

A STUDY ON DIGITAL EDUCATION IN INDIA: SCOPE AND CHALLENGES OF AN INDIAN SOCIETY

Mr. RAMPRAVESH GOND,
Research Scholar, JJT University,
Rajasthan.

Dr. RASHI GUPTA,
Research Guide, JJT University,
Rajasthan.

ABSTRACT

Education plays important role in overall development of individuals thereby contributing immensely to the overall development of a nation. Education globally is one of the important sectors to witness revolutionary changes in recent times. This happens primarily because of digital revolution taken place all across the globe. The typical Indian classroom was once characterized by students sitting through hour-long session, teacher used to discuss the things without any visual presentation. Now, thanks to digital technology, it is making life easier for both students and educators. Digital education is fun learning for all cadres and particularly effective for child learning as the innovative audio-video feature boosts the cognitive elements in a child's brain. Schools are increasingly adopting digital teaching solutions in their academic, and trying to make the classroom environment more inclusive and participatory. The INFO-TAINMENT combination involved in digital education makes it more practical, applicable and relatable to our life and surroundings in an interesting manner.

In India, from last few years there has been a considerable rise in Digital and Live Virtual Classrooms at different levels of learning. With evolution of technologies such as cloud, virtual data centres and virtualization there is huge potential for technology to be integrated with the Education Industry. The purpose of this research is to give overview of digital education, components of digital education, benefits of digital education in India, the future scope and possible challenges of an Indian society for moving towards digital education.

Keywords: Digital education, Cloud Computing, Virtualization, INFO-TAINMENT.

I. INTRODUCTION:

Digital education means digital learning. It is a type of learning that is supported by digital technology or by instructional practice that makes effective use of digital technology. Digital learning occurs across all learning areas and domains. Digital education gives win-win opportunities for all, at one side School, colleges and other institution finds the rapid rise in enrolments and added revenue because of digital education, and on other side students view this as a flexible and alternate option allowing them to study as per their convenient time and pace. Teachers and professors too find it convenient to prepare their teaching plans aided by digital technology. Teaching and learning becomes a smoother experience as it includes animations, gamification and audio-visual effects.

Over the last few years digital education in India is evolving at faster pace. It is changing the way students learn different concepts and theory in school and colleges. The traditional chalk and talk method in school and colleges has been slowly changing with more interactive teaching methods as schools and colleges are increasingly adopting digital solutions.

Digital learning guarantee more participation from students as the current generation of students are well-versed with laptops, I-pads, and smartphones. There are different private players in the field of digital education like Educomp, Tata Class Edge, Pearson, and TeachNext who are continuously engage and developing different interactive software to help teachers in classroom teaching.

Component of Digital Education: Primarily Digital Education has 3 components:

- The content
- The technology platforms
- The delivery infrastructure

To understand in better way let's take an example of BYJU's, one of premier organisation offering digital education for school sections, college sections and various competitive exams. They claim they will make teaching a fun experience for your child. They are offering good content for each section covering all the academic details. All the portions are loaded in digital tablet by Samsung or Lenovo. They are having good delivery infrastructures, once you have placed ordered as per your requirement, the product will be delivered at your place and thereafter they will give online demo to use the same.

II. BENEFIT OF DIGITAL EDUCATION

1. Benefits to Academic Institution:

Academic institution can easily manage their activities with the help of digital education. Some of the important benefits are:

- Time and money of the Institution will be saved.
- They can easily plan to conduct online exam and publish the exam results quickly.
- It makes knowledge to transfer easily and equally from teacher to each and every student with the help of effective and advanced technology based teaching tools.
- It helps in creating interest among student which will help them in learning many concepts through interactive- audio-visual teaching contents.
- Advantages over other schools and colleges which cannot provide such integrated feature-based learning and management system.
- Easy communication between Institution and parents for student related academic activities.

2. Benefits to Students:

As all the study contents 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 contents. Some other benefits to them are:

- They can easily view their daily time-table, class assignments, any events planned in school etc. from home.
- They are able to prepare projects and presentation online.
- They can give online exam and view their results.
- They can easily collect teaching contents of missed lecture online.
- They can access library online.

3. Benefits to Parents:

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

- The web facility of digital education helps the parents to view their child's attendance record, progress in syllabus, timetable, etc.
- They can easily check the subject taught in school, homework given to their ward, any future assignments and projects and guide the ward accordingly to participate and practice.
- Easily view internal and semester exam schedule and results.
- They can easily pay the school fees and other activity charges.
- They can get information on various school events, notices, holidays and can track the presence of ward in the classroom /outside the class.

4. Benefits to Teachers:

Digital in education also creates interest among teachers. It helps them to make teaching interaction among students very effectively. Some other benefits are:

- It helps the teacher to manage their class time and teaching content effectively.
- They can easily avail the school as well as class related information through web.
- They can check daily time-table, assignments, teaching history, events and holiday list, self as well as student attendance etc.
- It will helps in explaining the difficult content easily and in effectively.

5. Benefits to Principals:

Some of the important benefits to principle are:

- Easy to manage all the school/college activities.
- In case if the he is on leave, he will be able to access all the school information online and manage the school easily.
- He can view teachers' teaching progress and students' performance.
- It will helps in allocation of class and subject to a teacher according to his/her interest and experience.
- He can assign tasks to other staff members and give remarks for their works.

III. SCOPE OF DIGITAL EDUCATION IN INDIA

Globally India holds an important place in the field of education. There are more than 1.4 million schools all over the country having over 227 million students enrolled across different fields and more than 36,000 higher education institutes. India has become the second largest market for digital education after the US. However, there is still a lot of scope for further development in the field of digital education. There are some major investment and developments that have been taken place to promote the digital education in India. Some of them are:

- NIIT, which is pioneer in Training and skills development is planning to offer online courses from leading international universities to about 5 lakh people over the next three years with US-based edX.
- A digital education start-up, Byju's, has raised US\$ 50 million from the Chan Zuckerberg Initiative, founded by Facebook founder Mark Zuckerberg for the development of digital education in India.
- Online and classroom-based certification courses offered by Neev Knowledge Management Pvt. Ltd under the brand name EduPristine has raised US\$ 10 million from Kaizen Management Advisors and DeVry Inc for the development of digital education in 15 cities across the country.
- Intel Corporation, a US based multinational technology firm is planning to provide optimised learning solutions and extended computing technologies to students and schools across the country.
- In the field of information technology, the Cisco Systems plans to invest US\$ 100 million in India over the next 2 years for the development of digital education which will include opening of six new innovation labs, which will help to train around 250,000 students by 2020.
- Tata Trusts which is the part of the Tata Group and Khan Academy are starting web-based free learning portal to provide free digital education in India.
- Ignis Careers and SEED, Hyderabad-based education start-ups are working to provide low-cost school education with the help of digital technology.

IV. CHALLENGES OF DIGITAL EDUCATION

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

- **Resource and internet connectivity related challenges.**

One of the main challenges for digital education in India is poor internet connectivity in rural areas and some part of urban areas. Majority of population across India has still no access to internet and a large population in rural areas is still illiterate in the field of digital technology. More Innovations required to make the digital education more interactive and robust.

- **Shortage of trained teachers.**

A major obstacle in the use of digital education in rural area is the lack of knowledge and skills. There is a shortage of teachers, formally trained on digital technology. In some of the academic institution in rural areas, school teacher and college professors are not interested in using digital tools for conducting classes. They feels that a lot of information is explained to the students at one go through the digital medium and they prefer traditional teaching methods of chalk and blackboard. In rural areas, primary teachers and senior teachers are reluctant to get trained and adopt digital technologies for digital education in school because they are in view that these disruptive technologies are out to replace them permanently.

- **Language and content related Challenge.**

Languages is one of the main barriers for the development of digital education in India, there are several different languages in different state have been spoken all across country, pushing all the digital content in all these regional languages some time becomes difficult for the agencies.

- **Poor maintenance and upgradation of digital equipment.**

In rural areas maintenance and upgradation of digital equipment is one of the major challenge. This is largely due to budgetary constraints by government. The digital education projects in rural schools are not self-sustainable. At initial stage various projects have been launched by government for the development of digital education, but later, they have not been taken due care for the maintenance of digital equipment which is affecting the digital education development in rural areas.

- **Insufficient funds**

Digital education involves effective and efficient usage of appropriate and latest hardware and software technology available in the market. In developing countries like India, digital technology implementation into education systems is a difficult task as it requires huge funds and infrastructure. Through Digital India programme, the government has promised availability of funds for technology implementation but lack or insufficiency of finances leads to redundant and obsolete infrastructure and equipment's in rural schools.

V. OBJECTIVE

The objective of the research paper is to study:

- Component of Digital Education.
- Benefit of Digital Education to different stakeholder.
- Scope of Digital Education in India.
- Challenges of Digital Education

VI. LITERATURE REVIEW:

The study involve review of different literature. Some of them are as follow.

- **Jinal Jani and Girish Tere (2015).** Digital India programme introduced by government of India is important for the development of digital education in the country. Digital India drive is a project initiated by Government of India for creation of digital empowered society across the country. It will help in mobilizing the capability of information technology across government departments and helps in delivering the different governments programs and services. Digital India will help in creating job, providing high speed internet and digital locker system and so forth. Digital India has three important components namely digital infrastructures creation, digital delivering services and resources and digital education.
- **Shikha Dua et al., (2015).** They have discussed the different issues, trends and challenges of digital education in India and suggested the empowering Innovative classroom model for learning. The future trend of digital education includes digitalised classroom, video based learning, and game based learning and so forth. They have pointed out different challenges of digital education India and suggested measures to overcome these challenges.

Constant reforms required in schools and teacher for the development of digital education in India.

- **Himakshi Goswami (2016).** The study highlighted the different opportunities and challenges of digital India programme in India. Digital India programme introduced by government of India will help in transforming country into a digitally empowered economy. This will help government of India to integrate the Government Departments with the people of India. The main purpose of this programme is to reduce the paper work and help in providing different Government services electronically to citizens. It describes the different opportunities of the programme for the people of the country. India is having different languages, culture, and customs, food habits, laws and traditions. The purpose of digital India programme is to integrate whole country digitally but languages would be the main challenges in the implementation of such programme.
- **Jayesh M. Patel (2017).** There are many web based tools which can be used in the classroom for digital education like twitter, Glogster, Prezi, Diigo, Dropbox, and Moodle. Teachers and students are interested in web based digital learning but because of lack of knowledge they are not initiating the same. Web based tools will make the learning interesting and students will get motivated which normal classroom cannot do. Currently the teacher centric approaches are making learning boring even for interesting chapters , use of digital technology makes even boring content interesting and joyful. The concept of child centred approach will be fulfilled only with the help of digital technology.

VII. RESEARCH METHODOLOGY

The main focus of Qualitative research methods are providing a complete picture of the situation with the aim of understanding of behaviour and inter-relations. The study is primarily based upon the secondary data. The research for this paper was conducted through literature review, without any empirical work being conducted. A large resource of written material was used, which included books magazine articles, academic journals, as well as the websites.

VIII. CONCLUSION OF STUDY

Education sector in India has seen a series of rapid expansion in last couple of years which helped to transform the country into a knowledge haven. The study clearly points that development of education infrastructure is required for the development of digital education across the country. This will lead to considerable increase in infrastructure investment in the education sector. Democratic governance, English speaking tech-educated talent and a strong legal and intellectual property protection framework are required for the development of digital education in Indian society. Government of India has also taken major Initiatives for the development of digital education in India like opening of IIT's and IIM's in new locations as well as allocating educational grants for research scholars in most government institutions. As per the Union Budget 2016-17, 10 public and 10 private educational institutions to be made world-class, Digital Repository for all school leaving certificates and diplomas. Rs 1,700 crore (US\$ 250 million) allocated for 1500 multi-skill development centres. 62 new Jawahar Navodaya Vidyalayas (JNV) to provide quality digital education. Digital literacy

scheme to be launched for covering six crore additional rural households. The Government of India has further announced plans to digitise academic records such as degrees, diplomas, mark sheets, migration certificate, skill certificate, etc. from secondary to tertiary-level institutions into a National Academic Depository (NAD). The study highlighted the different challenges of digital education in India. Government of India needs to take the required measures to overcome these challenges for the development of digital education in India.

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