The Role of Educational Technology in Academia

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1. INTRODUCTION AND BACKGROUND

Educational technology uses a combination of computer software, hardware, and educational theory for practices and facilitation of learning. The basis of educational technology has been theoretical knowledge from multiple disciplines like education, communication, sociology, psychology, computer science, and artificial intelligence (Lazar, 2015). Moreover, it has encompassed various domains, including online learning, computer-based training, learning theory, and m-learning, especially where mobile technologies are used (Lazar, 2015).

Besides this, with the rise in educational technology, collaboration has also increased, especially in an environment that involves active learning. When educational technology is used, some interactive textbooks, lessons, homework, test, and quizzes are created that are digital and can help get real-time results related to teaching style, format, and material (Bhakta & Dutta, 2016). However, with the popularity of educational technology, traditional teaching methods, and education is being disrupted, and students and teachers are being offered the ability to learn in environments comprising devices like tablets, laptops, and smartphones (Bhakta & Dutta, 2016).

It has also become important to have educational technology in education because of the help it provides teachers in integrating new tools and technologies on class premises. The teachers also get opportunities to improve and upgrade the classroom's learner-centeredness. Moreover, teachers can also engage with their students in innovative, unique, and equitable ways. The teachers can also expand their networks to find ways to connect with other educators and teachers worldwide, too (Raja & Nagasubramani, 2018).

2. EDUCATIONAL TECHNOLOGY

Educational technology is considered to be a process that is quite systematic and organized to apply in modern technology to improve education quality. Due to educational technology, there is a systematic way provided for conceptualizing the evaluation of educational processes involving teaching and learning using modern teaching techniques. Other than this, there is also an inclusion of methods, instructional materials, and the organization of relationships and work, which can shape the behavior of people involved in the educational processes (Samadbeik et al., 2018).

3. EDUCATIONAL TECHNOLOGY AS A TEACHING TOOL

In educational technology, there are three domains: technology as a teaching tool, as a learning tool, and as a tutor, basically, a computer that provides the user with instructions and guidance (Minamatov, 2021). Thus, when the use and benefits of educational technology are studied, it can be suggested that education technology has not yet taken the right place, even though many recommendations are provided. The main reason for this can be the state of children who reside in poor or less privileged areas where they are very limited or rarely use the internet as a learning tool (Minamatov, 2021).

Some studies have also found that many students are now using modern technical equipment for educational purposes. Also, instructors and teachers find it progressive and easy to use technology in education as their teaching tool (Gill, 2019). Moreover, there must be a primary focus on the educational value of tools and applications used and how adequate they can be for acquiring knowledge. However, there can also be an interaction between the user and tools, and there also may be some positive effects to using them (Gill, 2019).

4. IMPORTANCE OF EDUCATIONAL TECHNOLOGY IN TEACHING

Educational technology has held great importance in teaching. Since many schools are not using computers today, the teaching process is still traditional. The teachers have enough interaction with the students. So, to compare traditional and modern teaching methods, a conclusion is drawn that focuses on comparing lectures and computer guidance (Hashim, 2018). Hence, it is deduced that both methods are effective because it depends on how they are used. However, some major differences exist between using educational technology and traditional teaching, but when the computers are tailored according to the abilities of students individually, there can be an important role that can be played in teaching (Chowdhary, 2019).

Thus, using educational technology in teaching can help in classrooms and curricula. However, there are challenges related to the use of educational technology in teaching, which can be resolved with time and awareness (Chowdhary, 2019). Educational technology is the new propaganda of the world and is quickly growing in acceptance all over the world. Normally known as EdTech, it can be clearly as the mixture of education and technology. This describes the part and possibility of educational technology in advanced education organizations and the important skills that will disturb education in 2020.

Today, the outbreak of the enforced global lockdown since March 2020 is still flourishing and the world is quiet in confusion. National lockdowns have required the temporary closure of educational institutions, affecting approximately 1.6 billion students in addition to 190 republics and landforms. This, in chance, has had a major influence on the education sector, important to several growth trends in the ed-tech industry. For example, countries that were first affected by the disease, such as China, Italy, and South Korea, have moved quickly to provisional home education through educational gear and online stages. A discussion of the main technological leanings that interrupt education must initiate with a clarification of the occurrence of educational technology.

Over the years, the definition of modern educational technology has evolved with changes in how it addresses education procedures, theoretical frameworks, theory, and exercise, and with recent research and right applied to address technological procedures and capital. The field of educational technology as a theoretical field is relatively new, and there is much debate about how to clearly define the field. In short, EdTech can be defined as the joint use of hardware and software, pedagogy and exercise to

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