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Footprints of Educational Technology in Higher Education

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Abstract

Education is a powerful weapon which prepares the individual to face the difficulties of life, come out of poverty fear, and help to achieve status in society. At present scenario, continuous learning and updating is very essential for everyone. As per the frequent changes in technology people also should learn continuously. Maximum members of present generation are stepping into the higher education and are growing fast due to the availability of plenty of learning resources outside the classroom. Education becomes more global by the help of internet and technological devices, applications used by the institutions, teachers and the students are really appreciable in making each and every one smart enough to lead the life in modern era. To reach the fullest potential we should encourage the use of Technology in present education. In this paper author made an attempt of analysing overall outcome of technology in education fields.

Keywords: Higher education, technology, devices, educational institutions, teachers, students.

1. Introduction

Education is one of the constitutional rights of every citizen. Education prepares an individual to play his/her role as a sophisticated member of society [1].Olden day's education system was restricted into the four walls of schools, colleges or Universities. Few years back learning meant for taking degrees for becoming graduate. Then additional learning meant only for teaching faculties. Now Trend has been changed. Higher education became whole and soul to lead satisfactory life in the digital world. An individual should learn throughout life in one or other way in the society [2]. The modern technologies are helping the people to learn new things and acquire knowledge by the help of teachers in the initial stages. Later on, the pupil can operate the system by the basic inputs. In traditional method of education system, students will gather under a roof at a specific time and place, where teachers teach, peer discusses and interact to clear doubts in the classroom. Gaining knowledge by the listener depends on knowledge level of instructor [3]. In 21st century, student's entry to classroom is entirely different from earlier. For the present generation and digital world, updated educational technologies are seems important to give timely balanced education. Technology based classrooms were attracted by students more and teachers also started approaching the students with modern technologies so that interests of pupils can be increased by enhancing new knowledge. Improvement of technology provides the facility to bring education in new framework. This framework recognised as E- learning, it is used as a potential by different educational institutions of India [2].

2. Technology over Traditional system

System of education has changed completely due to the entry of technology in-between the traditional education method. Writing in blackboard, drawing pictures are the methods of traditional classrooms. But now a day's gathering knowledge system has been changed. To gain knowledge, to get answers, we depends internet and other technological sources. Currently the

traditional way of education we could find very rarely and that itself becoming fashion of institution; and modern generation people use to visit such educational institutions by searching through different ways. The elders of recent years are happy to see such institutions. Knowledge of our elders those who studied under the traditional system of education are really very deep. Along with the overall knowledge they were well versed by the values. They are having good memory power compare to modern generation and their ability of solving problems is entirely different. The way of teaching in traditional system of education is adorable by all means. Healthy teaching area, real teaching aids, flexible curriculum, values, activities along with the studies, friendly natured teachers like parents were the major things under the traditional structure of system. Theory, practical lessons, value based education; training taught by the teachers in an understanding way is very helpful throughout the life. Educational technologies are very significant in present world which is a self motivating system through online learning. The internet is part and parcel of educational system. Internet facility will be used by both teachers and students [4]. Every student acquires knowledge or collects the information through the internet web. People are used to modernization. The modern generation likes technology based system of education rather traditional method. They wanted work to be done easily with in short period of time. Education technology brings much flexibility in the classroom. Educational institutions find different types of hardware and software, which helpful to the students [5]. In addition with different age group, different nationality and different professionals can come together to gain knowledge through educational technologies. Indian educational institutions including universities are using educational technology. Online education has taken centre stage in United State, Canada and Europe. In India these efforts are still going on. Currently this system is used by adults only [6]. Online education is expensive compared to traditional method. In technology-based education concepts can be taught easily within the less time, less energy will be utilised by facilitator and where as in traditional based education system concepts will take up time to complete and more physical

instructions required. So, use of technology and along with the traditional learning will give great benefit to both teachers and students it means technology cannot replace the traditional methods but can complement them. Almost all the lessons can be well explained by the use technology and some lessons may need the physical instructions [5]. But traditional education system requires continuous physical instructions and presence of teacher.

2.1. Importance of Higher Education

Carrier and financial security can be attained by higher education. 21st century provides more chances to improve the quality of life. Higher education provides good economic condition, health, civic involvement, personal development, better communication, and realisation of passions, greater sense of discipline and also sense of accumulation. It makes to understand subjects, think analytically and display ideas of an individual effectively. It provides needed security and keeps the life of a citizen in a society in a better place [7].Higher education helps to exhibit extracurricular talents. It will help to gain high skill, intellectual development and follow the passion [8] Use of Technology make easy to use education resources; it improves the learning experience, helps for self -learning, and helps to prepare for their carrier [9]. Students pursuing Higher education have their own responsibilities, so due to these different commitments they don't have time to attend traditional classes. Higher education is one of the massive industries which are efficiently positioned to manage the appreciable benefits from digital transformation to provide healthy service [10].

2.2.Impact of educational technology on modern generation

Educational technology has become integral part of our daily life. Students will get countless online resources and involve them in learning process. In the contemporary pandemic condition, educational technologies are playing a vital role. The percentage of utilisation of technologies by the students and teachers rose rapidly by the online education tools because, of genuine reason and to balance the academic curriculum. By the use of technological devices, most of the pupils are not interested towards the traditional methods of education. The devices like smart phone, iPod,

laptop, desktop and tablet computers and many more are captivating the youngsters, and people are using the devices for other than education purposes. That will lead to divert their minds and devices will be used most for unnecessary activities or unwanted way. The devices itself give the guidelines of operating it, so it doesn't require any teacher. Younger generation is very fast in using the technological devices but less for good sake. Applications of devices changing the track of pupils and so many examples we could find in the different media. Devices made the people to be lazy, rusted, and busy with devices, depend, addict and stick on to it. The condition of most people is like without devices they can't lead life. They forgot maximum relations, lost the connectivity between the surroundings, less concentration on health, became arrogant and many more impacts we can observe. There are so many things to learn and to know from the device from the place we are, the important thing is to use the devices in a proper way. Without the educational technologies we could have not overcome from the academic educational drawbacks during the COVID-19 pandemic situation. In fact the educational techniques are much more welfare to the people those who strive for knowledge. People found online system of education is best and safe in this time. If the utilisation of devices is done in a best way, people can improve, develop self and get the maximum benefits of devices in positive way.

3. Quality of Education due to Technology

The goal of educational technologies is to improve the student's performance. It is systematic application of technological process and resource for teaching. It identified the needs of the students, instruct and track the student's performance [11]. There is continues evolution of E-learning educational technology and inspiring teachers and students. So, it's quite that advancement in technology to enter the game changing opportunities in the world of Education. Technology enriches both students and teachers. Educational technology improves the communication of knowledge, its development and exchange. Role of the teachers are very significant where they inspire the students to use the educational technology in worthy way. New technology is utilized to develop and apply new educational approaches for learning and for the

achievements of students. Education technology helps the students in different angles. It enlarges the chances; it collaborate offline and online classes as a new strategy [12]. Now a day's mobile become a primary device to connect the people of the globe. Mobile phone used as a tool connected between teachers, students and parents from anywhere, anytime and makes the learning more collaborative and effective. Universities are using data to improve the results. Universities are using big data to reach the competitive advantage with the advanced technology. The government is also working and supporting to bring the advance in educational technology. Hearing classes and gaining knowledge through the audio-video classes are more preferred by students. By the use of technology blended programs will be conducted. More universities are using educational technology to improve the quality of the students and faculty [13]. Remote area students also felt comfortable with the online classes. Raise of MOOC (Massive Open Online Courses) from a decade was in moderate level, but in this pandemic it becomes very significant [14]. College level students will have certain technical skills. They will be well versed in computer aspects. Learning management will make them to be more skilful. This helps them to be well equipped in future. Web based learning providing fair learning platform to undergraduate students. Learning ability, problem solving skills, comprehensive abilities are developed by E-learning. E-learning enables the students repeated learning and improves the quality [2].

4. Major changes observed in Educational institutions by adopting Technology

Educational technology improves the relation between teachers and students. There are no limitations to technology [15]. Modern technology enables the students to take the responsibility of their education. Present world is a competitive one, so the educational technology is significant to stay in this competitive world. Use of Technology in education reduces the learning expenditure also and helps for the further increase the academic performance. Today's technological world expects the students, parents, teachers to accept the digital learning experiences [16]. From the past two decades, education landscape has been indirectly altered by technological innovation. Revolutionary advances of information and communication

technology brought renaissances in education technology. Government, schools, colleges, universities, parents and students highly appreciate the educational technology as a main part of the education procedure and move accordingly. In recent years, big data, artificial intelligence are influencing more and expanding the technology further in education field and speeding the learning process. These technologies increase the potentials and expanding the quality of Education. The educational technology helps the students to get degrees even though they constrained by work, families and disabilities to seek higher education [17].

4.1 Challenges faced by the remote areas due to technological education system

Rural area students and teachers face many problems to use of technology. The problem includes poverty to buy the devices, electricity, network issues, connectivity complications, expensive data packs, and device problems, less service centre, digital, infrastructures and also lack of trained teachers. In fact it's not because of availability of well trained teachers; rather most of knowledgeable, trained teachers are not ready to be in remote area by thinking their self development and improvement by all means. Educational institutes in Remote area also have the finance problem to adopt the educational technology. Even if the institutes posses educational technology facility, there will be an electricity and internet problem [18].Underdeveloped countries have its own problems in providing high speed internet facility.

As there is no practice, fluency in the language and lack of awareness of educational technologies, most of the time pupils of remote area were finding difficult to manage with classes and they not feel comfortable about the online classes. But each and every corner of India was adjustable fairly to handle the changes in education system due to the COVID-19 pandemic. Regional students found tough to adjust for the fastness of the online teaching [6]. Many students have problem of having personal phone or laptop or computer system. Lower income household children cannot get benefits of Education technology equally.

4.2 Considerable facts of Technology in Education field

The winds of change that span the current academic sphere are usual. In present day, students step into college with their own wish. They are like to do job as part time and study or studying online. They like to use their own devices even they study in online or offline. The sheer miscellaneous of apparatus they bring to the campus will demoralise. In order to meet all the needs of the students, college management tries to arrange proper infrastructures. Collaborative work of private and Public sector helps to arrange the good infrastructure facilities. Almost educational institutions provide the environment to use college devices for the study purposes. Mobilization of digital learning is the needy of present situation. Virtualization is the current issue all over the world. Virtualization will provide the college resources as it is. Many Indian universities suggest digitalisation very significant issues. Updated digital transformation keeps the educational institutions very relevant. Investment on virtualization can create educational revolution and equality in India [19]. Power of educational Technology, digital media and quality of learning resources are the virtual classroom solutions. Social media also contributed a lot. National employability report says that Indian education sector have witnessed for its major growth. India is having a large population and having second largest graduating India [20]. In the current scenario educational institutions are in umlauting to find the valid amalgamation of students, faculties, protocols and system to discharge their academic programs. Learning management system (LMS) are becoming an interface for managing study area, for instructing students, providing curricular activities, co -curricular activities to run the administration smoothly and generation of reports. By the use of educational technologies one can acquire the knowledge through E-learning. E-learning helps to collect sources related to education, administration easily and re-uses it multiple times. This process helps the students and teachers outside the classroom and to use it anytime. LMS help the students to gain more knowledge and it will speed up the quality of knowledge compare to traditional classes [2]. Online educational tools used for different purposes. Online classes combine all activities to provide and overall good outcome. To improve the

technical education, online tool used in Indian education system [6]. One -to -one technology introduced in many developed countries. Under one -to-one program all grade level students at class, school and district level provided computer for the use through the school day and some cases at home also. One laptop per child (OLPC) program in a developing country empowers every school age child. In 1997 USA introduced education technology program known E-rate which connected maximum students of the country. By the 2018 with the high- speed broadband education technology, 99% of college students benefited. The distribution of computers to the low-income students used more effectively from store this program benefit benefited to the minorities, woman, lower income students and younger students [17].

Conclusion

Life of ignorant and illiterate will make us to understand the significance of education. Education increases the confidence and give chance to use more opportunities. Education develops a good citizen; good citizen can build better life, better society and a better World. Higher education is open more paths to mould a better life of an individual. The globalization brought the countries very close and world called as a Global village. In present world adoption of Educational Technology is very significant, specifically in higher education. Under developed countries find a little difficult to move along with developed countries as they have internal problems to adopt educational technology universally. Educational technologies are helping all the teachers and learners to improve their skill and enhance their knowledge. Only thing is all have to utilise it in a better way and healthy way. Government already facilitated and is planning to fulfil the requirements of educational institutions under it. And also all universities are supporting and helping to the students to continue education beyond the classroom. In India National Education Policy-2020 also concentrates on digital learning. However, technology cannot replace the teachers but it can save time. Virtual learning cannot recreate the student- teacher relationship. But it is a method of evolution of older technique. Modern technology improved the student teacher interaction, increased the efficiency, inspire the more learning, reduced the assessment burden and maximised learning time. It also increased access to resources, increased the confidence, improved pupils behaviour. But this is not fully replaced the traditional classroom teaching.

Acknowledgement

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