DIGITAL EDUCATION IN INDIA: SCOPE AND CHALLENGES

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ABSTRACT

Now – a – days, technology is changing very fast in all the areas of life. Everything is being based on the use of technology application of ITC starting from communication to visual and audio entertainment travelling, electrification etc. Hence, the education system all over the world has been bound to make a dramatic change due to inability of the traditional education system to fulfill the modern day complex needs where everything is not only dynamic but also evolving at a very fast pace. So the traditional class rooms with black boards are being replaced by smart classes having the audio and visual system followed by PPTs presentation. In the same manner, Text books are being replaced by e-books. Therefore, we are moving far away from physical way of teaching and learning because of their shortcomings, we are moving towards virtual teaching and learning skills because it resolves the issues and challenges of traditional education. Indeed, digital education is the combination of technology, digital content and instruction in the education system hence it makes it more effective and efficient than the traditional system. This educational change has produced various advantages by increasing the knowledge base of the students. It makes them more confident to face the dynamic environment. But due to this, students are being ignorant because they are not focusing enough on the online classes due to thinking to have the access on line information any time. They are becoming rude and not giving proper regards or respects to their teachers. Along with all this situation they have a load of various types of information hence many of them evolved in the unwanted activities and they are exposed to information is not meant for them at the current age. My paper is basically based on the secondary source of information which has been gathered from various websites, research papers, news papers and magazine articles. I have tried to elaborate the upcoming trends in the digital education system that may be able to shape the future of our coming generations for the better.

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Keywords: *Education System, Digital Learning, Technology, Digital Education, MOOCs.*

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Introduction

Today's power is Knowledge. Hence a person who has more knowledge has more power. Indeed present world is a dynamic world which is continuously encouraging and promoting the changes in every field of life. Education is the base to generate and retain the knowledge and its resources. It not only leads us towards a better life style but also promote the happiness in life. Hence, with the development of Indian economy and society, Indian education is also being change. If we look into the ancient Indian education, there was a gurkul system where students were taught in the natural environment i.e. under the tree, in the Vedic Era, and the students remain under the strict control and observation of the guru. Later on, there was a change in the education system, students was taught in the class room with the help of black board and refereeing the text books to the students for further studies. With the globalization of Indian economy in 1991 and the revolution of Information technology, the teaching and learning method changed from black board to smart board connecting with the LCD projectors. Now students are not taught by chalk and talk, they are taught by PPT and talk, along with audio recording and video clippings. With the pandemic of Covid-19, we are exemplary moving towards digitalization of our education system. We are replacing the tradition books with the e- book. In the same manner assignment is being converted into the e-assignment etc. During the pandemic of COVID-19 teacher taught relations has also been changed, there are being taught via websites and with the help of various applications. Really the digitalization of education has make it very easy to search the various information within a second with the help of a click. It make the end user i.e. student to fulfill their thrust of knowledge.

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Objective of the Study

- Knowing about basic component needed for digital education
- Knowing about the various online learning software available for the students
- Knowing the factors which will create the hindrance in the growth of digital education
- Knowing the adverse impact of digital education on the behaviors, attitude and culture

Important Peripheral Components of Digital Education

- **Interactive Whiteboards**

    It is also known as SMART board. It is large touch-sensitive device used to detect user input with the help of sensor. We use computer video output on this board though the projector.

- **Classroom Personal Computer/Laptop/Tablets**

    It is needed in almost all the classes to prepare various reports and assignments and presentation by students. With the help of these instruments huge educational information may not only be stored but also be retrieved as and when required.

- **Projector**

    It is fundamental instrument for digital class because it helps to display the presentation of teachers and students. It acts as a reflector of information which are available in the laptop/computer to the large screen of whiteboard.

- **Internet Connectivity**

    It is the base of all above instrument. Without it all of the above instrument will be useless. Hence uninterrupted internet connectivity is the basic need. Therefore, good and speedy internet connectivity is needed to share the information within seconds though emails and to browse the various information such as research reports, study material, assignments etc.

Emerging Trends of Digital Education

- **Flipped/Digital Classrooms**

    With the help of this class, teacher may be able to capture the student's full strength by digital screen. It has increased engagement of the students due to combination of various instructional styles. Though this class every students may be able to acquire the world class education in more interesting, enjoyable and personalized manner. However, the aim of a educator must be to generate such environment so that every student will be eager to study.

- **Learning Based on the Videos**

    This part of digital education has not only geared up the Indian education system but also created the environment of entertaining, exploring and engaging via various wonderful apps, interactive software, videos, podcasts and e books and online electronic boards.

- **MOOCS i.e. Massive open online course**

    It is an online course in which a lot of participant may participate and open access via websites or links. After USA, India is the second biggest market for MOOCs due to huge population. To bring the revolution in the field of education, it may be the gateway for Indians. Indeed we may avail high quality education though the distant learning programme.

- **K12 Sector Learning though Game**

    It is a terminology used in K-12 school as Kindergarten through XII grade. It is being contributed and promoted by various start-up companies. It creates the game based educational learning enabling the learner to easily get the word of education in India.

- **Google Classroom**

    It is a free web service available for schools to help in drafting, mass distribution of assignments and notes and grading them in a paperless form. In this class room tacher may post study materials which may be reviewed by the student at home in the free time. It also make learning very easy and streamlined because file may be easily shared between teachers and students as well as student may post their queries relating to the lecture and get the reply not only from the teacher but also from the students.

- **EPathshala**

    This is a portal launched by the HRD and NCERT on November, 2015 to generate a gigantic educational reserve of various videos, audios, textbooks, periodicals and various types of printed and non-printed for teachers, parents, researchers, students and educators which is available on Android, Windows platforms etc. it allows the students and teachers to download them to read offline in their mobile/laptop as per the capacity of their instrument.

- **Kahoot**

    It is a game based learning platform. It is a multiple choice quizzes, may be assessed by a web browser. In this platform, materials are projected in the classroom and questions are answered by the students i.e. playing and learning at the same time. It creates a dynamic, and fun educational environment by enhancing students engagement.

- **BYJU's**

    It is a leading edutech startups in India. It is a combination of gamification techniques which engage the Math and Science students specially to learn with fun. In this technology or app, teachers use a combination of various mediums, tools and interactive formats to teach the concept to the student in the most personalized manner

- **Toppr**

    It is the learning app which is growing fast and providing personalized learning for students studing in any area of study whether academic or competitive or professional. It enables students to improve their examination scores with the help of comprehensively learning and reach upto their full potential through adaptive learning tests and practice packages which improve their ranks.

Advantages of Digital Learning over Traditional Education System

- **Lack of Physical Boundaries**

    In digital learning, there is no locational and time restrictions which is in a face to face learning system. In this learning, learners are able to attend the session anytime, anywhere according to his desire or facility or comfort.

- **No Geographical Limitations**

    Now – a- days, online and distance education have become more important due to lack of being present physically in the classroom. Various foreign universities have begun online degree courses what may be joined by the students from India also. Therefore digitalization of education has no boundaries for the thirsted students for knowledge.

- **Smarter Students**

    In digital learning, students are able to develop effective and self directed learning skills with the help of various available tools and technologies. They are being able to use online resources and apply the information with their problems. It certainly increases the efficiency as well as the productivity of the student. Digital learning also sharpen the critical thinking and learning skills of a students through analytical reasoning, open end questions with imagination and logic instead of just memorizing notes or textbooks temporarily. Students are also learning the cooperation and team work by group work.

- **Self Motivated and More Accountable**

    With the help of digital learning tools and techniques, students are being more engaged and interested in growing their knowledge. They are learning and memorizing through engaging methods e.g. teamwork, reverse teaching, peer education, concept maps, role playing, gamification, and storytelling, but they are not feeling the same as they feel in traditional education system. Therefore, they often offer a more interesting and involving way to digest information. It always reflects in their retention rate as well as their test scores. Therefore, student may improve their motivation and accountability.

- **Comfort Zone for Learners**

    In digital learning, we may study at any time which suits us as per our comforts as compared to the traditional class room in which every students have to present in the class room when the teacher I teaching.

- **Parents and Educators involvements**

    Teachers may create and manage various groups with the help of social learning platforms. Digital learning also benefits of tutoring to individual and small groups at the time of freeing up. There is also an opportunity to the educator to join various online professional learning communities to ask questions as well as to share tips or stay connected with a global educators' community. Hence they may

keep themselves updated relating to their content for their curriculum. Parents as well as educators, may use interactive activities to motivate their child's interest in learning by gamification which makes process more enjoyable and interesting. Parents may also explore online learning activities with their child which can serve as an extension to what they are learning in their classrooms.
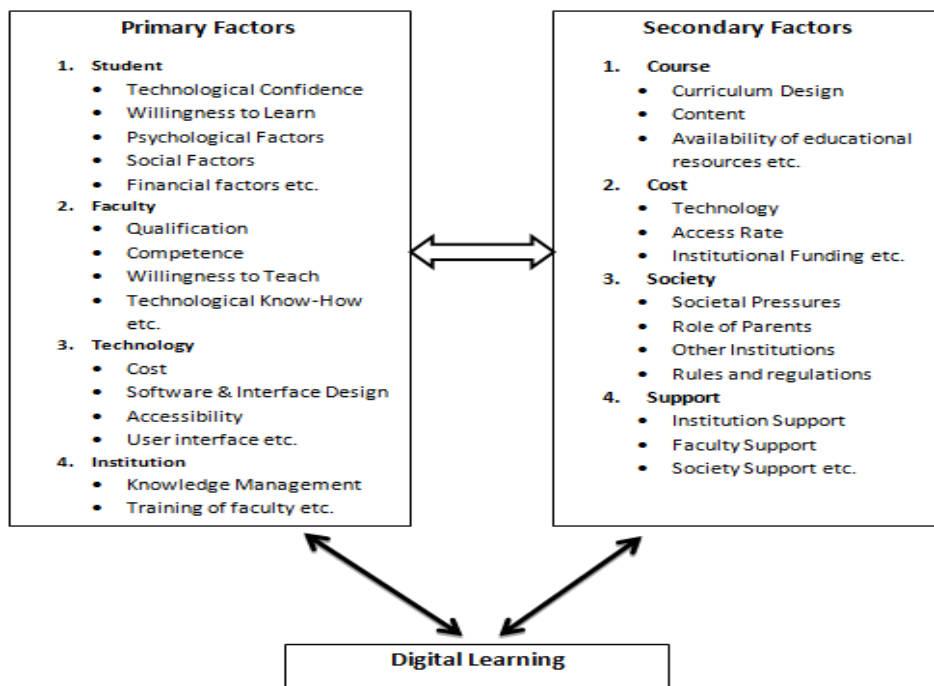
- **Enhancing employability of Students**

It is a prime responsibilities of School Education that each student must be equipped with higher education and hold a career at a young age. Digital learning programme which are based on problem based learning emphasize on the learning methods which are collaborative, constructive and calls the students attention to a real-world approach to learn. Digital learning tools and technology in elementary, secondary, and high schools prepares students not only for higher education but also for modern careers by helping them to acquire skills which includes problem-solving, familiarity with emerging technologies, and self-motivation.

- **Cost Effectiveness**

Digital education is cost effective as compared to traditional learning due to not paying a huge amount to acquire textbooks for school and college. In real sense, text books often become obsolete after a certain period of time.

Model of facilitating factors for Digital learning

Source : www.ijstm.com

Demerits to adopt the Digital Education

Undoubtedly, digitalization of Indian education has been helping students as well as teachers by providing a huge flow of information at any place and at the convenience of both so it is becoming popular day by day. In spite of this, it has the following demerits which need to be resolved:

- **Being Addicted**

Continuous dependence to seek information. to complete the assignments and homework online, to prepare the notes and to submit them to the evaluator for evaluation is very harmful to the health of students due to being attached with electronic gadgets.

- **Physical fitness being effected**

Since the children of all ages spend their maximum time on the studies via computer hence they also engaged themselves in the free time also by playing online games instead of outdoor and physical games. It leads them towards the fatness, obesity, diabetes, heart disease, neck pain, wrong posture, physical as well as mental stress etc.

- **Emotional distance and social disconnect**

    In spite of reducing the physical distance among people, it has increased the emotional distance among them due to being always busy in their own virtual world. People normally are forgetting their real world with their families and friends.

- **Lack of expression of feeling due to lack of face to face interaction**

    In traditional system, teacher and student develop understanding and confidence between each other due to direct face to face conversation but in digital learning we make the online communication which may not be able to understand the feelings so they are becoming more individualistic as well as more introvert. Hence there is need of face to face communication with them to express real feelings.

- **Groundless information at boyhood age**

    To browse the required study material related information, students are using modern and latest version of gadgets of mobile and laptops with 4G and 5G connectivity. They are not using such instrument for positive and relevant objects they are also viewing various unneeded and prohibited websites and information which are not only polluting their minds but also forcing them to do various unwanted and unnecessary functions which may be a kind of crime.

- **Shortfall of focus and concentration in academics as well as sports**

    Since a lot of students normally play with their mobile in whole day and night including the lecture time because they assume and treat SMS and Text massaging as their favorite time pass and entertainment. Due to over connection with digital world they are not able to pay proper focus and concentration towards academics and to a great extent towards the extracurricular activities and sports also.

- **Turning down writing capacity and skills**

    Now a day's writing skills of young generation is being declining day by day because they are using shortcuts in their online chatting during the whole day and relying and dependent on the digital communication. They are brushing aside to improve their writing skills. They are unable to use the proper spelling of various words with proper grammar due to tremendous use of shortcuts.

- **Promotion to cheat in the examination**

    Due to using graphical calculators, high tech smart watch, mini cameras and other similar equipments, it is being easier to the students to copy the formulas and notes on the graphic calculators for cheating in the exams because there is a little chance to be caught in such a manner.

- **Slowing down the calculating skills**

    Due to use of scientific and programmed calculators in the class rooms as well as in the examination, calculation powers of the students are declining continuously. They are being fully dependent on the calculating machine even for a simple additions and subtractions. Indeed, it is harmful for the students due to denting the applying capability of brain.

Recommendations

Due to use of smart phones, laptops and various educational apps, the ways of education in changing in present era. Students are participating in the social communication at the early boyhood. But in real sense, there is a problem which lies in the fact that these activities normally took place after completing the formal learning. Various studies has elaborated that informal learning is more effective and engaging in comparison to the formal learning. Therefore, it has been indicated by the researcher that technology driven students are also not interested or nor-participating for the formal learning. To resolve this problem, SEL (Social and Emotional Learning) should be provided by both – parents as well as teachers because it include the skills which are needed not only to regulate oneself but also to interact with others in constructive ways. With the help of this technique we may be able not only to reduce drug use, violence and bullying etc. but also to give effective classroom instruction, engagement of student in affirmative activities in both – inside and outside the classrooms. We may also be able to involve the parents and communities in the education with the use of SEL.

Conclusion

Undoubtedly, e-learning is not only an innovative approach of learning but also a holistic way of teaching and learning. Really it is an environment which is made by collaboration, choice and an array of technological resources. Therefore, we may state that, to match the educational system and environment

with all over the world, digitalization of education is undoubtedly the need of the hour but we have to keep in mind for implementing the digital education in this pandemic also that our youth must not be excessive dependent on this electronic medium and they should be prevented from behavioral and physical imbalances. At the same time policy relating to digital education must be drafted in such a manner that the relationship of teacher and taught may be protected. Such type of measures should be decided that the youth may not be able to access the unwanted information or such information which may mislead to them towards the unsocial and violence related activities. Our youth is our human assets so we must tackle them very carefully to convert them into capable and responsible citizen of India. Therefore, we should develop a well defined and purposeful online course which may be able to supports both – the instructor and learner.

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