) Leads to physical and mental health problems causing social isolation.

(e) Causes distractions amongst youth by prevalence of unreliable, immoral and sub-standard material on websites.

(f) Moving faster than laws and regulations can catch up with its advancements - not available to all and sundry.

**5: Suggestive measures to reap maximum benefits of expanding Information Technology and check its disadvantages:**

(a) To develop and enforce policies on electronic devices' safe use in order to overcome cyber threats.

(b) Investing in education and training to impart caution and awareness of the potential dangers of IT.

(c) Creation of an international anti-cybercrime body to resolve security issues i.e. hybrid warfare threats

(d) Access to information technology by creating equitable, affordable and robust ICT networks be ensured.

## 6: Conclusion

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## Essay:

Information Technology first appeared in English in the 17<sup>th</sup> century, where it was used to mean a discussion of the applied arts only. Gradually these arts themselves came to be the object of attention. By the early 20<sup>th</sup> century, the term embraced a growing range of means, processes and ideas in addition to tools and machines. By the mid-century and early 21<sup>st</sup> century, technology came to be analyzed as the means by which man seeks to change and manipulate his environment. Information Technology is still expanding by leaps and bounds. It has many advantages and brings great gifts to mankind. However on the flipside, it does have certain disadvantages too, which can be overcome by taking certain affirmative measures in the right direction. It has brought with itself an increased access to information due to new services and applications along with

improved communication system. At the same time good changes in pedagogy and research techniques accompanied by improved healthcare system are amongst myriad of benefits of expanding information technology.

Additionally, improvement in safety and security by integrated technological management systems and fostering economic interdependence have performed well in overcoming a nation's security and economic concerns in the contemporary globalized world.

However, on the flipside, expanding information technology has increased the level of unemployment leading to a lot of crises amongst the public. In the same vein, threats of cybercrime and cyberbullying keep haunting societies and threaten national security. Information technology is not at the disposal of all and sundry and leads to mental and physical fatigue and disorientations amongst the

YOUTH. All these need to be overcome to reap maximum benefits of information technology. What follows is an exposition of the pros of information technology in the contemporary world. It also analyses its cons and discusses the pragmatic measures to reap maximum benefits of expanding information technology, in the end.

Information technology involves the application of computers and any type of telecommunications that store, retrieve, study, transmit, manipulate data and send information. In the contemporary world, IT and its benefits can be witnessed in almost every sphere of life. It helps to build and grow the commerce and business sector and generates maximum output. It has helped medical science in manifold ways. Even the education sector has been dramatically changed with the arrival of information technology. From online education to

increase in the face of research and development, all is possible due to expanding IT. It opens the doors for traders and common people to do online purchasing. Moreover, online transactions are now safer than in earlier times. With improvement in information technology, globalization has increased. Thus, it can be safely said that expanding IT and its benefits can be seen in every sphere of life. It has reduced the barriers and met the previously unmet challenges confronted by the world.

Expanding information technology has led to an increased access to information due to new services and applications. IT has made it easier for people to access information. With the internet, people can search for and find almost any information they need within seconds. This has made it possible for people



to learn anything they are interested in and has greatly increased the amount of information that is available on such gadgets. Multiple softwares and search engines are abundantly utilized to foster research and development. Such scholarly search engines include Google Scholar, Microsoft Academic, Semantic Scholar, Google Books, etc., allow web users to browse information, updated and authentic, to acquaint themselves with knowledge and filter through topics such as data science, programming language and more. Thus, expanding IT has benefited the world with easy access to information which was not the case before.

Expanding information  
Technology <sup>has</sup> not only helped in getting information, but also improved the communication system to meet <sup>the</sup> <sup>growing</sup> <sup>needs</sup> of <sup>modern</sup> <sup>society's</sup> communication

needs. It has brought a revolutionary change in communication system. It has made communication faster and easier, allowing people to connect with each other instantly across long distances by social websites and gadgets. With the advent of email, for instance, one can connect with others and share important information with them. Other such tools include social media, video conferencing, online learning, etc., are all helping a great deal in making communication easy and fast. This has made it easier for people to stay connected with each other and has greatly improved the efficiency of communication.

In the same vein, expanding scope of information technology ensures better education system by facilitating teachers and students. It has brought good changes.

in pedagogy and research techniques. Using technology in education expands the possibilities for pupils' overall growth. In addition, it makes learning more interesting and enjoyable. Computers are mainly used to improve the learning system. Online learning and remote training are among new education forms. Now-a-days, most of the institutions are persuaded to place their teaching materials online so that the students can access them outside of regular lectures and tutorials. Udemy, one of the most popular online learning platforms, has more than 20,000 experts, with about 12 million students taking a course. It shows that expanding IT has greatly improved education system across the world.

Not only education, information technology has also improved health care system by making

patient's case. Safer and more reliable than before. Through electronic health records and Telemedicine, it has become easier for healthcare providers to access and share patient's information, which has improved the quality of care. Moreover, IT has also made it possible for people to access healthcare services remotely, which has increased the accessibility of healthcare. The future of healthcare is continuously shaped by new emerging technology. According to a survey conducted by Robert Wood Johnson Foundation, the use of IT enables doctors to identify medical errors and reduce the time it takes to document patient case. Therefore, IT has benefited healthcare system in an unprecedented manner.

Furthermore, e-commerce enables economic prosperity and ensures the access to new

markets by fostering economic interdependence.

E-commerce refers to business transactions that occur online. It is a more economic way of doing business than classic and expensive ways of business in vogue previously.

E-commerce sites could be easily approached at any time of the day. Furthermore, it is cost-effective and flexible way of doing business.

Opening a brick and mortar store takes time; an e-commerce website, on the other hand, can be up and running in just a few days. According to a report of World Bank, in 2020, e-commerce sales reached \$ 861.12 billion in the USA alone.

That presents a huge opportunity for e-commerce businesses. Therefore, e-commerce helps businesses flourish and ensures economic prosperity of a country.

In the similar manner, expanding information technology

improves safety and security by integrated IT management systems and alarms. With the use of surveillance cameras, security systems and emergency notification systems, it is now possible for people to monitor and protect their homes and communities more effectively. Technology is now rapidly becoming integral to security. New devices, automation, custom software, and robot drone technology is constantly being developed, improved upon, and employed to help security guards perform routine tasks. For instance, security service companies can also track the locations by the use of GPS and geo-fencing. Security robots being used by the USA and China are also good examples of new technology that can improve security. Therefore, it can be said that the ever-expanding IT has improved security systems around the world.

However, on the flipside,

expanding information technology can compromise the national security in a globalised world through misinformation campaigns. Expansion of IT has made it easier for misinformation to spread. With the proliferation of fake news and the ease with which information can be shared online, it is often difficult for the people to determine what is true and what is not.

This can lead to confusion and chaos. Misinformation can be used by the propagandists against the state and can result in hybrid warfare.

Pakistan, amongst other underdeveloped countries, faces a number of threats from internal and external forces due to misinformation campaigns projected through technological gadgets.

Hence, it is crystal clear that IT can compromise a nation's security.

Further, expansion in information technology increases

The level of unemployment leading to a lot of cries amongst the public. The rapid pace of technological change has led to job displacement as automation and artificial intelligence has become more prevalent. In the contemporary modern era, machines and software are able to perform tasks more efficiently and quickly along with much reliability and accuracy. It results in less demand for human labor and leads to job loss and unemployment. According to a report of World Economic Forum, worldwide, technological changes could easily lead to the loss of 5-10 million jobs each year. This is alarming and judged from this angle, expanding IT does lead to increase in the face of unemployment worldwide.

In the same vein, instead of cybercrime and cyberbullying



Keep haunting societies in numerous ways. Cybercrime is the use of technology to commit crimes such as fraud, identity theft and data breaches. While cyberbullying is the use of technology to harass, threaten or intimidate others. Both, cyberbullying and cybercrime, have serious consequences for individual and state's security. Cybercriminals can use a variety of tactics to steal information, including scams, malware and ransomware. According to Cybersec Defense Report, 2022, Colombia was the hardest-hit country by cyberattacks in 2022, with 93.9% of all surveyed companies being compromised at least once that year. It clearly paints a dark picture of the threats of expanding information technology and its repercussions.

To add, expansion of information technology leads to physical and mental health problems causing social isolation. The constant use

Q) IT negatively impacts health. Excessive screen time can lead to eye strain, neck and back pain, mental fatigue and isolation. It can contribute to a sedentary lifestyle, which can increase the risk of obesity and other health problems. Besides, it can also lead to social isolation and disconnection from the physical world. As people spend more and more time on their devices, they may become less likely to engage in face-to-face interaction with others. This can cause a decline in social connections. Researchers found that college students around the world spend nearly nine hours daily on their phones. due to "Gaming Addiction Disorder" being recently included in International Classification of Diseases. This brings home the true picture of how IT can affect health of an individual.

In the same vein, expanding information technology can cause.

distractions amongst <sup>the</sup> youth by prevalence of unreliable, immoral and sub-standard material on websites. The unethical use of information technology and social websites can cause privacy issues and pose threats to personal well-being of youth. It results in privacy and security breaches for the most vulnerable group of users i.e. children. Reports in 2021 reveal that persons between the ages eight and eleven years spend an average 13.5 hours weekly online and 48% of this <sup>age</sup> group are actively engaged on social media. They are more prone to become victims of unreliable and immoral contents being prevalent on social websites and cause distraction amongst them.

In addition to that, the pace of expansion of information technology is faster than laws and

regulations can catch up with its advancements. It is not available to all and sundry. Inaccessibility of technology is huge issue for the marginalised strata of most of the underdeveloped countries. There is no equity of access in rural and remote areas and access to inclusive technologies for people with disabilities. Women are, too, barred to reap benefits of expanding IT. Moreover, many countries are lacking in laws and regulations to cope with the above-than-normal expansion of IT and its drastic repercussions. There is not any public policy framework that should support the development of IT that meets high standards of speed, reliability and universality.

Notwithstanding its negative effects, expanding information technology can be used to reap maximum benefits out of it by checking

Its negative repercussions. It can be done, firstly, by developing and enforcing policies on electronic devices' safe use in order to overcome cyber threats. There is an increasing concern at the use and expansion of information technology in a globalised society. It is used by terrorists and their supporters, and used as propaganda campaigns against a state. It is, therefore, mandatory to form policies on technology's safe usage. For instance, the United Nations' Cybersecurity and New Technologies Programme aims to enhance capacities of member states to regulate and mitigate the misuse of IT. In this regard, Korean policies of cybersecurity can also be imitated by the nations. Thus, safe use of technology is mandatory to overcome its drastic repercussions.

Similarly, investing in education and training to

Impart caution and awareness of the potential dangers of IT to the masses, is all the way more imperative than resorting to any other tangible measures. Young generations make extensive use of technological gadgets with plethora of security risks associated with such devices. Owing to the proliferation of smart devices and escalating dependency on them, there is a dire need to invest in educating the masses by awareness campaigns to help reduce the potential risks of expansion technology. More importantly, users should be informed about how to protect themselves. In this regard, Japanese model could be followed wherein high technological companies are persuaded to impart awareness about the dangers of the gadgets and websites they create. Therefore, the more one is cautious of dangers of IT, the more one can reap maximum benefits out of it.

In the same vein, creation of an international anti-cybercrime body to resolve security issues i.e. hybrid warfare threats, can help reduce the drastic repercussions of expanding IT. Perpetrators of cybercrime and their victims can be located in different regions provided they are continuously checked by any anti-cybercrime body. In this regard a global programme on cybercrime namely United Nations Office on Drugs and Crime provides focused technical assistance for capacity building, prevention, awareness raising, international cooperation and analysis on the phenomenon of cybercrime, principally in developing countries. Other such international bodies need to be constituted to overcome the threats of cybercrimes and cyberbullying.

Lastly, access to information

Technology by creating equitable, affordable and robust ICT networks be ensured. Although efforts have been made to close this digital divide, there remain substantial inequalities in access to and use of ICT, especially in the developing countries. The ability to access and use technology has become essential to full participation of students, employees, public servants, lawyers, engineers, etc. For this, accessible web pages, multimedia, and instructional courseware along with accessible telecommunications and office equipment, must be given priority to ensure every strata of the society has equal opportunities to reap benefits of the expanding information technology.

That being said, information technology is continuously expanding. It has multiple advantages, and at the same time, certain



disadvantages which need to be overcome by taking affirmative measures in due letter and spirit. It has led to an increase in the access of information, greatly improved communication and made many tasks and processes more efficient. It is, however, important to use technology responsibly to reap maximum benefits out of it by reducing its drawbacks. Seen through this prism, its drawbacks could be overcome by developing and enforcing policies of electronic devices safe use to check cyber threats, investing in education, creation of an international anti-cybercrime body to resolve security issues and ensuring equitable access to information technology by all and sundry. Expansion of IT should be a blessing rather than a curse by addressing its negative effects. It can go a long way if used appropriately.

## PRECIS #6

Title: Repudiation of Philosophy  
by Science

An interest in stubborn and irreducible facts remained neglected in Middle Ages and antiquity. Curiosity about facts became common among intelligent people after Renaissance. Pursuit of science led to a blend of general and particular interests in science; in Middle Age, it was more tilted towards the general interests; in Renaissance, the tilt was into particular occurrences. This interest operated upon new minds and made Kepler and Galileo possible. That said, science has always remained clean and anti-nationalistic in search of its reason and meaning. It repudiated philosophy and never ceased for its criticism by Hume.

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