

Myth and Reality of Online Tools in Education

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Abstract

The internet era makes it difficult to imagine any aspect of contemporary society without technology. The outbreak of COVID 19 made the situation even more severe and created a drastic change in many fields of the country. As the World Health Organization has declared COVID 19 as a pandemic, mandatory shut down of educational institutions modified traditional classrooms into digital platforms to keep education going. The schools and colleges had to change the pedagogy halfway through the curriculum and prepare the students to face their exams by the end of the academic year. This situation made the teachers and students confront a sudden shift in the mode of the teaching-learning process. Academic institutions, which followed the traditional chalk and talk (Face to face) method for decades, are totally abandoned and shifted to online teaching pedagogy. In this situation, online technological tools stood as a propitious aide to help them. This paper discusses the role of Edtech in education during the pandemic, its strength, weakness, and challenges faced by students.

Keywords: Edtech tools, pedagogy, Edtech, online teaching, online learning, technology.

Introduction

COVID 19 led billions of students worldwide deprived of going to schools and colleges because of the lockdown insisted by the government to control the spread of coronavirus. This pandemic made the task of getting students into the classroom more complex than educating them. The teachers should confirm various safety aspects among students like social distance, physical health, nutrition, proper sanitation, etc. Since it was impossible for the teachers to monitor those aspects, the online teaching and learning approach is considered a safe solution to ensure health and education simultaneously. “Several arguments are associated with e-learning. Accessibility,

affordability, flexibility, learning pedagogy, life-long learning, and policy are some of the arguments related to online pedagogy. It is said that online mode of learning is easily accessible and can even reach to rural and remote areas.” (Dhawan, 2020)

Innovative technology and Edtech tools create brilliant ways for the teachers to deliver the content and monitor the students in the online platform. As the online teaching atmosphere is new for many students, Edtech tools provide ease in the teaching-learning process with more study materials and room for interaction with other students. Modern educational tools like EDMODO, Class craft, Seesaw, YouTube, Whiteboard, Adobe spark video, Google classroom, Nearpod, etc., stimulate the creativity, critical thinking, and problem-solving skills of the students and accentuate education in a fruitful way.

Due to the advancement of modern technology and the fast-paced world, online learning and Edtech tools gained more significance in the field of education and their importance thrives day by day. The year 2020 witnessed that online learning and Edtech tools play vital role in the education sector, and it is widely accepted by the people. This led to heavy competition in the Edtech start-up sector and resulted in high-quality study materials. Some of the leading Edtech start-ups like Talentedge, Eruditus, Vedantu, Byjus, etc., aim to replicate the traditional classroom with the digital world and provide out-come-based education to the students. The content and the study materials are designed with the objective to satisfy the need of the learners at different grade levels from kindergarten to university.

Edtech: Need of the Hour

The closure of schools and colleges raised many questions in the mind of educators, parents, and students regarding the continuance of education and pedagogy. Technology and e-learning stood as an obstinate answer to those questions. The sway of technology over education is expected to be increased over the past few decades. The outbreak of COVID19 fosters technology-based education to bridge the gap between expectation and demand. Schools and Universities adapted themselves to digitalized teaching processes to combat the situation and provide quality education to the students. Technology remains the only source to recover education from the negative impact created by COVID19. Since a major part of the country was in quarantine the government, academicians, and educational institutions prioritized to online mode of education and sought the support of Edtech tools to continue the process of teaching and learning during the lockdown. This created the year 2020 as a great transition period for schools and colleges to rely completely on technology in the teaching-learning process at all levels.

Though Edtech tools are easily accessible, institutions need to conduct many professional development programs to enhance the educators to master these tools to make the teaching process effective. Online mode of teaching is also considered as a parameter in defining the quality of the

education, so the organizations have adapted it to maintain their market condition and withstand the quandary.

Advantages in Embracing Edtech Tools in Education

The fundamental structure of the teaching-learning process which was adhered to for centuries underwent a breakthrough by integrating technology and attained significant improvement in productivity at the end of the process. Edtech tools redefine the teaching and learning process and reveal new insights in adapting digital platform which provides visualization and presentation that enables the students to educate themselves at their own pace. Self-exploration of the wide range of online tools and resources helps them to find the answer to their questions at different levels. Edtech tools destroy the limitation created by textbooks and traditional classrooms. Simultaneously, they transform the teaching and learning platforms into discussion forums. Innovative education startups impart the responsibility of the teachers in their academic roles like lesson plans, worksheets, recording of attendance, assessment, etc. and they also aim to train the students for vocational and corporate sectors. “Startups in this sector have rolled out offerings such as personalized assessments, VR content, parent engagement, gamification, soft skills development, digital libraries, student networking, test preparation, procurement marketplaces, learning analytics, language tools, internship location, and real-time scenario engagement.”(Y.S Team, 2018). Edtech tools open doors for newly upgraded pedagogy and make the students cultivate the habit of structuring their own learning habits. “Empowered by Artificial Intelligence, these systems can also observe how students learn. Besides, they can discover what kind of tasks and thinking interests them the most, and what kind of problems they find boring or difficult. These systems can then adapt the learning process to accommodate individual students’ learning styles. And, most important of all, they can do this with much more precision than any traditional classroom setting could ever achieve” (Janssen, 2021) Another major advantage of Edtech tools is going paperless. By exploiting online resources like the internet, mobile applications, and software both teachers and students can save time and money by recording the details and files on online or electronic devices. The process of teaching and learning can be done 24X7 without being physically present. Interaction, discussion, and guidance can be made in-classroom and in-home with the advanced and well-designed tools in the digital platform.

Drawbacks of Adapting Edtech Tools

Self-motivation is the most important factor that every learner should possess in the context of online education. Students should be committed to their goals and able to work without the influence of other people. Though Edtech tools engage the students with videos, animations, and other features to gain the attention of the students, they lag in providing practical education to the students. Startups and Edtech tools cannot meet all the needs in the teaching-learning process. They are limited to certain disciplines where theory and practice are given equal importance.

Another biggest disadvantage of using Edtech tools is distraction. As the internet is the social medium of communication advertisements and other pop-ups distract the users and deviate them. The availability of lecture notes, resources, and lessons tempts the students to procrastinate their work. The prevalent availability of resources and recorded lectures on the internet makes the students take advantage of the situation and postpone their work. Accessing the internet and electronic gadgets is another challenging factor in online platforms. Limitation of bandwidth or internet access may be limited to some students, which prohibits them from participating in live sessions for the whole day. Prolonged usage of gadgets for hours can create some technical issues and cause interruption when attending class or doing assignments. Indolent students may pretend as if they have technical issues, or the device got hung to skip classes and exams.

The curriculum is framed with the objective of improving the knowledge and skills of the students. Assessments are widely accepted as the only mode to test the level of achievement. But academic integrity remains a big question mark in the online platform. Online exams cannot be completely relied on to determine the ability or knowledge of the students. Edtech tools focus on the theoretical approach to teaching, with the help of podcasts, videos, and slide presentations. Students can observe and understand the concepts, but the practical approach or hands-on experience is not possible through e-learning. The Digital generation who grew up with technology is more proficient in using the Edtech tools and they develop an attitude towards their teachers who are new to accessing technology in the classroom. In case of any technical issues or inability to access the tools in the classroom, then the teacher has to cut a sorry figure in front of the students. Edtech tools require the students to spend hours together in front of a monitor or tablet in the whole process of teaching and learning. Continuous exposure to gadgets, sitting posture, and other psychological factors affect the users physically and mentally.

Challenges Faced in the Implementation of Edtech Tools

Integrating Edtech inside the classroom affects the psychological aspects of both teachers and students. The prevalent availability of new technological tools does not guarantee effective teaching pedagogy. The teachers have to build proficient technological knowledge in order to use them confidentially inside the classroom. Digital technology with its designed hardware and software supports the teachers to get the desired course outcome but involves lifelong learning. In relation to the use of mobile technology in international development, many ICT-based education projects still have a narrow focus on hardware and software. “Educational research shows that resource-based interventions alone have limited impact on student learning, and that technology itself does not add value to education.” (Haßler. B, 2016).

Incorporating digital media and education stipulates a number of inter-disciplinary skills and a deeper understanding of the complex intricacies between technology and pedagogy in the task of blending face-to-face approach with Edtech tools. Inconsistency in gadgets and inability to

use the tools properly may lead to technical errors or if the teacher is not able to access the tool effectively in the classroom, then it leads to embarrassment. Extensive care should be taken when designing the framework of the course to various core subjects, assignments, and assessments.

The wide variety of online resources leads the educators to take up the moral responsibility to check the credibility of the resources on the internet, which may be fallible and may muddle the learners from understanding the concepts. The educators have to analyze and synthesize the authentic materials collected from the internet and produce them for the students in a comprehensible way. Using gadgets and applications in regular life is totally different from exploring the modules and features in software applications. People who are accustomed to regular usage of software and apps can make elegant access to applications. Others may find it difficult to use the application till they become used to it. The structure of the internet and media is not a complete safe zone for the students to access seamlessly. Awareness should be created among the students about the jeopardy of sharing personal information with unknown apps.

Suggestions to Increase Acceptance of Edtech Tools

In an online platform, unethical practices in assessments and assignments are quite common. Educators can use multiple ways for conducting the assessments like live online quizzes. Questions can be randomized with a short duration to avoid plagiarism. The online platform allows to access ample software to check the plagiarism of assignments. Apt software which serves their need can be used to control plagiarism.

Distance education or e-learning does not provide the same experience to everyone. It differs from every individual on various conditions like bandwidth, gadgets, etc. Limited bandwidth or internet connectivity deprives the students to attend live sessions throughout the day and those students may tend to lose their classes. In such cases, educators can provide, recorded videos of live lectures to those students. So that, they may get added chance to listen to the lecture and write up the important points from the lecture to overcome the limitations. The monotonous role of the students and teachers in the teaching-learning process may lead to tediousness. Engaging in polling, live quizzes, comments, chatbot, etc. during the lecture will make the class hours more interactive and interesting on the online platform.

Technologies like Facebook, blogs, email, etc. can be employed for the tasks of assignment and assessment to encourage the students to wallow in the ocean of the internet to explore knowledge and also to evade monotony. “Implementing hands-on student projects in conjunction with 1:1 mentorship are some of the most effective ways of developing practical skills in online students. There are several examples of successful practice-based online courses on platforms such as Udacity and Springboard.” (Sander, 2020)

Conclusion

The growth of technology and the use of the internet increase the demand for advancement in study materials and related sources. Technology and Edtech tools grab the attention of educators at all levels to prove them ahead of others by facilitating e-learning to make certain that they have the competence to educate their students at all circumstances. Most students are aware of the importance of e-learning and acquaint themselves with various Edtech tools, software, and applications to integrate technology into their learning process. Web-based learning module improves the independence and self-discipline among the students and motivates interaction with teachers as well as with other students in the virtual classroom. The consequence of COVID 19 made different impressions on different classes of people in the society, where some people with all advanced resources and gadgets have smooth conduct of classes, whereas on the other hand people from rural areas or remote places lack network connectivity, proper gadgets, and struggle to pursue their education. The objective of educators and students may be the same, but certain factors like network coverage, affordability over advanced gadgets, cost of applications, etc. impede the students and teachers to move forward to achieve their goals.

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