



Modern Technology in Education : A review

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Abstract

People commonly refer to the twenty-first century as the technological age. In today's world, technology is an essential part of our daily lives. Distances no longer exist as a barrier to education, thanks solely to technological advancements. There are several ways in which technology has had an influence on our lives, and one of them is in education. By definition, education is the transmission of information, skills, and habits from one generation to the next by means of instruction, training, and research. Because of the widespread use of information and communication technologies, educational technology is more important than ever before (ICT). A systematic approach to using contemporary technology to improve education is called educational technology. Learning and teaching may be conceptualised and evaluated in a systematic fashion using this method, and it can assist in the use of current educational teaching methods. New roles for technology in education are being explored in this study, which is a conceptual effort to understand how technology has evolved through time.

Key Words: Education, Modern, Technology, Teaching etc.

Introduction

The twenty-first century is often described as the technological age. Our daily lives would be unimaginable without the advancements made possible by modern technology. It is seen as a foundation for economic development. An economy that lacks technological advancement is doomed to stagnation in the modern world. This is due to the fact that technology has made our jobs simpler and more efficient. Education is one of the many fields where the effect of technology may be seen.

Every day, technology is transforming the way people work, play, and communicate. So it's only logical that new developments in digital technology are also transforming the educational landscape.



Teachers now have a wealth of resources at their fingertips because to technological advancements. “Assistive technology, virtual and augmented reality, high-tech collaboration tools, gamification, podcasting, blogging, 3D printing, artificial intelligence, customised learning, and much more are all generating a great deal of interest nowadays.

Some of the most promising educational technology examples and trends will be discussed in this section. For starters, let's define what we mean by educational technology," as the term may be used to describe any of the following:

- Educational approaches to learning theory and practise, as well as
- Information-gathering and knowledge-transmission technologies

Modern technology in education

When it comes to student learning and engagement, new research shows that students prefer to utilise technology and that using technology has a positive influence on student learning. Using technology makes it more exciting and participatory for them, too. As a result, the dissemination of information is made simple, convenient, and effective. Using technology in whatever area of life, including schooling, speeds up our brains, thus this is a positive development. Even in schools, universities, and colleges, students have come to rely on and depend on new technologies that make life simpler and more enjoyable. The following are some ways in which students today may make use of technology:

- **Internet connection and round the clock connectivity**

Over the last decade, the internet's significance has multiplied many times over. No longer can its significance in the educational community be understated. Internet access is a boon to students, despite the risks of fraud and other downsides. The internet has become ubiquitous in our daily lives, permeating practically every aspect of our lives. Our phones, game consoles, and television sets are all connected to the internet in some way. Many resources, such as tutorials and other supplementary materials, may be accessed by students with ease over the internet, allowing them to improve their academic performance and progress.

- **Using projectors and visuals**



When it comes to appealing to the senses, visuals are always more powerful than words. Another fantastic application of technology is to employ projectors and visual aids to help students study. The most prestigious educational institutions in the world today depend on dynamic PowerPoint presentations and projections to keep students engaged and interested in the material being taught. The usage of projectors in schools and colleges may increase the amount of engagement and interest, as well as the level of motivation among students. “When it comes to teaching students, they prefer pictures that pique their interest rather than simply words. When it comes to technology, the learning process is also streamlined.

- **Digital footprint in the education sector**

In terms of digital and education, the use of digital media in the education sector is currently more widespread than it was before. There has been an increase in the number of students and forums that are open around the clock to assist with coursework and other tasks. There are and will be more apps to help pupils grow and learn as the potential of digital expands.

- **Online degrees with the use of technology**

Online degrees are increasingly a typical occurrence. For educational and certification purposes, many people are interested in taking online courses. Some of the best universities in the world provide a wide variety of online programmes that may be accessed via different apps and the internet. As support and awareness grows for this idea, it will continue to climb. Online degree programmes are increasingly popular among students who work and are looking for programmes that provide for flexibility in their schedules.

Importance of technology in education

Education technology has a fourfold purpose: curriculum integration, instructional delivery, instruction support, and enhancement of the overall learning process. It is all part of the role of technology in education. Education has shifted from being passive and reactive to becoming participatory and combative as a result of technological advancements. Both in the workplace and in the classroom, education is a must. Workers in the former are given the opportunity to learn new skills and adapt their work habits. In the second case, the goal is to pique pupils' interest in learning new things. The use of technology may help pupils better comprehend and remember information in both cases.



Factors affecting technology in education

In his writings, Jung discusses the significant challenges that our society's instructors face as a result of the fast growth of information. Teachers must become tech-savvy in order to keep up with the rapidly changing landscape of education. Since these new technologies need more training for instructors, so too do these new technologies. Teachers' attitudes toward computers have a critical role in the effectiveness of ICT in education implementation. – They emphasised the fact that instructors' views toward computers aren't always favourable, and that this might contribute to computer-based initiatives failing. Among the most often stated obstacles are the following:

- lack of time;
- lack of access;
- lack of resources;
- lack of expertise and
- lack of support

Another is trustworthiness. Hardware failures, incompatibility between home and school software, poor or sluggish internet access, and out-of-date software that is largely available at school while the students/educators have more up-to-date software at home were among the reliability issues.

Impact of ICT on education

ICT has the potential to make education more accessible while also enhancing its usefulness and quality. For instructors and students alike, Tinio (2002) claimed that the promotion of:

- **Active learning:** Calculation and analysis of test information, as well as student performance reports, are all made easier via the use of ICT technologies. Learners who use ICT are more engaged than those who use traditional methods of teaching that rely on memory or rote repetition.
- **Collaborative and Cooperative learning:** Students and instructors can collaborate and communicate with each other regardless of the distance between them thanks to the use of ICT. The opportunity to work in teams with individuals from diverse cultures and backgrounds helps students improve their communication and global understanding.



Researchers have discovered that students and instructors tend to have more of an engaged interaction when using ICT in the classroom and outside of it. When people work together, they take responsibility for their own activities while also learning to appreciate and respect the skills and contributions of their colleagues.

- **Creative Learning:** The use of information and communication technology (ICT) may be used to develop new knowledge from existing information, whether it's for a physical product or a specific educational goal.
- **Integrative learning:** By removing the synthetic boundary between theory and practise, ICT encourages an integrated approach to teaching and learning, unlike in the conventional classroom where emphasis is on a single element..
- **Evaluative learning:** Student-centered and interactive, the use of ICT for learning delivers important feedback via a wide range of interactive features Instead of memorising and rote learning, ICT allows students to investigate and learn via innovative approaches of teaching and learning that are supported by constructivist theories of learning.

Positive impact

1. Enhanced Teaching and Learning:

- Teachers may use digital cameras, projectors, mind training software, computers, Power Point presentations, and 3D visualisation tools to help pupils understand concepts more quickly.
- It's important to remember that pupils have a more positive attitude toward learning when topics are visually explained. In the classroom, they're able to engage more actively, and even professors have the opportunity to make their lessons more dynamic and engaging.

2. Globalization:

- Video conferencing allows kids who attend school in various regions of the state to virtually meet in the classroom.
- In order to assist pupils learn a foreign language, certain services, such as www.glovico.com, connect them up with a tutor in another nation.

3. No Geographical Limitations:



- Online degree programmes have made it unnecessary to be physically present in the classroom. Even some international colleges have begun offering online degree programmes for students to enrol in”.
- In today's educational system, distance learning and online education are becoming more significant.

Conclusion

The term "educational technology" refers to any technology that facilitates active learning in a classroom. With the use of educational technology, teachers may design interactive digital textbooks and engage students via gamification, track attendance, give homework, and administer exams and quizzes that provide instant feedback on the effectiveness of their teachings. Learning in an environment that includes cellphones, computers, and tablets is upsetting conventional schooling and teaching techniques because of educational technology. Both beneficial and bad impacts of technology may be seen in schooling. Teachers and students should take advantage of this in a positive perspective and minimise the limitations that are preventing many pupils as well as schools from realising their full potential.. As a result, it is time for every nation to implement a more technologically advanced education sector in the near future.

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