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# **Role of Technology in Higher Education**

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# ABSTRACT

Technology has become an integral part of sustaining society, and its influence on education is inevitable. Earlier, technology's role in education was limited to teaching methodologies and educating students. The evolution of technology has impacted every aspect of our lives, from banking to how we communicate. Education is inextricably linked to technology, so its integration into technology is inevitable. As a result, it is not surprising that schools have also become a part of this paradigm shift in the world today. Technology has been part of our lives for decades, but it is only recently that the development and application of technology in education have begun to take shape. Technology is one of the most important things we have today, which can assist students in doing better academically. As technology grows, it brings about new ways for students to learn and interact through various mediums.

# I. INTRODUCTION

Colleges and universities have generally been quick to adopt new technologies, often even before their educational value has been proven. Throughout its history, higher education has experimented with technological advances as diverse as the blackboard and the personal computer. Some technologies have become permanent parts of the higher education enterprise. Others, such as the slide rule and the 16-millimeter movie projector, have been replaced as more sophisticated or more cost-effective technologies have emerged to take their place. At the dawn of the twenty-first century, new and rapidly improving technologies are in the process of transforming higher education. Each year since 1994, the Campus Computing Survey has shown increased use in college classrooms of technology-dependent resources such as e-mail, the Internet, course web pages, and computer simulations. Technology has the potential to revolutionize the traditional teaching and learning process. It can eliminate the barriers to education imposed by space and time and dramatically expand access to lifelong learning. Students no longer have to meet in the same place at the same



time to learn together from an instructor. Fundamentally, modern technologies have the ability to change the conception of a higher education institution. No longer is a higher education institution necessarily a physical place with classrooms and residence halls where students come to pursue an advanced education. Thanks to recent developments in technology, the standard American image of a college or university as a collection of ivy-covered buildings may need to be revised for the first time since the founding of Harvard in 1636.

#### What is Education?

Education is a process of teaching, learning, and development. Education consists of transmitting values and knowledge from one generation to another. It is also about learning how to communicate effectively, manage people, and solve problems.

## What is Technology?

Technology is a collection of tools and processes used for accomplishing tasks. It can be anything from a sneaker to a car to an airplane, but its all technology when you boil it down to its bare essentials. Technology is the use of science, engineering and mathematics to develop tools, systems and methods for human activities. It is the collection of knowledge that people have created to solve problems or create new things. Technology is not limited to physical objects but includes virtual objects like software, data, and websites.

## How has technology changed the way of imparting education

Technology has changed the way we impart education. It has made it possible for us to reach out to more students, and it has also made it possible for us to deliver the same lessons in a much more efficient manner. We can now teach our lessons online, meaning we don't have to travel all over the place to teach them. We can also use technology like video conferencing and chat rooms with our students, which means that we don't have to spend time getting to know them and making sure they understand what we're teaching them. This has made a massive difference in how teachers interact with their students. Before technology, teachers had to spend hours preparing for lessons, but they didn't have the option of using technology when they taught them. Now a days, students get better grades because they are more prepared than ever. Technology has made it possible for us to find information from anywhere in the world and share it with others without having to meet them face-to-face physically. This means that students can take their education wherever they go, from their bedrooms to their classrooms to their offices at work. The internet has made learning possible for everyone, no matter where they live or in their country. With the advent of online learning platforms like Udemy, Coursera, and Khan

Academy students are no longer limited to traditional classrooms. They can learn at their own pace and access any educational content they want.

It has also made it easier for teachers to impart their knowledge and expertise to students. Teachers can now use video lectures as well as text-based lessons.

## Importance of technology in education

Education has always been a stepping stone to success. Education helps us grow and learn new things, but it is not enough. To make sure that you are on the right path for your future, it is essential to have a good education. Technology has proven beneficial and transformation in educational settings in particular. Technology is reshaping the world of education from online colleges to digital certificate programs and hybrid set-ups. This can help students get their qualifications faster while providing them with more resources needed to succeed. Technology has also changed how we learn and teach students today. Technology offers us many ways of teaching students online or even in person there are more options than ever before! There are even digital certificates available online, allowing students to get their qualifications quickly without having to travel all over town whenever they need something new added to their resume. The importance of technology can be understated when it comes to learning because it allows us all access to information from anywhere at any time! This means we do not have barriers to getting what we need when it comes time for school or work. Technology allows us all access. The most important thing to remember when considering technology's role in education is that it shouldn't be used as a replacement for human interaction. Instead, Teachers should use it to enhance student learning by providing them with opportunities to use their minds outside of the classroom setting. Students can achieve this through online courses that allow students across the globe to interact with each other and instructors face-to-face or via video conference calls. In addition, virtual reality technology will enable students to learn within an immersive environment, which helps them better retain information when it comes time for them to apply it later on in life.

## Contribution of Technology in Education

- 1. The modern education system is blessed with advanced technologies.
- 2. The emergence of smart classes is the result of smart technologies.
- 3. The use of tecnology in education encourages students to study.
- 4. Technology provides a felxible and engaging way of gainning an education.
- 5. Technology reduces the time and effort of learning.
- 6. Newer technologies attract and excite students to learn more and more.
- 7. Technology helps students to learn the concept more easily.

- 8. Technology has a huge contribution to the education system during the Covid pandemic.
- 9. With technology students can gain education beyond their course.
- 10. Technology has made education possible for every citizen.

# II. ADVANTAGES OF TECHNOLOGY IN EDUCATION

## Technology helps children to stay motivated during the learning process:

Most students don't like to go to school if they feel like wasting their time. When technology is allowed in the classroom, teachers can let kids work at a pace that suits them the best without disturbing others.

This way students can work independently and get the right amount of help from teachers when needed. Students also have an opportunity to do other things like watching movies or playing games while being able to work on their assignments.

Not only does it help with motivation, but it also helps with retention because students can learn more while doing something they enjoy doing instead of sitting in a dull classroom day after day without any distractions from outside sources such as television or other activities may be distracting from learning purposes. If students feel like wasting their time, they will lose interest in school. But when technology is allowed in the classroom, teachers can let kids work at a pace that suits them best without disturbing others. Studies show that kids who use electronic devices in class tend to perform better than those who do not use such devices. This is because using electronic devices allows them to focus on what they are doing instead of being distracted by other things around them.

## Technology allows better communication between teachers and parents:

There are so many ways that technology in the classroom encourages more communication between teachers and parents.

First when there is technology in the classroom, there are more opportunities for parents and teachers to connect. This can be done through texting and emailing or using social media. It can also be done by video chatting.

Second, it helps children stay connected with their parents. If a student doesn't have access to technology at home, then may not feel comfortable talking about their day over dinner or on the phone. However, if there is a way for them to speak with their parents through a computer or smartphone app then they will feel more encouraged to use it.

Third, it helps teachers stay connected with parents too! If there's an easy way for us as educators to communicate with our students' families, then we can work on projects and plan lessons together without



having face-to-face time. In addition, if online resources are available for students, it will save teachers from having to come up with new ways of teaching every time they want something new taught or learned.

Technology also helps make sure that students feel supported by their teachers and families when they need them most this can be especially important when dealing with issues related to mental health or sexuality.

## Technology gives access to behavioural data on students:

Technology has been used to collect behavioural data on students for years. It's a great way to get the information you need to help your students succeed, but it can also be a little scary if you're not sure exactly how much information is being collected.

The various apps, software choices, and technological platforms collect student data that can show attendance patterns, learning issues in specific subjects, and how they react in particular situations. This allows teachers to identify problems early on and work with them before they become too complex to fix. For example, a new app called "My College" uses real-time data to inform teachers of students' attendance rates during class and their progress towards completing homework assignments. This information allows teachers to give individualized attention to each student based on their need and wants.

Teachers can use this information to provide individualized instruction and interventions for students who need it most.

# III. DISADVANTAGES OF TECHNOLOGY IN EDUCATION

# Technology will increase cheating:

Cheating in school is nothing new. It has been around since the beginning of time. But now, there's a new way to cheat technology and now you can cheat without even having to go to school or college with technology, students can send themselves text messages with answers before taking a test or taking part in a quiz. Then they can email those answers to whomever they want and that person won't even have to be at school. This technology has made cheating more accessible and has allowed students to cheat more efficiently than ever before. Students should also know the rules around using technology during quizzes, tests, and general classes. There must be strict rules about how students use technology at college for example no phones are allowed during class discussions or lectures.

## Technology can be distracting for students:

Students are constantly testing the boundaries of what is acceptable and they aren't necessarily stopped until they've found out where those boundaries are. Parents need to be aware of how technology can affect their



children's behaviour. Children who play video games can find themselves reacting to addiction-like behaviours. Their focus is on the entertainment they receive more than anything else. If the educational environment uses reward-based games to encourage learning, the child might be more concerned with what they receive through the software or app instead of what they are learning. For parents, this means that you should be able to detect when your child is engaging in activities that don't match. How much energy and focus they should be putting into schoolwork, especially if this involves electronic devices or apps made specifically for children.

#### Technology is not affordable for everyone:

Whether technology is in the classroom or at home, there is the issue of affordability to worry about in today's world. Some households cannot afford to purchase computers for their kids to manage school work. School districts don't have enough money to pay their salaries yearly, much less add new tech components for learning. Other expenses can make technology unaffordable for some families: repairs, software updates, and utilities (such as electricity). When we focus on having technology in the classroom, we place those at the lowest end of the wage scale at a significant disadvantage. With less money, they have less access to lessons and can't afford to purchase devices. Students with greater access can learn more and access lessons more often.

## **IV. CONCLUSION**

The use of technology in education will bring a drastic change in our education system. Technology cannot replace the human touch in imparting education. It, however, plays a paramount role in improving efficiency. Students character gets affected when they spend too much time on computers and bright devices. Instead of making them tech-savvy, it makes them less practical and more imaginative. The transition from traditional teaching methods to technology for teaching has a remarkable impact on the student. As a result, their level of awareness increased, and the student picked up things quickly and multiplied their knowledge instantly. But some challenges need to be met regarding the use of technology in education by the students. The challenges are innovation, maintenance and reliable infrastructure to support the advanced technology used in the learning process.

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