Digital Education: Opportunities and Threats

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Abstract: *This paper deals with the benefits, trends, developments and opportunities of the digitalization of education and problems arises due to the use of innovations or technology in education. On the more splendid side, by the utilization of innovation in instruction, the educating learning process turns out to be smooth and successful. It decreases the expense of training. The digitalization of training breaks the hindrances of time and separation. In the troublesome season of the COVID19 pandemic, innovation encourages the smooth going of the educating learning process. Innovation in instruction is extremely valuable for understudies, educators, executives, the board, and guardians. On the hazier side, in light of innovation understudies are experiencing numerous physical and mental or psychological issues. In this manner, appropriate rules ought to be given by the service of training to the foundations for the utilization of innovation. The blended methodology ought to be embraced, which is a blend of the advanced instruction framework and the customary training framework.*

***Key words: - digital, education, technology, teaching-learning, psychological problems*.**

1. INTRODUCTION

Digital education become a very common term in these days. Due to COVID19 pandemic, all educational institutions are shut off and the only way of teaching is the online teaching. Therefore, everybody is familiar with this term. Let us analyse this term; digital means technology and electronic devices and education as defined by Mahatma Gandhi, "all-round drawing out of the best in child and man—body, mind, and spirit." Hence, we can define digital education as the process of all round development of a child by the use of technology and electronic devices. It provides opportunities for both educational institutions and students. It is helping the institutions to increase the enrolment and revenue. On the other hand, students are very much satisfied due to its flexible nature. Audio video effects, gamification and animation in the teaching learning process making it smooth and interesting. Digital education is dynamic in nature. It is a continuously growing concept. It is changing the way of students to understand the concepts and theories in educational institutions. Digital education has three components; a) content, b) technology platform and c) delivery infrastructure.

2. BENEFITS OF DIGITAL EDUCATION(GUPTA, 2017)

The digital education has the following benefits for students and educational institutions;

1. It saved both time and money
2. Online exams are easy to conduct
3. Transfer of knowledge from teacher to students is easy and equal
4. Audio visual teaching content helps the students to understand the concepts and create interest in study

5. Preferences over different schools and universities which can't give such incorporated highlight based learning and the management system
6. It facilitates an easy communication between the educational institutions and parents of students
7. Students can easily trace important events related to their studies
8. Projects and assignments can be prepared online
9. Students can give exams online and view their results easily
10. Missed lectures can be recovered anytime
11. Online library can be assessable
12. Parents can easily trace the result, progress, attendance, time schedule etc. of their wards
13. Parents can check the syllabus, assignment and projects of the student
14. Exam schedule and result of semester is easily assessable by the parents
15. Parents can track the school events conveniently
16. Management of class time and content is easy for teacher
17. Teaching material can be download from the internet anytime
18. Difficult concepts can be taught easily
19. School or college activities can be managed easily by the school administrators
20. Administrators can easily assess the information regarding institution online and able to manage the institution even he/she on leave
21. Administrator can check the teaching process and progress of students
22. Assigning tasks to the staff members is easy for the administrators

Emerging trends of digital education

Technology brings the revolution in the ways of teaching learning process. Different instructional styles provided by the technology increase the engagement of the students in the classroom. Digitalized classrooms or flipped classrooms are the new trends in digital education era. In digitalized classrooms each and every student get instructions equally and easily which was not possible in the traditional education system. These classrooms make the learning process more interesting and effective. Another trend in this digital era is video based learning. Students can use different apps to learn the concepts and theories. Unlimited participation and open assess through internet is aimed in massive open online course (MOOC). High quality education can be facilitated through distant learning courses with the help of internet. Another emerging trend in digital education is game based learning. Game based learning is effective for the students from kindergarten to 12th standard. It helps the students to learn the new concepts trough games and this method spreading their roots in India very quickly (Lakshmi, 2016).

Development of digital education in India

India grasps a prominent place in the field of digital education. India is hub of education and after America only India putting a lot of efforts for the digitalization of education. Some of the important and concrete steps that have been taken up by India are as follows;

NIIT, which is known for developing skills planning for many online courses in different universities worldwide. Similarly, Byju's is another step for digitalization of education. Neev knowledge management Pvt. Ltd, using brand name EduPristine is providing many online courses. Intel Corporation is also planning to digitalization of the education in the country. Tata Trusts are also providing various online courses. Ignis Careers and SEED are giving school education at low cost through technology (Gupta, 2017).

3. DIGITAL EDUCATION; OPPORTUNITIES

During the COVID19 pandemic all the educational institutions has been started online teaching. Students, even from small towns with their smartphones are attending the regular classes of their respective courses. The schools, colleges and universities are using the various apps like zoom, Google Meet, skype etc. for online teaching(Review & Saxena, 2020). There are many benefits of digitalization of education.

Regularity in teaching:

There is a shortage of qualified and competent teachers in many developing countries. A research revealed that in many schools there was a shortage of teachers of mathematics and science in countries of south Asia and Africa. Teacher absenteeism is an important issue which directly effects the teaching learning process. Missing of teachers from school is responsible for low quality education. Technology is very helpful in the effective dissemination of education and helpful in the case of absence of teachers or less competent teachers. Technology in education is very useful for the education system of developing countries. As the internet connectivity is increasing in under developing countries, it becomes very easy dispersal of teaching instruction in the remote areas (Naik, Chitre, Bhalla, & Rajan, 2020).

Enhancement of learning outcomes:

Technology is a powerful tool which is helpful for enhancing the learning experience of students. Students are using computers for various purposes like problem-solving, browsing internet and self-paced learning. Students are free to explore the study material at their own. Use of technology greatly affects the learning outcomes of the students. The learning experience can be increased by the use of animation and videos. This type of learning is based on the principle that student can learn better with words and pictures than words alone. Students use their both audio and visual channels which results in permanent and effective learning (Naik et al., 2020).

Role of technology in higher education:

There is a positive effect of social media and technology on higher education of the students. It also affects the engagement of the students. Technology and use of social media in higher education makes the students capable to understand the problems and helpful in overall development (Gautam & Kumar Bahl, 2020).

Effects of technology and social media on mental health

A very prominent research explained that the various social media and technology is helpful in improving mental well-being of the students. Students with mental health issues are more comfortable with digital communication (O'Reilly, 2020).

Video: an important tool

In this digital era, especially in the time of COVID19 pandemic, the use of videos for giving the lectures and dissemination of the knowledge by the teacher is very important. A study revealed that video is an excellent tool for the active learning. A student learns better if his audio and visual sense organs are well stimulated. In video, teacher is able to stimulate both the sense organs of the students. Moreover, lecture delivered by videography is more convenient for the students. A student can learn according to their pace. According to his need, a student can rewind, pause or repeat the video (Lipomi, 2020).

Online collaborative learning

A well-managed online collaborative learning provides the opportunities to the students to connect their peers and a very potent tool for regulating their own and other's learning. Online collaborative learning is helpful in developing the skill to regulate collectively as a group. The study on online collaborative learning demonstrate significant for students, instructors, and parents both during this season of distant learning and past, supporting students to create viable systems for fruitful deep rooted learning(MacMahon, Leggett, & Carroll, 2020).

4. DIGITAL EDUCATION: THREAT

In the last few decades, technology greatly effects the business sector in the world but it has been also changed the whole scenario of the education system. In the present era of COVID19 pandemic, actual utility of the technology has come under the light. If today we can teach, it is only because of the technology.

Technology is very helpful in the spreading of knowledge by offering online courses and distance-learning schemes. It is a powerful tool to overcome the problems like low quality education, scarcity of teachers, distance and time constrains(Pegu, 2014). It completely transforms the teaching learning process. But there are so many problematic issues or threats with its utility and these are discussed below: -

Smartphones; A necessary evil

In the above section, we have discussed about the uses, benefits and opportunities of the technology in education. Now we are going to discuss the threats or hazards of use of technology. In the present time everything that we teach online is accessed by the students by the use of smartphones. Smartphones are the necessary evil for the youth, education system and society. Students use smartphones not only for attending the teaching sessions that are organised by the educational institutions but also use them for entrainment and to access social media. Excessive use of the smartphone may cause physical, psychological and behavioural problems in children (Nadu, 2020). In a research conducted by Alavi et al., 2020, it is showed that mobile phone are used to access 47% of social media in the world. Countries like USA, Australia and many Asian countries, use smartphone to access the social media.

The overuse of the mobile phones cause so many disorders in individuals like mood disorder, depression, bipolar disorder, anxiety and low self-esteem (Alavi et al., 2020). Another very dangerous issue of use of smartphones is the poor sleep quality and unhealthy behaviours. Heavy smartphone usage also responsible for the stress in students and insufficient stress may cause mental health problems (Zhai et al., 2020). It is very strange situation that on the one side smartphones are used for teaching learning process while on the other side these phones create serious issues and effect the academic performance of the students. Results of the study revealed that excessive smartphone cause psychological problems which results into poor academic performance(Amez & Baert, 2020; V. Santhi, 2020). In another study conducted in Hong Kong China, explained that students who are ore engaged with smartphones show poor sleep quality (P. Lee, Tse, Wu, Mak, & Lee, 2020). A very interesting study conducted in China also revealed that the individuals who use the smartphones for longer duration show symptoms of depression. There is a direct association between phone usage and depression. As the individual uses the phone for more time, more severe are the symptoms of depression(Ng et al., 2020). The use of smartphone for attending regular classes or for accessing social media effects the physical health of the user. Myopia is

a very common problem arises due to excessive use of smartphone. In case of myopia a person can see the objects at smaller distance clearly but objects present far away from the observer are blurry. There is a direct relation between phone usage and myopia (McCrann, Loughman, Butler, Paudel, & Flitcroft, 2020). Another very dangerous aspect of overuse of mobile phones is nomophobia. It is a condition when someone feels anxiety and fear that he/she cannot access the phone. Studies revealed that nomophobia increased with usage of the phones (Dalbudak, Yilmaz, & Yigit, 2020; Rodríguez-García, Belmonte, & Moreno-Guerrero, 2020). So, the smartphone is a necessary evil. It is a powerful tool for the digitalization of education but it effects physical as well as mental health of the user. It is important to restrict the use of smartphone.

Teacher-student relationship; A missing Ingredient

The major limitation of digitalization of education is the loss of connection between teacher and the students. In the traditional teaching there was a direct contact between teacher and taught. Students were attached to their teachers emotionally and this relationship positively affects the performance of the students. In the digital classrooms, flipped classrooms, online teaching, distance learning, teaching on screen using projector or in remote learning, there is a one missing ingredient which is the direct teacher-taught relationship. Research showed in the results that teacher-student relationship effects problem solving ability of the students in mathematics. Teacher student relationship increases the self-efficacy and decrease the anxiety, which positively effects the performance of the students in mathematics. Another result of the study is that, a strong and warm relationship between teacher and student encourages the students to participate in the classroom learning (Zhou et al., 2020). Another research highlights the importance of teacher-taught relationship. Results of this research showed that, good teacher-student relationship helps the students to perform better. In the environment of warm teacher-student relationship students show better engagement and better academic growth (Wu, Hughes, & Kwok, 2010). A very prominent study revealed that teacher-student relationship positively associated emotional engagement and academic press. Another result showed that teacher-student relationship positively affects reading performance of the students(J. S. Lee, 2012).

Absence of touch of nature

As the digitalization of education increases we are going to disconnected from the nature. Nature has great impact on human beings. It affects the physical health as well as mental health of the human beings. Many researches has been conducted to understand the effect of nature on human beings. A research suggests that lessons conducting in nature (in gardens or in the presence of trees and vegetation) increase the engagement of the students (Kuo, Browning, & Penner, 2018). In another study plants are arranged in the classroom in specific manners. The results of the research are so interesting. The stress level of the students significantly decreases in the presence of plants (Park, Song, Kim, Yamane, & Son, 2008). The academic performance of the students increases in the presence of trees. A study was conducted to know the effect of trees on mathematics achievement. Results of the study explained that students show significant increase in the academic performance in the presence of trees (Kweon, Ellis, Lee, & Jacobs, 2017).Students feel stronger feeling of presence, comfort and friendliness when plants are arranged in the classroom. Students show less problems of behaviour in the presence of plants. Larger the number of visible plants, lesser will be the level of anxiety (Han, 2009). Trees and vegetation is helpful in the recovery of tress. There is a less stress in the students when they are surrounded by trees (Guo, Zhao, Ren, Niu, & Zhang, 2020).

5. CONCLUSION

From the above discussion, it is evident that the use of technology in education is the need of the hour. On the other side, the digitalization of education creates many problems for the students. On the brighter side, by the use of technology in education, the teaching-learning process becomes very smooth and effective. It reduces the cost of education. The digitalization of education breaks the barriers of time and distance. In the difficult time of the COVID19 pandemic, technology facilitates the smooth going of the teaching-learning process. Technology in education is very useful for students, teachers, administrators, management, and parents. On the darker side, because of technology students are suffering from many physical and psychological problems. Therefore, proper guidelines should be provided by the ministry of education to the institutions for the use of technology. The mixed approach should be adopted, which is a mixture of the digital education system and the traditional education system.

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