Quest Journals
Journal of Education, Arts, Law and Multidisplinary
Volume 13 ~ Issue 1 (2023) pp: 33-36
ISSN(Online):2347-2895
www.questjournals.org

Research Paper

Education Technology: Meaning, History and Advantages

Dr. Jayant Bansod & Ms Vidya Rathod
[1 2] *SL Mankar college of Education Amgaon District Gondia. pin code 441902*

Abstract
For a person to develop fully, they must have an education. Education was not traditionally accessible to everyone. There were significant portions of society that lacked it, and even in nations where education was widely available, there were still many difficulties in making it available to the general people. Technology advancements have made education more accessible than it formerly was. Education has significantly improved because to innovations like the online classroom and education television. There is a growing global consensus regarding the advantages that can be provided to the educational system via the appropriate application of developing technology. Practically all spheres of activity where information and communication are essential have seen the advantages. It contributes to better teaching and learning practises that lead to better student outcomes, higher levels of student involvement, and smoother interaction between educators and parents. The employment of technology in the sphere of education has generally had a good impact, even though some negative aspects have also surfaced. Technology will inevitably be used in the sphere of education; the important thing is how we use it. This essay tries to investigate how technology has affected education.

Keywords*: Education, Technology advancements, Online classroom, learning outcomes etc.*

I. Introduction

Humans have focused on methods for attaining better educational opportunities because knowledge and information are currently the primary keys to obtaining comfort, prosperity, and productivity. In the twenty-first century, education is where all advancements and improvements originate. Technology will inevitably control our present and future. This is an unavoidable fact that we must acknowledge. It has dominated over various aspects of our lives and shaped how we live. Since the advent of a class structure based on technology, student-teacher contact has undergone a significant change. The teacher now serves as a conduit for knowledge to reach the students rather than being the focal point of the classroom. The pupils have changed from being passive listeners to being active participants in gathering, organising, and presenting information.

As technology advances, there are many uses for it in various fields. The same applies to education. The many classroom technology have had a significant impact on students' general education all around the world.

Technology in education refers to the use of all forms of contemporary media and resources to enhance learning. Experts propose education technology as one of the potential tools for efficiently and effectively delivering education.

In the past, educators used strict, formal, and stereotyped methods of instruction. During that time, education was seen as a means of disseminating information and concepts. Students used to memorise everything from their textbooks or teachers by heart. They frequently had trouble understanding what was being taught, and when it came time for the exam, they were expected to copy. Students sat in silence, unable to ask any logical questions or engage in autonomous thought.

The modern learner is no longer seen as a blank slate waiting to be filled with data. Kids are now expected to use a wide variety of media and resources to achieve a well-rounded education. Education is seen as a social interaction and communication process. The modern educator must aid, direct, and facilitate the development of the student. In addition to helping adult learners in their quest for information and skills, the teacher must also excite and inspire young students.

Technology in education

The definition of technology in education is a collection of instruments that support student learning. It also includes research into and ethical use of e-learning facilitation, which is the creation, use, and administration of appropriate technology procedures and resources for learning and performance improvement. The term "technology" is used broadly in educational technology to refer to the resources and tools utilised to improve and advance educational skill.

The Evolution of Technology in Education

Technology used in education can be traced back to the development of very primitive instruments, such as paintings on cave walls. But typically, the debut of instructional films in the 1900s or Sidney Presser's Mechanical Teaching Machines in the 1920s marks the beginning of its history.

The first widespread application of new technologies was in the US military's training of soldiers during World War II using training videos and other media. Present-day presentation-based technology comes in many different forms, such as streaming audio and video or PowerPoint presentations, and is based on the premise that individuals may learn through aural and visual reception.

Several schools have used computer-based learning (CBL) systems since the 1990s. They frequently draw from constructivism and theories of cognitive learning. These settings emphasise both abstract and subject-specific problem-solving learning.

The advent of various media and pervasive technology in the 2000s gave contextual learning theories that prioritise learning in context new life. Kids today are developing in a digital world where they are frequently exposed to various media.

Why is technology employed in the education sector?

According to economists, there are three things that cause growth, which is based on rising human capability.

The ability of the workforce to employ equipment that is more productive than previous iterations is known as capital deepening.

• Better labour - a more educated labour force that can increase the value of economic output.

• Technological innovation - The workforce's capacity to produce, disseminate, share, and use new information.

Three complementary, if slightly overlapping, methods that link educational policy with economic development are based on these three productivity criteria.

• The Technological Literacy method - By integrating technology skills into the school curriculum, students, citizens, and the workforce will employ modern technologies to a greater extent.

• The Knowledge Deepening approach - Improving students', citizens', and workers' capacity to use knowledge to address challenging real-world problems and contribute to society and the economy.

• The Knowledge Creation approach - Improving students', citizens', and workers' capacity for innovation, creation of new knowledge, and exploitation of that knowledge.

Advantages of Technologies used in Education

There are many different technologies being employed in the field of education nowadays, and they have proved helpful for education. One of these is:

• Computer in the classroom: Each teacher can benefit from having a computer in the classroom. Teachers can showcase new lessons, offer new material, demonstrate how to use new applications, and exhibit fresh information on websites when there is a computer in the classroom.

• Education Television: Those who previously had no access to education can now receive education in their own homes. Education is becoming more engaging for pupils and interactive as a result.

• Wikipedia and class blogs: A number of Web 2.0 resources are currently being used in the classroom. With the help of blogs, students may keep an ongoing conversation going about their thoughts, ideas, and assignments while also allowing for student feedback and reflection. Wikipedia is a more collectively oriented online encyclopedia. It enables group members to collaborate on the editing of a single document, resulting in a thoroughly edited final output.

• Wireless microphones for classrooms: It's common for classrooms to be noisy, but microphones let students hear their lecturers more effectively in these situations. When the teacher can be heard clearly, the students learn more.

• Mobile devices: By giving teachers the chance to get feedback, mobile devices like a tablet or smart phone can be used to improve the experience in the classroom.

• Interactive Whiteboards: A touch-sensitive interactive whiteboard that lets users operate computer programs. They enrich the learning environment by displaying anything that can be displayed on a computer screen. The students can draw, write, or alter images on the interactive whiteboard thanks to this, which not only supports visual learning.
• Digital video-on-demand: By avoiding the use of the open Internet, digital video eliminates the requirement for in-classroom gear and enables teachers and students to instantly access video clips.
• Internet media: Websites that stream videos can be used to improve lessons in the classroom.
• Online study tools: These are resources that encourage learning by making it more enjoyable or personalised for the user.
• Digital Games: Over the past few years, the market for instructional and serious games has seen substantial growth. The use of digital games in the classroom has received a lot of good feedback, including an increase in student motivation.

India Education Technology Project

The Education Technology Project was included in the Indian government's Fifth Five Year Plan in 1971 after the Ministry of Education and Social Welfare acknowledged the value of educational technology for qualitatively improving education. The following four sub-schemes made up this project:
• Establishing a unit for education technology inside the ministry of welfare and education.
• Founding the NCERT's Center for Education Technology (CET).
• Fully assisting States in the establishment of Education Technology Cells and associated programmes.
• Supporting some educational institutions in their implementation of education technology programmes.
As a result, a unit was established in the Ministry in 1971, and a CET was established in the NCERT in 1973. From 1972–1973, Education Technology Cells are established in various states.
All planning, policy creation, and funding for the execution of the educational initiative fell within the purview of the ministry's unit. The NCERT's CET began operating in the following fields: designing and implementing systems.
• The creation of appropriate hardware and software prototypes.
• Instruction in several facets of educational technology.
• Analysis and Research
• Information, data, and consulting services distribution and gathering.
The Ministry of Education and Social Welfare, the Ministry of Information and Broadcasting, the Indian Space Research Organization, and other relevant organisations came together to create the Education Technologies initiative. The significance of inter-agency coordination, methodical planning, scientific evaluation, and efficient utilisation was emphasised. Operationally, the plan aimed to make technology more accessible to big populations, especially those in rural areas. It sought to raise educational standards at all levels, lessen waste and stagnation, and bring in new teaching strategies and creativity.
The UNESCO initiative Information and Communication Technologies (ICT) for Education recently undertook a thorough consultation to determine the competencies that teachers should acquire to use technology in the classroom effectively. It is essentially an umbrella phrase that includes all information-accessing communication technologies, including videoconferencing, e-mail, blogs, wireless networks, cell phones, satellite communications, digital television, computer and network hardware, and computer and network software.

India's difficulties using technology in education

India still has a teething problem with the new educational technologies, despite their early adoption in the system.Lack of adequate technical support for educational institutions; insufficient opportunities for teacher training; ignorance of ways to incorporate technologies into curriculum; low priority given to education technologies integration; students and teachers not having access to necessary technology at home. Insufficient access to computer hardware and software in educational institutions.

Drawbacks of modern technology

The adoption of modern technologies in education also has some drawbacks. With this adoption of cutting-edge technologies in education, numerous ethical difficulties and questions arise.

• The copy and paste syndrome: Colleges and institutions are increasingly having issues with students who use content from websites or blogs to create essays, projects, or presentations. Students frequently just copy and paste bits of information that seem relevant without understanding them or even citing them.
• Reality distortion - Students typically use a search engine when looking for information on the website. This will provide them with a ranked list of frequently a huge number of search results. Because someone

with enough money may sway what is published or ranked on the internet, there is a genuine risk that this will skew their perception of reality.

• Too much faith in the information found - While looking up information on a website, students frequently accept the results as factual information without checking out further sources and as a result, without having any basis for doing so.

• Privacy loss and profiling - When students use services made available through websites, they frequently give the service providers access to their personal data. If a company offers a variety of services, the problem becomes even more challenging because a very thorough profile can be created by combining all the information that might be gathered.

There is no question that certain businesses are gathering data or creating profiles of users and important economic developments. This can be done covertly or through public social networks where a lot of people divulge information that could later prove harmful to them.

II. Conclusion

The enormous effort put out by students to research using several printed books and publications might be lessened by technology. The time saved can allow students to concentrate more on critical information acquisition tasks. Technology may portray education in ways that assist students comprehend the newest theories and concepts, which is very crucial. Teachers can incorporate project-based learning thanks to technology in education. Students of all levels can use these resources under the direction of skilled teachers to build knowledge and hone skills necessary in contemporary society, such as presenting and analytical abilities.

The teacher's job in education nowadays is that of a facilitator. The teacher must help kids learn by giving them access to technology. As a result, teachers are better able to meet the unique demands of different students and readily engage their attention.

References:

[1]. Research Report of NCERT, 2009, http://www.ncert.nic.in/newncert/rightside/links/pdf/focus group/educational_technology.pdf
[2]. The National Policy on Education (NPE,) 2009, www.ncert.nic.in/oth_anoun/npe86.pdf
[3]. Kessler Sarah, 2010, http://mashable.com/2010/11/22/technology-in-education. As retrieved on 02/10/2018
[4]. Jagannath Mohanty, Modern Trends in Indian Education, Second Revised & Enlarged Edition, 2004, Deep & Deep Publication Pvt. Ltd.
[5]. Richey, R.C.,2008, Reflections on the 2008 AECT, Definitions of the Field. Tech Trends
[6]. Teaching with Technology, 2006, http://cte.uwaterloo.ca /teaching with technology. As retrieved on 02/10/2018
[7]. ICT in Education in India, 2012-13, http://www.icbse.com/ict-education.As retrieved on 04/10/2018
[8].

Shri LAXMANRAO MANKAR COLLEGE OF Education Amgaon Acknowledge to Shri Keshavrao Mankar Secretary BSS and Dr DK Sanghi Principal Astt. Professor