

Importance and Uses of Technology in Research and its Impact on Various Sector

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Abstract:

In the present time, we are seeing continuously improving in technology. Technical progress is not limited to just an area, it extends from small to large scale. Technology plays a crucial role in research as it enables researchers to conduct experiment and analyze data. This paper I will attempt to discuss the importance and uses of technology in research and its impact on various sector like education, human being and society, environment and health etc . Technology has changed the way of performing research and made more efficient and effective. Technology has transformed research by making it faster , more accurate and cost effective in their interest area. Technology is the greatest blessing to humans. If we use it in a good or positive way it will affect our lives positively and have positive impacts on the present and future generations. Technology is an effective tool for designing, enforcing, assaying and assessing exploration. It enhances exploration issues by icing translucency and repetition. Technology innovation makes is possible to improve research tools & research quality. Researchers can take many benefits from increasing technological facilities. They can expand the scope of their research sitting at home. Easily access verified sources of data. Through the new technology, they can easily collect primary data as well as secondary data.

Key words: Technology, Research, Innovation, Digital learning, Environment.

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Introduction:

The word technology comes from two Greek words, transliterated techno & logos. Techno implies craftsmanship, expertise, make or the way, which a thing is picked up. Logos imply a word, the expression by which internal thought is communicated, or an expression. So truly, technology implies words or talk almost the way things

are picked up. Technology is the application of logical information to the viable points of human life or, because It is in some cases expressed, to the altar and control of the human environment.. In today's modern world technology is advancing day-by-day. Due to which the life of human is very easy.

Technology, in general refers to all the tools, machines and devices used in our day-to-day life. It is the result of advancement of science. Technology is now a very integral part of the human life. There have been many technological developments which have made our work easier in each sector. The Integration of technology In investigate has driven to expanded productivity, progressed precision, more prominent openness and unused disclosures and innovations. At the present time, Internet is a popular example of technology advancement. Internet is the probably the most famous means to spread information. Use of internet is also very helpful in research work. Researchers can get information related to their research topic through internet. With technology, researchers have a variety of research tools at their fingertips. With the help of technology, they can solve many problems in less time and can also expand the scope of research.

Objectives:

The main objective of this study is to explore the significance of technology in research field and also need for daily life and focus on:

1. Technological Impact on Education.
2. Technological Impact on Human being and Society.
3. Technological Impact on Environment.
4. Technological Impact on Health.

Finding & analysis:

Technology has made research more efficient and effective. Within the past, analysts had to depend on manual forms, which were time-consuming and labor-intensive. With mechanical progressions, analysts can presently mechanize information collection and investigation forms, sparing time and assets. Technology has proved to be a boon for new researchers. They can understand the entire research pattern with the help of new technology. They can understand research steps and types of research and follow the different methods for their research. Apart from this, they can also get information related to their research from published research. There are many sites where are many research papers and articles are available.

In the 21st century, technology has revolutionized the way scientific research is conducted. From data collection to data analysis, from simulation to collaboration, and from publication to communication, technology has played a pivotal part in perfecting the delicacy and effectiveness of scientific exploration.

Importance of technology in research:

- **Uses in Data Collection:**

The traditional system of collecting data through homemade processes is time-consuming and prone to mortal error. Advanced technologies like sensors, satellites, and wearable devices have made data collection more efficient and accurate. For instance, researchers can use GPS sensors to track animal movements, and satellite imagery to monitor changes in the environment. So also, Se wearable gadgets like wellness trackers can give exact-time information on human behavior and wellbeing, empowering analysts to conduct more precise and accurate considers.

- **Uses in Data Analysis:**

With the appearance of machine learning calculations and manufactured insights apparatuses, information investigation has gotten to be more proficient and precise. These advances can analyze huge datasets, distinguish designs and patterns, and give experiences that might something will else be missed. For example, machine learning algorithms can help researchers analyze complex genetic data and identify genetic mutations that are associated with certain diseases.

- **Uses in Simulation and Modeling:**

Computer reenactments have made it conceivable for analysts to test speculations and reenact complex wonders in a virtual environment. This will spare time and assets, and make strides the exactness of results. For example, physicists can use computer simulations to study the behavior of subatomic particles, and biologists can use simulations to test the efficacy of drugs.

- **Uses in Collaboration:**

Technology has made it easier for researchers from different parts of the world to collaborate and share data and findings. Online tools like videotape conferencing, participated workspaces, and pall-grounded storehouse has made collaboration more effective and effective. This has enabled scientists to work together on large-scale research projects, share expertise, and pool resources.

- **Uses in Publication and Communication:**

The internet has revolutionized the way scientific research is published and communicated. Researchers can publish their work online, making it accessible to a global audience. They can moreover communicate their discoveries through social media, blogs, and other online stages, empowering them to reach a more extensive gathering of people and lock in with the public.

Impact of Technology on various sectors:**1. Technological Impact on Education :**

The digital revolution in education is full steam ahead and its effecting more than just the classification. Technology is making education improve over time, with technology students and parents have a variety of learning tools at their fingertips. With the growing educational technology we are experiencing a better learning environment. With the help of technology students can share and discuss their queries with teachers and more over. They will have great resources for their studies, exams, assignments and research also. The Internet of effects is proven to be one of the most cost-effective styles of educating youthful smarts. With increasing technology the traditional classroom has also changed into digital classroom. Digital classrooms are defined by using electronic bias or platforms similar as social media, multimedia, and mobile phones to educate scholars. With digital technology in education, moment's educational geography has altered for the better or advancements. Digital literacy is a literacy strategy that employs technology to fulfil the entire class and allows scholars to learn snappily and fleetly. The Digital classroom entirely focuses on tutoring via the use of technology.

Digital technologies allow scholars to witness the globe and go away places from the comfort of their computers. Inviting a guest speaker to talk t" the class about their moxie is atrocious to season up any assignment plan. Videotape conferencing systems make it simple to bring a subject-matter expert face- to- face to our classroom, no matter where they are. We can fluently organize a classroom videotape conference with kiddies from another institution. Online pates and other digital technologies engage all scholars, skittish kiddies who would not naturally raise their hands in class. Quizzes are another active literacy strategy that education technology may help. There are so many educational institutions and platform like Unacademy, gradeup, testbook, adda 24×7 which has great resources for students to make their best carrier opportunities for secure their life. To spread education, the Government of India has also started many e-learning platforms like

Swayam, Swayam Prabha, e-pathshala etc., so that an educated India and a self-reliant India can be built.

So, we can say that, the technology has broad effect in technology. Technology has revolutionized the way we learn and pierce information. With the rise of the internet and mobile devices, education has become more accessible and convenient than ever before. Online learning platforms and digital textbooks provide students to 24/7 access to learning materials and resources. Technology also allows for interactive and engaging learning experiences such as virtual simulations and gamified activities.

2. Technological Impact on Human being and society:

Today Technology has made our life easy and has given us so many facilities, which we could never imagined before. Technology has not only given new speed for development to human life but has also brought it to new height of success. It has played an important role in the human life. Technology has given us medium to communicate, communication device like PC, smartphones, tablets and laptops proved to be a best friend of today's generation. Blogging, chatting, self publishing over the internet are common new days. The social networks not only keep people connected virtually but also offers ample of opportunities for earning. Some popular social media app is Twitter, Instagram, Facebook, WhatsApp, Telegram, Google meet etc. these apps are helps to interact the people each other for Personal work, academic purposes, business purposes etc.

Technological progress is completely change the life of human being. Technology has always made work and life easy for human being. Technology has made communication just a button away. With a click of button, we can make calls, send email, fax, order things and do a lot of things with the help of technology. In the past century Technology has been the basis of the industrial revolution. This led to a major change in human lives with the introduction of cars, buses, trains, airplanes, modern clothing, modern architecture, modern engineering for building cities, hospitals, educational institutions etc. Technology has increased the safety of people. With the help of technology there are CCTV cameras made that keeps valuables at the shops and home safe. Everything is captured in the camera and finding the thief becomes easy. Technology has tremendous benefits to our society. Technology has also revolutionized the way we do business, making it possible to work remotely, to conduct the transactions online and to reach the customers all over the world. It has created new industries and job opportunities, and it has led to increased productivity and economic growth.

However technology has some negatives impact on the society. It has led to rise in social isolation, as people spend more time on their devices and less time interacting with each other in person. It has also created new forms of addiction and mental health changes, as people become increasingly dependent on their devices for social connection and entertainment. Additionally the rise of automation leads to job loss in certain industries. Further more, technology raise concerns about privacy, security, and the ethical use of data. The rise of big data and artificial intelligence, where are growing concernes about the potential misuse of personal information and the impact of automation on the workforce.

In conclusion, Technology has had profound impact on our society, both positive and negative. While it has brought tremendous benefits and opportunities, it has also created new challenges and risks that we must be address as a society. As we continue to innovate and develop new technologies, it is important that we do so in a way that is responsible, ethical and equitable and that takes into account the impact on society as a whole.

3. Technological Impact on Environment:

Technology has come a long way in the once many centuries, and it has really had a significant impact on our world. But as we continue to rely on technology more and more, its important to consider the way in which it can affect the environment. The relationship between technology and the environment is crucial for ensuring a sustainable future for all of us. In the early days of human civilization, Technology was relatively simple and had little impact on the environment.

In 21st century Technology growth exploded, leading to even more significant environmental consequences. The industrial revolution saw a search in the use of fossil fuels, leading to increased greenhouse gas emission and climate change. Deforestation also increased as land was cleared for agriculture and industry. One ways in which technology can harm the environment is through pollution. Many Technology processes, such as manufacturing and transportation, produce harmful by-products that can have negative impact on air and water quality. These and other Technology have had a major impact on the environment and its important to consider their long term effect as we continue to rely on technology in the future.

While Technology has certainly had its negative impact on the environment, it's also important to recognize the ways in which it can help reduce environmental harm. Solar panel, wind turbines and hydroelectric power plants all use of technology to harness the power of nature and generate electricity without burning

fossil fuels. This helps reduce hothouse gas emigrations and combat climate change. Another way of Technology is helping the environment is through the development of eco-friendly products. GPS tracking and camera traps are just a few example of how technology is being used to monitor and protect endangered species, while online platform are making it easier for people to get involved in conservation efforts and make a positive impact on the environment.

In conclusion, Technology has had a significant impact on environment, both positive and negative. From the early days of human civilization to the present day, Technology has shaped our relationship with the natural world. By choosing eco friendly products and using energy efficient appliances, we can reduce the negative impact of technology in environment and by getting involved in conservation efforts and supporting clean technologies, we can help create a brighter, more sustainable future for all of us.

4. Technological Impact on Health:

Technology has a significant hand in improving the status in the field of environmental education and human health. The arising growth of the internet services and installations, geographic information system(Civilians), and the data that gets transmitted through satellites etc. have generated a higher affluence of the updated information on several aspects of environment as well as health.

Technology has both positive and negative effect on our health. In positive sides, Technology place a massive role on almost all procedures and practices performed by Health Care professionals. In present age Technology has powerfully influenced the healthcare institutions that majorly concerns with providing the best level of medical services and promotes overall well being of an individual. Technology is successful in getting a patient treated at the early stages the development of element. Hospital room have become digitalised with every room is now equipped with a digital network system. Technology is seen to be a highly beneficial partner with mankind with increasing development time to time. It's influence offer new growth in healthcare industry.

In negative side, there is evidence indicating both the detrimental impact of technology and its excessive use. Social media and mobile widgets may beget cerebral problems as well as physical problems including eyestrain and trouble fastening on pivotal tasks. Additionally, they might exacerbate more severe medical issues like depression. Children and teenagers who are still developing may be more negatively impacted by inordinate uses of Technology. The manner in which many

individuals use their computers and mobile phones could possibly be contributing to poor posture. This could eventually result in muscle skeleton problems. Many technology is encourage users to adopt a down and forward posture which involves hunching forward and gazing down on the screen. The neck and spine maybe subjected to unnecessarily high pressure as a result.

Conclusion:

In conclusion, technology has had a profound impact on scientific research, making it more efficient, accurate, and collaborative. From data collection to data analysis, simulation to collaboration, and publication to communication, technology has enabled researchers to conduct groundbreaking studies that have transformed our understanding of the world. As technology continues to advance, we can expect it to play an even more significant role in scientific research, unlocking new discoveries and insights that will benefit society as a whole.

Various innovations and development took place in the field of Technology which has made a significant impact on our lives in different ways. With the invention of Technology we become more powerful.

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