A Study on Digital Education in India: Scope and Challenges of an Indian Society

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Abstract

Education plays an important role in the overall development of individuals thereby contributing immensely to the overall development of a nation. Education is one of the important sectors worldwide that is witnessing revolutionary changes in recent times. This is mainly due to the digital revolution that has taken place all over the world. A typical Indian classroom was once characterized by students sitting in hour-long sessions, the teacher discussing things without any visual presentation. Now, thanks to digital technology, it makes life easier for both students and teachers. Digital education is fun learning for all cadres and especially effective for children's learning, because the innovative audio-video function strengthens the cognitive elements in the child's brain. Schools are increasingly adopting digital learning solutions in their academic activities and are striving to make the classroom environment more inclusive and participatory. This makes them more confident to face a dynamic environment. But this makes students ignorant because they don't focus enough on online courses because they think they can access online information anytime. They become rude and do not give proper greetings or respect to their teachers. Along with all these situations, they have a load of different types of information, so many of them have developed into undesirable activities and are exposed to information that is not currently intended for them. My work is basically based on secondary source of information which I have collected from various websites, research papers, newspapers and magazine articles. I have tried to elaborate on the upcoming trends in the digital education system that may be able to shape the future of our future generations for the better.

Keywords: Educational system, Digital learning, Technology, Digital education

Introduction

Digital education means digital learning. It is a type of learning that is supported by digital technology or an instructional practice that makes effective use of digital technology. Digital learning occurs in all educational areas and domains. Digital education provides win-win opportunities for all, on the one hand, schools, colleges and other institutions are seeing a rapid increase in student enrollments and higher revenues due to digital education, and on the other hand, students are seeing it as a flexible and alternative option that allows them to study. according to their appropriate time and pace. Teachers and professors also find it convenient to prepare lesson plans using digital technology. Teaching and learning becomes more fluid as it includes animations, gamification and audiovisual effects.

Now students don't learn by chalk and talk, they are taught by PPT and talk along with audio recordings and video clips. With the Covid-19 pandemic, we are moving towards the digitization of our education system as an example. We are replacing traditional books with e-books. In the same way, assignments are converted to e-assignments, etc. During the COVID-19 pandemic, the teaching relationships of teachers have also changed, teaching takes place via websites and using various applications. Digitization of education has indeed made it very easy to find various information within a second with a click. It forces the end user i.e. the student to fulfill their knowledge turn.

Objective of the Study

- Knowledge of the basic components needed for digital education
- Know the various online learning programs available to students
- Knowledge of the factors that will hinder the growth of digital education
- Knowledge of the adverse impact of digital education on behaviour, attitudes and culture.

Important Peripheral Components Of Digital Education

• Interactive whiteboard

It is also known as SMART board. It is a large touch device used to detect user input using a sensor. We use the computer video output on this board through the projector.

• Personal computer/laptop/tablets in the classroom

In almost all classes there is a need to prepare various reports and assignments and student presentations. Using these tools, huge educational information can not only be stored, but also retrieved when needed.

• Projector

is an essential tool of the digital classroom as it helps to display the presentation of teachers and students. It works as a reflector of the information available on the laptop/computer onto the large whiteboard screen

• Internet connection

It is the basis of all the tools mentioned above. Without it, all the above tools will be useless. Therefore, a continuous Internet connection is a basic need. Therefore, a good and fast internet connection is needed to share information within seconds through emails and to browse various information such as research reports, study materials, assignments etc.

New Trends In Digital Education

• Flipped/Digital classrooms

With the help of this class, the teacher can be able to capture the full power of the student on the digital screen. By combining different teaching styles, student engagement increased. Although this class, every student can be able to receive a world-class education in a more interesting, fun and personalized way. However, the teacher's goal must be to create such an environment that every student has the desire to study

• Video-based learning

This part of digital education has not only enhanced the Indian education system but also created an environment for entertainment, discovery and engagement through various amazing apps, interactive software, videos, podcasts and e-books and online e-boards.

• Google Classroom

It is a free web-based service available to schools that helps compile, mass distribute and grade assignments and notes in a paperless format. In this classroom, the teacher can post study materials that the student can view at home in their free time. Learning is also very easy and streamlined because the file can be easily shared between teachers and students, as well as a student can send his questions regarding the lecture and get a response not only from the teacher but also from the students.

• BYJU's

These are the leading tech startups in India. It is a combination of gamification techniques that engage math and science students to make learning fun. In this technology or app, teachers use a combination of different media, tools, and interactive formats to teach the student a concept in the most personal way possible.

Advantage Of Digital Education

A. **Benefits for the academic institution:**

• An academic institution can easily manage its activities using digital education. Some of the important benefits are:

• The institution's time and money are saved.

• They can easily schedule an online exam and publish exam results quickly.

• Allows knowledge to be easily and evenly transferred from the teacher to each student using effective and advanced technology-based learning tools.

• It helps in creating interest among the students which helps them to learn many concepts through interactive audio visual teaching content.

• Advantages over other schools and colleges that cannot provide such an integrated function-based learning and management system.

• Easy communication between institution and parents for academic activities of students.

B.**Benefits for students:**

Since all the study content will be taught in the classroom through multimedia slides, it creates interest and enthusiasm among the students. Learning will be fun for them. They are able to memorize many concepts through interactive audio-visual teaching content. Some other benefits for them are:

• They can easily view their daily schedule, class assignments, any events planned at school, etc. from home.

• They are able to prepare projects and presentations online.

• They can take the online exam and view their results.

• They can easily collect the teaching content of the missed lecture online.

• They have access to the library online.

C.**Benefits for parents:**

• In today's world it is difficult for parents to visit school or colleges due to their busy work schedules. Digital education helps parents view all information about their ward from the comfort of their home or office. Some of the other benefits are:

• Digital education web facility helps parents to view child's attendance record, syllabus progress, time table etc.

• They can easily check the subject taught in school, homework given to their choir, any future assignments and projects and guide the choir to participate and practice accordingly.

• Easily view the schedule and results of internal and semester exams.

• They can easily pay school fees and other activity fees.

• They can get information about various school events, announcements, holidays and can monitor the presence of the choir in the classroom / outside the classroom.

D.**Benefits for teachers:**

Digital technology in education is also generating interest among teachers. It helps them to conduct learning interaction among students very effectively. Some other benefits are:

• It helps the teacher to effectively manage the time and content of the lesson.

• Through the website, they can easily use information about the school and the class.

• They can check daily schedule, assignments, lesson history, event and holiday list, self and student attendance etc.

• It will help explain difficult content easily and effectively.

E. **Benefits for directors:**

Some of the important advantages of the principle are:

• Easy management of all school/college activities.

• In case he is on vacation, he will be able to access all the school information online and manage the school easily.

• Can track teachers' teaching progress and student performance.

• It will help in allocating hours and subject to the teacher according to his interest and experience.

• Can assign tasks to other employees and give notes on their work

Scope Of Digital Education In India

Globally, India occupies a significant place in the field of education. There are more than 1.4 million schools across the country with more than 227 million students enrolled in various disciplines and more than 36,000 institutions of higher education. India has become the second largest market for digital education after the US. However, there is still a lot of room for further development in the field of digital education. There have been several significant investments and developments to support digital education in India. Some of them are:

• A pioneer in training and skill development, NIIT plans to offer online courses from leading international universities to about 5,000 people with US-based edX over the next three years.

• Digital education start-up, Byju's, has raised USD 50 million from the Chan Zuckerberg Initiative, launched by Facebook founder Mark Zuckerberg to advance digital education in India.

• Online and Classroom Certification Courses offered by Neev Knowledge Management Pvt. Ltd under the brand EduPristine has raised USD 10 million from Kaizen Management Advisors and DeVryInc to develop digital education in 15 cities across the country.

• Intel Corporation, an American multinational technology firm, plans to provide optimized learning solutions and advanced computing technologies to students and schools across the country.

• In IT, Cisco Systems plans to invest US$100 million in India over the next 2 years to develop digital education, which will include the opening of six new innovation labs to help train around 250,000 students. 2020.

• Tata Trusts, part of the Tata Group and Khan Academy, launch a free learning portal for free digital education in India.

• Hyderabad-based start-ups Ignis Careers and SEED are working to provide low-cost school education with the help of digital technology.

Challenges of Digital Education

Some of the major challenges for digital education in India are:

• Resource and Internet connectivity challenges.

One of the major challenges for digital education in India is poor internet connectivity in rural areas and some parts of urban areas. A majority of the population across India still does not have access to the internet and a large population in rural areas is still digitally illiterate. More innovation is needed to make digital education more interactive and robust.

• Lack of trained teachers.

Lack of knowledge and skills is a major barrier to the use of digital education in rural areas. There is a shortage of teachers formally trained in digital technology. In some academic institutions in rural areas, teachers and university professors are not interested in using digital tools for teaching. They feel that too much information is explained to students at once through the digital medium and prefer the traditional chalk and blackboard teaching methods.

In rural areas, primary school teachers and senior teachers are reluctant to undergo training and adopt digital technologies for digital education in schools because they believe that these disruptive technologies are meant to permanently replace them.

• Language and content challenge.

Languages are one of the major hurdles for the development of digital education in India, with several different languages spoken across the country in different states, pushing all digital content in all these regional languages becomes difficult for agencies over time.

• Poor maintenance and upgrading of digital equipment.

In rural areas, maintaining and upgrading digital equipment is one of the main challenges. This is largely due to budgetary constraints from the government. Digital education projects in rural schools are not self-sustaining. In the initial phase, various projects were started by the government for the development of digital education, but later they were not given proper care to maintain the digital equipment, which affects the development of digital education in rural areas.

• Insufficient funds

Digital education involves effective and efficient use of appropriate and latest hardware and software technologies available in the market. In developing countries like India, implementing digital technologies in education systems is a difficult task as it requires huge funds and infrastructure. Through the Digital India programme, the government has promised the availability of funds to implement technology, but the lack or lack of funds is leading to redundant and outdated infrastructure and equipment in rural schools.

Research Methodology

The main focus of qualitative research methods is to provide a comprehensive picture of the situation with the aim of understanding behavior and mutual relationships. The study is primarily based on secondary data. The research for this article was conducted through a literature review without any empirical work being conducted. A large source of written material was used, which included articles from book journals, academic journals as well as websites.

Conclusion

The education sector in India has seen a series of rapid expansions in the past few years that have helped transform the country into a knowledge haven. The study clearly points out that the development of educational infrastructure is necessary for the development of digital

education across the country. This will lead to a significant increase in infrastructure investment in the education sector. Democratic governance, English-speaking tech-educated talent and a strong legal framework for intellectual property protection are essential for the development of digital education in Indian society. The Government of India has also taken major initiatives to develop digital education in India such as opening IITs and IIMs in new locations as well as allocating educational grants for researchers in most government institutions. At the same time, a policy on digital education must be adopted. designed to protect the teacher-learner relationship. Such type of measures should be decided so that the youth do not have to get access to unwanted information or information that could tempt them to engage in anti-social and violent activities. Our youth are our human assets so we have to deal with them very carefully to turn them into capable and responsible citizens of India. Therefore, we should develop a well-defined and purposeful online course that can be able to support both the instructor and the student.

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