5. Impact of Information and Communication Technology for Society

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Abstract:

Many ICT gadgets are already commonplace in our daily lives, allowing us to use them anywhere and at any time. Using these tools reduces the physical and mental work load on humans. That's why new modes have been so beneficial to us on a day-to-day basis. ICT has had a significant impact on our daily lives, including the transition from letter to email, market shopping to on-line shopping, classroom learning to e-learning, and etc. There are many ways in which ICT has impacted our lives, including at home and at work, as well as in education, health care, commerce, banking, and Employment.

Keywords:

Information & Communication Technology (ICT), Impacts of ICT, Society, Daily Life.

5.1 Introduction:

The term "information technology" is used in the first definition. The technology used to store, manipulate, disseminate, or produce data is known as information technology (IT). For the purposes of this definition, it makes no difference what kind of data it is. [1] The technology refers to any mechanism that can process this information. As is well-known, performing any type of math by hand is time-consuming and laborious. To save time and effort, however, we may build efficient programs written in many languages so that they can be evaluated exhaustively for every function they are anticipated to perform prior to usage. If the programs are created with an eye toward the precise

requirements that are sought after and developed correctly to address the difficulties without problems, human error is also less likely to occur. These are the underlying principles of information technology. From elementary addition and subtraction to flying a plane on autopilot, and directing a spaceship from the ground on Mars, its applications in our daily lives are extensive. Electronic databases today have the capacity to hold enormous amounts of data that can be accessed quickly and easily over the internet for information on virtually any topic.

Information facilities are rapidly evolving in order to keep pace with changes and dynamics in the business environment and make the best decisions possible based on the availability and quality of information. This can be seen around the world today.

This demonstrates the increasing importance of information systems and their ability to meet the information requirements of businesses. In light of this, it is imperative that these systems be developed and improved upon. As a result of the sophisticated technology that has made it easier and cheaper to gain access to data, one of these systems' defining characteristics is their ability to function as intended.

Because of advances in technology, the telecommunications industry has seen a major shift in a short period. When you think about today's economy, it's all about information and its distribution methods being as fast and cheap as possible in order to keep up with demand. Companies are now faced with a new challenge: acquiring information and communication technology.

This is because of the rapid growth and contribution of this industry to virtually every sector. This is especially true given the widespread use of satellite, mobile phone, and Internet technology.

It is impossible to deny that information technology has had a profound impact on human life during the past century. In fact, information and communication technology has just been utilized in many facets of life, far from being an effervescent phenomena or a transitory trend. This policy, which makes work easier for the corporation and its employees, has penetrated every domain.

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ICT has had a positive and a detrimental impact on our lives in this current day. Some of the problems that arise as a result of the widespread adoption of ICT infrastructure. Included here are:

- a. Effects on the Workforce
- b. Automated Manufacturing
- c. Workers' health concerns
- d. Effects of Culture
- e. Breakthrough in ICT

A. Effects On the Workforce:

Workplace computers have led in the creation of new jobs, the replacement of individuals who are computer-illiterate, and the displacement of positions.

a. The Creation of Jobs:

ICT has created new career prospects that were previously unimaginable. Operators of computers, programmers, network administrators, and specialists in ICT are some of the new job titles.

b. Replacement for A Job:

Workers who are computer illiterate are replaced by those who are computer literate.

c. Displacement of A Job:

Instead of losing their employment, people are transferred to a new location or department.

B. Automated Manufacturing:

Automatic process automation is used to cut costs and enhance production in industrial businesses, such as robots controlled by a computer.

C. Workers' Health Concerns:

Repetitive strain injuries, eyestrain, headache, electromagnetic emissions, and environmental difficulties are some of the consequences for human health that might result from these exposures.

D. Effects of Culture:

Our moral and cultural values have been challenged by the rise of ICT. ICT has impacted the way we talk, harmed our privacy, human rights and integrity e.g.

- Use of internet
- Hacking, eavesdropping, and other forms of computer-related crime.
- Computers can be used to create fake certificates, passports, and other official papers.
- Has been used as a complaint platform against components of the society drug misuse.

5.2 The Impact of Information Technology on Our Daily Routines:

5.2.1 Consequences for Education:

As a result of technological advancements, education has become a more efficient and successful process. Students' mental health has improved as a result. Tablets and computers, which have mostly replaced books in schools, have simplified this process.

In addition, e-learning systems have emerged that allow students to learn from the comfort of their own home. People who are not in school or have difficulty keeping up with their teachers in class may find that these platforms are a good substitute.

These platforms allow students to review lessons at any time with clearer explanations, which improves the educational process and, as a result, academic performance for the vast majority of students.

5.2.2 Effects on the Healthcare System:

Devices in the medical field have undergone a tremendous transformation. They've gotten much better at what they do. The introduction of IT into these devices has transformed them into digital ones, making it easier to program and use them. Distance operations, the use of robotic limbs and hands, and even artificial cardio-aortic valves are now possible thanks to IT fields like artificial intelligence (AI).

The use of "information technology" in the delivery of healthcare is of great importance. The advancement of computerized patient records will improve the effectiveness, efficiency, and distribution of healthcare. Health care providers and the public health community will increasingly rely on population-based data as managed care programmes grow.

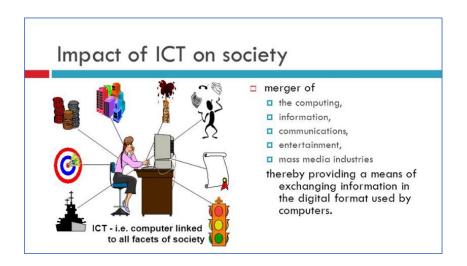
Telecommunication links, particularly telemedicine, will allow underserved communities to gain access to health care in both rural and urban locations in the future.

5.3 Impact of Information and Communication Technology for Society:

The societal influence of information technology can be divided into two categories: the positive and the negative. It can't be 100% negative or 100% positive at the same time. It's a two-edged weapon.

In sociology, the impact of information technology on society was likened to changing the world into a small town comprising the entire world's population, which is called globalization. Before the advent of modern information technology, getting a message across to another person could take weeks or even months.

People from all over the world can now easily and quickly communicate with one another via a variety of means, including instant messaging, phone conversations, and video calls, thanks to advancements in information technology.



Some people's concepts and views have been thrown out of whack as a result of the disruptions brought on by technological advancement. Technology has altered our understanding of a wide range of topics. In addition, it altered the way we dealt with a number of long-standing social mores and practices that were once held in high regard. Despite the fact that current communication technologies have reduced the world to a village-sized community where people can easily communicate, they have also generated a sense of separation and divergence within families itself. There is little to no communication between members of the same family or between people in general. A lack of human connections that's something we've noticed.

"Poor language proficiency" is another example of (IT's) bad impact on society. Having proficiency in a second language is a measure of one's capacity to communicate in that language. The impact of rapidly evolving information technology on society must be taken very seriously. This is due to the fact that students may now utilize instant messaging apps like Line, WeChat, and WhatsApp to stay in touch with their loved ones and friends back home. Using this software, people will have a simpler time exchanging information with one another. As a result, they are less likely to pay attention to things like correct word spelling and grammatical usage. There is an ever-increasing amount of information available online that can lead to inaccuracy and even a "somewhat warped way of thinking" among Internet users.

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During the previous three decades, the computer industry and internet networks have changed the world, and global communication has reached new heights. These advances have opened up a whole new world of possibilities for teaching in a more effective and participatory way. When it comes to distant learning, multimedia technology and the internet have transformed everything, allowing us to have close interactions with our teachers as well as better learning resources than we could have had with solely printed media. A virtual classroom has been created that allows for teachers and students from all corners of the globe to interact virtually.

Through the use of electromagnetic waves, we may be able to work on projects located thousands of miles away. A solution could be found to alleviate some countries' problems with a shortage of skilled workers.

A small business may easily sell its products to another area of the world since they can contact with each other and work out a transaction in a matter of minutes thanks to the worldwide spread of information. Since the advent of internet commerce, it has become much easier for consumers to shop for goods online and complete their purchases promptly. As a result, the buyer does not know who he or she is purchasing from and does not receive any communication from the seller once he or she has paid. Our attention has been drawn to this type of situation.

A more advanced kind of virtual reality, where visuals are projected directly onto the eye's lens (perhaps through a pair of glasses), may allow people to ignore their immediate surroundings. People will be able to travel virtually in this way, for example, by playing a certain program and relaxing, walking around, and taking it easy while they're away.

Business meetings can now be held virtually, rather than in person. In a virtual meeting, the participants can see and hear each other as if they were in the same room as each other. The need of mobility is undeniable today, but in the new millennium, the necessity to travel physically is dwindling dramatically. Instead of flying to New York for a meeting, one may simply attend the conference remotely and save a large amount of time and money (and protect the environment).

A person will only have contact with other people if they want it, and technology will take care of the rest. There will be no need to go shopping anymore, as people will order everything they need via a variety of simple-to-use, elevated devices. The things can be displayed, smelled, feel, and sung.

It would be considerably easier to cure incurable diseases like cancer if the DNA structure could be precisely defined to direct the type of cellbased treatment necessary for a specific patient.

5.4 Conclusion:

Thanks to modern information technology, the world has shrunk to the size of a town. Human existence has been profoundly impacted by the rapid spread of information and communication around the globe, which has resulted in a fundamental shift in society. The world is now completely dependent on technology, even though this technology carries a major risk of destroying society.

The modern world cannot function without the use of information technology. All fields are being affected by technological advancement. Education has had a significant role in human progress and development.

There is no doubt that information technology has had a significant impact on human life, yet this impact has not always been positive. Some can be harmful to both the individual and the community, therefore it's best to avoid them. Traffickers, for example, utilize the Internet to advertise and sell their products.

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