

Technology based education: A Nostrum during Covid 19 Pandemic

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Abstract- *The objective of this paper is to understand the purpose of technology based education. The paper also discusses the problems associated with technology based learning. An educational institution in India is primarily based only on traditional pedagogy of teaching and learning. They follow the traditional set up of face-to-face lectures in a classroom. But many academic institutions have initiated blended form of learning. If we observe the current status lot of them are still continuing with the old procedures. The sudden outbreak CORONA VIRUS has brought the entire world to a standstill situation. It has been declared as pandemic by the WHO. The education system is also adversely affected by this crisis and is facing lot of challenges. This situation has forced the education platform to opt the online mode of teaching. Earlier the academic institutions that were rigid to change their traditional pattern of teaching are forced to make a shift to the online pattern of teaching. This paper deals with the relevance of technology based education and includes the suggestions on how to tackle the challenge.*

Keywords: Technology, Education, Teaching - Learning, Pedagogy.

I. INTRODUCTION

The disastrous infectious Coronavirus caused Covid-19 pandemic. It has deeply affected the entire economy of the world. The pandemic disaster also not left education sector unaffected. The educational institutes have gone for a complete lockdown which also kept continued during the post lockdown phase. The academicians are in a fear as to how the academic session will be continued this pandemic year. Many researchers have expressed their concern that it looks uncertain to get back the person to person teaching any time sooner. The constraint of social distancing is a hindrance and creating a negative impact on the entire teaching fraternity. All the educational institutions are trying to find alternatives to face this unusual circumstance. This makes us realize that there is an immediate requirement concrete planning to face this challenge.

Many arguments have been set forth with electronic learning. The Adoptability, affordability, learning pedagogy and policy are some of the arguments related to online methodology. It presumed that online learning platform is easily reachable and accessible to each and every one. It is considered to be flexible as the learner can plan the course completion time as per their own convenience. The online method of learning is cost friendly as it lowers the transportation cost and other institutional cost also. Moreover, the blended form of learning raises the quality of teaching learning process. The Government is

also now realizing the impact and effectiveness of technology based education in this fast changing scenario. This land we to the thought that due to Covid 19 can technology based learning provide us with some remedy so that we all can face this crisis with a new zeal and land up to new horizons even during this pandemic phase.

II. OBJECTIVE OF THE STUDY

- (a) To study the necessity of technology based education.
- (b) To study the problems associated with technology based education.

III. REVIEW OF LITERATURE

Kasinathan et al. [1] examined the potential impact of AI on educational processes and outcomes. It examines key explores concerns with respect to rights-based development that AI policy and programming frameworks should address to support ethical, inclusive and universal education in India.

V. J., & Srikanth R. [2] studied that the ubiquitous technologies have a great potential to enrich students' academic experience. Students are more interested in using interactive learning techniques apart from the traditional learning techniques. The study proposes a modified UTAUT2 (unified theory of acceptance and use of technology) model with nine core independent determinants predicting the tenth dependent variables construct. The study aimed at developing a new model that encompasses the factors affecting the utilization of ubiquitous technology among students in institutes of higher education, particularly in India.

Guma et al. [3] The role of ICT to make teaching-learning effective in higher institutions of learning in Uganda in their study analyzed. This empirical study aimed at finding out the factors influencing use of ICT to make teaching learning effective in higher institutions of learning in Uganda and identifying the innovations that ICT has brought into teaching-learning process, particularly in higher institutions of learning in Uganda. A survey was employed and in order to empirically investigate the study. The findings of this study revealed that teaching staff and administrators had a strong desire to integrate ICT into teaching-learning processes.

Tutkumet al. [4] studied on Internet Access, Use and Sharing Levels among Students during the Teaching-Learning Process.

The purpose of this study was to determine the awareness among students and levels regarding student

access, use, and knowledge sharing during the teaching-learning process. The following results were obtained:

- (a) Instances of knowledge access, use and sharing by students during the teaching-learning process rank high.
- (b) Female students use the internet in a more functional sense than males.
- (c) The levels of students accessing, using, and sharing knowledge during the teaching-learning process differ.
- (d) Internet access, use, and knowledge sharing levels vary between academic departments.
- (e) Internet access, use and knowledge sharing levels differentiate according to type of education.
- (f) The opinions of faculty members and students overlap regarding the level of accessing knowledge via the internet, but differ on the subject of use and knowledge sharing.

IV. TECHNOLOGY DRIVEN TEACHING IS NECESSITY AND NOT AN ALTERNATIVE

People resist change without understanding the need and importance of it and when a situation arises all should adapt to change willingly and unwillingly. This was the situation which occurred to teaching fraternity too. Indian higher education institution has used various pedagogy for innovation, development, and engagement of students. Many faculties have resisted the change when they had been asked to take virtual classes for students [5-7]. The world has been going through a quarantine phase due to the outbreak of COVID 19. Therefore, many places have become a hub and the impact of which can be very well seen in the educational institutes. Amongst all this blended learning and online learning has proved to be remedy during this pandemic. COVID 19 has made the shift from traditional learning to online mode of learning. It has also changed the rigid mindset of the educational institute who were otherwise reluctant to learn the modern form of technology. This transition will surely upgrade the standards of the Indian teaching learning process. The online platform gives us an edge over to connect with large number of students anytime anywhere. It is expected from all the educational institutes to use technology driven classes and also to access it more aptly. There is a sudden boom in the online teaching learning platform and many universities have fully gone for automation. The technology based education has become the need of the hour even in this chaotic situation. Hence quality up gradation has become very important at this stage. Change has become the necessity and this change will only help the educational institutes to grow and develop during this tough time. How the institutes are adopting the new change will become the judgment parameter for the educational institutes. This will also compel them to maintain high degree of quality and also to maintain this quality. The credibility of the educational institutes is on stake. Only time will decide this

and also how well they are engrained in adopting the changes. Because at this moment of time a shift from traditional platform to online platform is the only available alternative for us. But yes it's going to be a big challenge for the educational institute as it would not be possible to transform their entire curriculum into technology driven curriculum overnight. As reach and imparting personalized education will be the biggest challenge. Adoptable and innovative solutions can only be the probable help to overcome this crisis situation.

V. TECHNOLOGY BASED LEARNING AND ITS IMPACTFUL PRACTICE

There is no doubt that technology driven education was existent since very long but the COVID 19 pandemic has given it new dimensions to grow and flourish. The fact cannot be denied that conceptualizing online teaching and learning has become the need of the hour. There have been many studies done in the past few years and moreover in the past few months during this pandemic period. Students are more interested in using interactive learning techniques apart from the traditional learning techniques. Several research studies for m-learning have been done in the USA, UK concentrating on students undergoing a graduation degree, especially subjects like engineering, arts, maths, science, etc. Hence the need has arisen to conduct a separate research on m-learning in the Indian context [2].

When thought upon as to why online education has become so important in a study done by Moore and Kearsley (2012, page no.8) highlighted the following reasons: -

- (a) Providing opportunities for upgrading the skills of the workforce.
- (b) Increase the access to learning and training as a matter of equity.
- (c) Improving the effectiveness of cost of the educational resources.
- (d) Improving the quality of the existing educational structure.
- (e) Balancing the inequalities between the age groups.
- (f) Enhancing the capacity of the educational institutes.
- (g) Expanding the new subject areas.
- (h) Problems Associated with Online Teaching and Learning

There are numerous technologies available for online education but at times they create a lot of difficulties for us. These problems are related with modern technology ranging from errors in downloading, installation issue, login problems, audio and video problem, and so on. At times this teaching platform also becomes monotonous for the students. Because of too much flexibility the common excuse that we here form the students is that that they have time to do it. Lack of concentration and attention is also a major hindrance. The teaching learning process is impactful only when there is direct two ways communication which at time is difficult in online teaching. The teaching cannot

reach to its fullest until the students practically practice what they have learnt. Because at times the content through online teaching is completely theoretical which does not let the students mind to create an impactful perception? Average course content is also a matter of concern in many parts of the country and in many universities. Lack of preparedness for the type of online platform being used is another major matter of concern that restricts to impart quality education in many parts of the country.

VI. CONCLUSION AND SUGGESTIONS

It is a known fact that lot many issues are associated in online teaching learning process but there also is another fact that its benefits cannot be overlooked especially during this pandemic time. If there is a problem there has to be a solution for it also, we all know this. What is required is the effort to be put in. Examining the key concerns with respect to rights-based development that AI policy and programming frameworks should address to support ethical, inclusive and universal education in India [1]. When teaching through online platform there should always be a backup plan ready so that the teaching learning process is uninterrupted. It is required that methods of online teaching should be more attractive and interactive. The effective integration of this technology into classroom practices poses a challenge to teachers and administrators that teaching staff and administrators had a strong desire to integrate ICT into teaching-learning processes. The innovations that ICT has brought in teaching learning process include: E-learning, e-communication, quick access to information, online student registration, online advertisement, reduced burden of keeping hardcopy, networking with resourceful persons, etc. However, the presence of all these factors increased the chance of excellent integration of ICT in teaching-learning process. Therefore, the training of teaching staff in the pedagogical issues and administrators in administration should be increased if teachers and administrators are to be convinced of the value of using ICT in their teaching-learning process and administration [3]. The technical hindrances can be resolved by way of pretesting the class; prior recording of the lecture to be delivered can be done. As far as possible personalized contact should established with the students. Different social media platforms can be used for communication as the modern age students are very much acquainted to it. Because it is said that communication is the only remedy when things are tough to handle. The learning material provided by the teachers should have a practical approach so the students can do their own self-study and also improve their skills.

For all this the teaching fraternity is also required to spend quality time in exploring the new avenues of technology based teaching. The use of technology in educational context would be effective only if content, pedagogy and technology are aligned carefully. It is

strongly recommended for restructuring curriculum of teacher training programs should also be included [8]. It implies that for teachers to use technology in their teaching, they need to be competent in all three domains. The educationalist should also try to research new and modern forms of technology. They are not only required to find this but also are expected to think on how to redefine the educational practices so that ultimately the students can be benefited the most.

Covid 19 has taught us that disasters can hit us anytime and that to a natural disaster like this completely changes all the dimensions of the mankind. But yes, some disasters also give us a strong sense of motivation to bring some innovative changes in one. The same has happened this time. We all have moved a step ahead in adopting technological advancement. The educational sector has used this technological advancement hand to hand. Because of this we are able stay connected with our students through the various online platforms. In order to make the electronic means of learning more specific and effective there is a need to concentrate more on the adoptability and acceptability of technology. The implementation of any kind of technology based education there should be proper research done on its merits and demerits. The need and requirement of all educational institutes differ from each other. Hence, there should be a conceptual adoption of the right technology. Teaching through modern technology sounds very impressive but it has its own demerits. So there is a serious need to assess the pros and cons of technology based learning. Natural calamity like Covid 19 popularly known as Coronavirus has brought the entire nation to a standstill with lot of insecurities and uncertainties in everybody's mind. So, it can be very well assessed that there is an immediate need to accept technology, keeping and maintaining a balance between the uncertainties and certainties. I would like to conclude by saying that this paper is nowhere creating any hike in the online teaching platforms. My intension was only to set forth the drastic change which the entire education fraternity is going through in terms of imparting technology based education. A great job is being done by the teaching fraternity and we should be proud to be a part of this noble profession which is surely a selfless service to mankind.

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