Influences of Technology Based Learning in Education

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Abstract – We cannot overstate the value of technology in the classroom, since it has made it easier for teachers to teach and for students to learn. The usage of technology has made teaching and learning more fun. One of the most significant advantages of e-learning is that it has the ability to make learning and teaching independent of time, location, and speed. The benefits that e-learning can provide It was possible to overcome traditional classroom constraints and construct an open, low-cost, contemporary, and technology-based virtual campus. As a result, new technological boundaries have emerged, which can be minimized by a thorough analysis of the design and technology used. Educators are in a unique position to create and implement innovative learning systems based on learning research, educational technology, and educational innovations.

Keywords – Influences, Technology, Learning, Education and E-Learning etc.

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INTRODUCTION

Some have expressed doubts about educational technology's ability to improve student learning and its perceived high cost in recent years. As an example, government funding for educational technology programmes increased from $21 million in 1995 to $729 million in 2001. According to Market Data Retrieval, 70 percent of school districts throughout the US predicted technology spending to rise or remain the same in the 2006. In the wake of massive school technology investments, there has been much discussion on the impact that technology has on education [1]. Students' achievement, motivation, and self-concept were shown to be positively correlated with technological advancements in this research, which was funded in part by the software sector, raising ethical concerns about the study's validity. Critics have frequently disputed the accuracy of such claims, even when they come from industry insiders. In today's fast changing technology environment, the modern classroom should reflect what is happening in the real world. Learning may be made more meaningful by showing students how their knowledge can be put to use in the real world.

One of the key aims of the aim of No Child Left Behind was to bridge the digital divide between students from different socioeconomic and racial backgrounds. There are two elementary schools in the school district included in this study that have higher numbers of lower income students. The majority of students do not have access to the same resources to learn about, or

have prior knowledge of, computer skills, and are, in many cases, technologically illiterate. For the 1:1 Technology pilot, two classrooms from the participating school district were selected. This pilot's hope and goal is to see if using 1:1 technology in the classroom improves student academic achievement. This research investigated the impact of 1:1 technology on student motivation, moving far beyond the original target. Advanced models of technology incorporation at the other end of the educational technology spectrum have given students greater influence over their own learning. Teachers observed improved student work interest and habits. It's also important that these classrooms meet the needs of all students. Divergent learning methods are supported by technology; this contributes to the development of a sense of community as well as a memorable experience. When technology is implemented appropriately in the classroom, it may excite kids in many subject areas, including arithmetic, social studies, and reading. With the correct usage of assistive technology devices, students with learning difficulties will be able to access material and stay up with their classmates in a regular classroom [2].

IMPORTANCE OF TECHNOLOGY IN EDUCATION

There are four primary functions that educational technology plays: curricular integration, instructional delivery, guidance support, and process enhancement. Because of technology

improvements, education has gone from passive and reactive to dynamic and competitive. Education is essential in both the workplace and the classroom. In the former, employees are instructed or trained to do tasks in a new way. This kind of instruction aims to get pupils interested in the subject matter. Anyhow, the usage of technology will help pupils better learn and retain topics [3].

Factors affecting technology in education

To remain relevant, today's educators must become adept at integrating new technologies into their classrooms. Consequently, teachers' training needs have increased as a consequence of these new innovations. According to Gressard and Loyd (1985), teachers' attitudes toward computers play a critical role in the effective deployment of ICT in education. They made the point that instructors don't always have a good attitude toward computers, and that their bad views would lead computer-based initiatives to fail.

The following are some of the most frequently mentioned roadblocks [4]:

•   A scarcity of time;

•   A lack of accessibility;

•   A shortage of funds;

•   A shortage of information and

•   There is a shortage of support.

INFLUENCES 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 argued that ICT has a significant influence on knowledge acquisition and retention through the promotion of [5]:

Active learning: Computers are being used to calculate and analyze information gathered during examinations, as well as students' performance reports, which can be accessed at any time. ICT improves student engagement by allowing learners to pick what to study at their own speed and to work on real-world issues.

Collaborative and Cooperative learning: Students and instructors may communicate and work together more effectively via ICT, regardless of how far apart they are geographically. As a result, kids learn how to interact with individuals from a variety of cultural backgrounds and gain a broader perspective on the world around them.

Creative Learning: The use of information and communication technology (ICT) can lead to the

creation of one's own knowledge and the creation of a concrete product or a specific educational objective.

Integrative learning: In contrast to the conventional classroom, where emphasis is placed on a single topic, The synthetic line between theory and practice is eliminated by ICT, encouraging an integrated approach to teaching and learning.

Evaluative learning: Interactivity and feedback are provided to students through the usage of ICT in the classroom. New approaches of teaching and learning, supported by constructivist theories of learning, allow students to find and learn instead of doing memorization and rote learning [6].

POSITIVE AND NEGATIVE IMPACTS OF TECHNOLOGY BASED LEARNING

Positive impact

1.   **Enhanced Teaching and Learning:** To assist students grasp things more rapidly, teachers may employ digital cameras, projectors, mind training software, computers, Power Point presentations, and 3D visualization tools. It's vital to remember that students learn more effectively when they are presented with visual representations of the material. They're able to participate more actively in the classroom, and even academics have the ability to make their lectures more fascinating and engaging [7].

2.   **Globalization:** Students who attend school in various sections of the state can "meet" their peers via video conferencing without ever having to leave the classroom. Students can study a foreign language online with the aid of websites like www.glovico.com, which matches a class of students with an instructor in another nation.

3.   **No Geographical Limitations:** There is no longer a necessity to be physically present in the classroom with the development of online degree programmes. Online degree programmes have been launched by a number of colleges across the world, including several in the United States. Today, online and distance learning are essential components of the educational system.

Negative impact

1.   **Declining Writing Skills:** Computer technology is too expensive for many kids. On the other hand, technology may have both beneficial and harmful consequences on education. As a positive opportunity, educators and students alike should seize it

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and do away with the roadblocks that prevent many students and institutions from reaching their full potential. This means that in the future, every country should have a more technologically advanced education system.

HOW TECHNOLOGIES PROMOTE LEARNING

Students benefit from the use of technology. It helps students remember more information by making them more engaged. A more meaningful educational experience may be made possible for pupils by using technology [8].

- Students may use technology to convey their views, ideas, and beliefs, as well as build organized knowledge bases, which assists in the production of knowledge.

- Using technology, students may compare and contrast different worldviews and beliefs in order to better understand the subject matter at hand.

- Technology can be used to demonstrate and arouse meaningful problems, circumstances, and contexts, as well as expose values, points of view, and arguments, and define a controllable problem space for students' thought.

- Technology is a social means of promoting learning through facilitating dialogue among knowledge-based societies, as well as debating, reasoning, and finding a consensus among members of a community.

- Technology can help learners articulate and indicate what they know, think about what they've learned and how they learned it, support internal conversations and meaning construction, create personal representations of meaning, and support imaginative thinking.

This technology allows teachers to create their own online learning communities that are not restricted to their own institution. Many schools in the same or separate school districts may collaborate by utilizing a wiki or another content delivery system to share information. It's thrilling for instructors to generate their own content and share it with their peers in addition to obtaining training and information from a central authority, such as district or state personnel [9].

MAJOR ISSUES IN THE USE OF TECHNOLOGY

There are a number of difficulties that must be addressed before we can really comprehend the future of technology in education and make recommendations for the future use of technology. For the most part, technological challenges can be broken down into three broad categories: integrating new technologies into existing learning theories, evaluating the effectiveness of new technologies in educational settings, and conducting trials of successful technology integration in related areas. In the absence of previous learning theories that justify the use of technology in education, it is only a waste of time and money to use technology.

An enormous amount of study and design ideas have gone into historically recognized theories of learning. In order for technology to be used effectively, it must be able to work with existing educational theories and techniques. It is possible to develop successful classes based on understanding how people learn. Consequently, instructional technology is most efficient when it is aligned with established learning theory frameworks [10].

EDUCATIONAL TECHNOLOGY: ITS INFLUENCES ON EDUCATION

Teaching and learning in the twenty-first century can be improved and extended via the use of a technology-enhanced cocktail. Teachers and students can benefit from the teaching and learning possibilities provided by ICT in educational settings when it is used properly. While technology is an important component, Microsoft's founder and CEO Bill Gates said that "all the computers in the world won't matter without excited kids, talented and devoted instructors, interested and educated parents, a culture that emphasizes the importance of lifelong learning." As a result, it is imperative that educators be able to use not only today's technology, but also be able to learn and adapt to new technologies in the future (Partnership for 21st Century Skills, 2007). Teachers across the world must learn how to utilize and educate with the aid of current technology. This initial training determines the ways in which teachers use ICT in their teaching-learning activities in schools and classrooms and is therefore critical for teacher education institutions to devise plans and strategies to train teachers, in particular pre-service teachers, to be well-prepared to deal with the influx of changes.

Areas in which educational technology has influenced education are:

- Education and training

- Teaching and learning methods and practices have undergone a radical transformation.

- Learning, not teaching, should take priority.

- The use of media in education and the creation of a taxonomy of media.

- Education must be expanded both in terms of quantity and quality.

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- Special education and non-formal education.

- New standards and procedures for evaluation have been developed.

- Research, assessment, and recycling in education are emphasized in this section.

- Teachers now have a new role and a greater emphasis on in-service training.

- Appearance of teacher's centres and resource libraries.

- To support the integration of programme producers, course designers, and students, educational organizations must make structural changes.

- Economics and cost-effective factors should be used in education.

- This includes the use of educational technology in the area of continuing and lifelong education.

- How to speak fluently in any language.

Using technology to help instructors and students better understand each student's unique learning abilities throughout the spectrum of learning is an excellent use of technology [11].

EDUCATIONAL TECHNOLOGY STATUS WORLDWIDE:

There are a variety of approaches to educational technology in different nations because of cultural differences and diverse understandings of educational technology. The Educational Technology Program does not exist in every country. Each country's approach to instructional technology reveals something about its character and its ties to other fields within the education sector. The use of ICT in schooling (Primary and Secondary) "The governments of South Asia's countries are now eager and dedicated to investigate the application of ICTs in school education. Consequently, policy changes in recent years show that the government now recognizes the significance of ICT integration and the promotion of high-quality education that is made possible by ICTs. When striving to improve education and standardize quality across the system, the construction of educational networks provides enormous economies of size and scope. Because of this, governments are investing in infrastructural facilities that connect schools and educational institutions with resource centres.

Even while administrators and academics alike have recognized the promise of ICT in enhancing access to excellent education, the use of ICTs in school education in the South Asian countries is still in its infancy. Classifying nations in Asia-Pacific based on their use and appreciation of ICTs is shown in the following table. It demonstrates that the Asia-Pacific region has a high level of appreciation for ICTs.

EDUCATIONAL TECHNOLOGY IN TEACHER AND STUDENTS EDUCATION

Key to effective learning in today's technology-mediated society is guaranteeing an innovative teaching and learning environment. The philosophy and practice of educational technology have seen significant changes and difficulties in the last several years. Teachers have been forced to reevaluate their methods of instruction due to advances in knowledge about human learning processes and the nature of knowledge. The options for supporting classroom and distant learning have changed and grown as a result of advancements in information and communication technology (ICT). Digitization of more and more educational resources has the potential to challenge long-held assumptions about how resources are developed, stored, and used. In other words, the times call for a fresh way of looking at what educational technology means. In a nutshell, educational technology refers to the judicious use of human and material resources to solve educational issues and enhance educational processes and products. UNESCO held a symposium in Paris in 1978 to train educational technology experts and the conclusion was that "managers of educational technology shape technicians into specialists and then into groups. Initially, the focus was on developing technical and practical abilities; then, it shifted to maximizing the teaching-learning process using various media; and finally, it moved to developing new attitudes and orientations [12].

CONCLUSION

The technology-enhanced, improve and expand teaching and learning in the twenty-first century. There are several advantages for both teachers and students to using ICT in educational settings when it is appropriately utilized. Because of cultural variations and differing conceptions of educational technology, many countries take varied approaches to educational technology. Teachers that are primarily concerned with their students typically uninformed of technology outside of the classroom and learning environment, Educators should be given the chance to try out new technologies in the classroom by forming professional learning communities, according to this study's findings. There's something uplifting about seeing how technology is used in the classroom. Many student instructors have expressed a worry about teaching pupils how to use technology-enhanced approaches and tactics. Since these students will confront many problems when they begin their careers as teachers, teacher education institutes should seek to educate and prepare them.

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