

## Influence of digital revolution on Indian education system

Ms. D. Rathidevi<sup>1\*</sup>, Dr. M. V. Sudhakaran<sup>2</sup>

### ABSTRACT

Rapidly evolving technology is changing the way of imparting and absorbing knowledge. There is no sphere of our lives that is not touched by the Digital Revolution happening around us, education is not an exception. The process of imparting education has gone through a massive change and has taken over almost every field of our lives and the onset of online courses came as a path-breaker. Online education has become the state-of-the-art trend and has broken the age-old system of the brick and mortar institutions. The technological developments include internet, whatsapp, youtube etc plays a crucial role in the digital educational environment. Moreover, an attempt was made by the Government of India to revolutionize the society and to focus on utilizing the digital technologies to elevate the down trodden and bridge the gap between the different social strata. With nearly a billion people on mobile phones and over 200 million mobiles connected to the internet, there has been a considerable rise in digital learning. Are the influential innovations a threat to conventional ways of learning and teaching or are they the solution to overcome some of the difficulties of our present system of learning? The answer to the above question can be deduced from analyzing the developments, advantages and limitations of digital learning. Hence the present study attempted to analyze the impact of digital revolution in the field of Indian education system.

**Keywords:** *Digital Revolution, Digital learning, Education.*

**T**he Digital Revolution refers to the development of technology from analog electronic and mechanical devices to the digital technology available today. The era started to during the 1980s and is continuing. The Digital Revolution also marks the beginning of the Information Era. The Digital Revolution is sometimes also called the Third Industrial Revolution (Technopedia).

According to Technopedia, the Digital Revolution had begun to spread all over the developing world; mobile phones are commonly seen, the number of Internet users continued to grow, and the television started to transition from using analog to digital signals from the year 2000s. After 2010, Internet makes up more than 25 percent of the world's population. Mobile communication has also become very significant, as nearly 70 percent of the world's

<sup>1</sup>Research Scholar, SOSS, TNOU

<sup>2</sup>Professor & Head, SOSS, TNOU

*\*Responding Author*

**Received: January 18, 2020; Revision Received: March 9, 2020; Accepted: March 29, 2020**

## **Influence of Digital Revolution on Indian Education System**

population possesses a mobile phone. The connection between Internet websites and mobile devices has become a standard in communication. Nowadays people use media, educational services and business applications on their mobile devices itself. With nearly 200 million mobiles phones connected to the internet, there has been a significant increase in digital learning.

### ***Digital Learning***

Today living in the 21st century, nearly everything around us is either digital or getting to it at a fast pace. This is the age of having virtual conversations, virtual meetings, virtual shopping, and virtual relationships as well as a virtual life. Being in this virtual world, digital learning has become the latest trend and has cracked the age-old traditional and established system of education. The digital learning is any kind of learning that is accompanied by technology or by instructional practice that marks effective use of technology. It encompasses the application of a wide spectrum of practices including: blended and virtual learning (Wikipedia). The digitalization of education keeps the learners in-sync with the modern world. Student can get the feeling of being in a virtual class anywhere anytime, without being loaded by the weight of books. Digital learning also provides many extra benefits beyond convenience and monetary savings. Knowledge of the functions of the Internet, typing and software programs are the skills essential to be considered digitally literate. Moreover, online learning helps strengthen these skills and makes learning more engaging and effective. According to Ahuja (2015) Digital learning is growing at 19% per year, online enrollment now represents 25% of all higher education enrollments.

As each day progresses Digital learning is replacing traditional and recognized educational methods. The inclusion of digital learning in the classrooms can vary from using tablets instead of paper to using software programs and equipment as opposed to the simple pen. A digital learning strategy may include any of or a combination of any of the following: blended, e-textbooks, online learning (or e-learning), mobile learning, technology-enhanced teaching and learning, virtual reality and augmented reality. Some of the pedagogies, or practices of teaching, that combine technology and learning are blended / hybrid learning, online learning, Flipped learning, 1:1 learning etc.(Wikipedia).Moreover social networks and communications platforms can be used to make, manage and evaluate digital assignments and programs. Irrespective of how much technology is integrated into the classroom, digital learning has come to play a vital role in education. Qian, Lizhen & Hu (2007) has analyzed the concept and characteristics of digital learning, and then elaborates the unavoidability of personalized Information service as well as the necessity of its development. Major advantage in utilizing data source is having established a visual personalized learning environment is teachers and students can exercise the mutual communication, and provides knowledge service for students by Web way.

All schools and colleges are challenging with the influence of the digital revolution on both the delivery of education and on the learning styles of the students. Online courses are now in better demand than the equivalent face-to-face traditional courses. Also, the online platform is available 24×7, so the learners can participate whenever convenient, since they need not tied down to a fixed timetable. Moreover, the online education is easily accessible across the various devices that we are all so familiar with. Being an ecofriendly approach, lot of trees were saved from being cut for books made of paper.

## Influence of Digital Revolution on Indian Education System

### *Developments in Digital Learning*

The quality of education in any society forms the groundwork for the development of the society. Keeping in mind the prominence of education, the digital India initiatives by Ministry of Human Resource Development puts together a number of digital services for improving the dissemination of education in society. Be it primary level, secondary level or higher education and research facilities, the various digital schemes in this sector are transforming the education system in our country.

Number of schemes in the education sector namely '**SWAYAM**' scheme provides an opportunity to students to access courses taught in classrooms from ninth standard to post graduation, that can be accessed by anyone, anywhere at any time. This digital scheme not only brings learning at the door step of numerous students but accessibility for the learners who cannot join formal education. Another initiative **SWAYAM Prabha** offers 32 high quality educational channels through DTH (Direct to Home) across the length and breadth of the country on 24X7 basis. Another digital scheme is '**ePATHSHALA**' which distributes all educational content through website and mobile app. Schemes like '**Mid-Day Meal Monitoring App**', '**Shaala Sidhi**' and '**Shaala Darpan**' emphasizes on quality of school administration and also helps the schools and kendriya vidyalas to improve the quality of education. Furthermore, **OLABS**' digital scheme i.e. online labs for school lab experiments offers students with ease of conducting experiments over internet.

**The National Digital Library of India** (NDL India) project is to develop a structure of virtual repository of learning resources with a single-window search facility. As on date about 1.5 Crore e-books and documents are available on NDL contributed by 160 Content contributor and 30 lakh users from 9 thousand educational institutions were registered on NDL. Biswas (2010) analyzed that the digital Library open source software that has helped spread the practical impact of digital library technology throughout the world, especially developing countries. In order to facilitate research, the e-Shodh Sindhu was developed which is the Consortia for Higher Education-Resources is to provide access to quality electronic resources including full-text, bibliographic and factual databases to academic institutions at a lower rate of subscription.

**The Free and Open Source Software for Education (FOSSEE)** project has been promoting use of open source software in educational institutions. **Virtual Lab** project aims to provide remote-access to virtual laboratories in various disciplines of science and engineering for students at all levels from under-graduate to research. In addition, Schemes like the '**National Scholarship Portal**', '**eGranthalya**', '**National Knowledge Network**' not only look at the sector of education but are reaching out in bringing education to the underprivileged (Ministry of Human Resource Development 2018). Thus, numerous initiatives by Government in various sectors are not only an attempt to develop the society but also focus on utilizing the digital technologies to uplift the down trodden and link the gap between the different social strata (Singh 2017).

### *Advantages in Digital Learning*

Digital learning enables students to develop effective self-directed learning skills. They are able to find out what they need to learn, and the required online resources, imply the information on the problem at hand, and even analyze the feedback. In addition to engaging students, improving their competency digital learning tools and technology sharpen critical thinking skills, which are the basis for the development of logical reasoning. Learners who explore open-ended questions with imagination and logical analysis, learns how to make

## **Influence of Digital Revolution on Indian Education System**

decisions, contradictory to just momentarily memorizing the textbook. Equipping students with the requirements of higher education and choosing a career at a young age has become one of the most important responsibilities of school education. Moreover, Digital learning tools and technology in elementary, secondary, and high schools prepares students for higher education and modern careers by helping them acquire skills including problem-solving, familiarity with emerging technologies, and self-motivation. Digital Learning materials Involve Educators and parents make it easy for teachers to create and manage groups. They can keep themselves updated with the most appropriate content for their curriculum.

Digital learning has also influenced on the cost of the education. For starting a course in a desired university, students do not need to move to that city, and pay for your trip, accommodation and transfer. In addition, timesaving is one of the most important consequences of digital learning on education. Digital learning tools and technology enable educators to rapidly share information with other educators in real-time (Mashhadia & Kargozarib, 2017). By accepting digital devices and connected learning, classrooms around the country and around the globe can not only coordinate and organize with one another to share insights but also boost knowledge, experience, and communication and employability skills. Learners can access information from anywhere regardless of their location.

Educational tools by Young Digital Planet such as Bingiel teach children how to work together in groups. This is done through gamification. Gamification is a great feature of interactive learning as it teaches children playing in a group to depend on and trust each other in order to win a game. They also encourage cooperation and teamwork which are very imperative skills, in every aspect of life.

Krishnan (2011) found that blended learning strategy is more effective than the traditional method of teaching in enhancing critical thinking, problem solving, science process skills and science achievement. It was also found that students with different learning styles are equally benefitted by the blended learning strategy. Students showed an overall positive reaction towards the strategy. Learners also develop positive feelings of success from learning new knowledge and skills using digitized learning tools. Suresh Kumar (2001) also conferred the use of internet for computer assisted instruction, to perform teaching and learning together. The study revealed that the motivation is needed to make the students use multimedia in their day to day learning process. When multimedia was used by learners, it was found that high level of interests was generated among the students who scored more than the scores obtained by students in regular learning.

### ***Limitations in Digital Learning***

In Indo-Aryan "Guru" means that teacher. "Gu" means that darkness (ignorance) and "Ru" stands for light; a Guru is one who dissolves darkness of content together with his light of information. Hence the academicians are thought as torch-bearers to brighten the man (Guru – Wikipedia).

They are considered as would be less valued in the educational institutions as their roles are replaced by computers. Human relations are lessened in the virtual world. As online social networking increasingly replaces really face-to-face and physical contact, isolation can increase which may leads to social withdrawal. Since the amount of time spent in internet increases problems such as cyber-bullying, online stalking and cybercrime may also increase. Moreover, radiation from computers or any other mobile gadgets can have a innumerable negative effects on the body such as; fertility issues with both men and women, skin burns,

## **Influence of Digital Revolution on Indian Education System**

rashes as well as other serious health conditions like cancer. The menaces from computer radiation come from both thermal and low-energy non-ionizing radiation, which stalks from the computer's internal functions and Wi-Fi connection (DeBaun & Debaun,2017).

Matters of privacy have become huge, as it becomes more difficult to control personal information in the digital and internet world. Intellectual property theft and piracy have made it more tough for creative people to make any money from their output. Media can be digitalized and then distributed across the internet very easily and the process seems impossible to control. Digital learning tries to transfer human communication to virtual environment. This method of learning is not suitable for people who need physical interaction. Moreover, too much of time spent in front of a computer screen may be harmful.

### **CONCLUSION**

The digitization of education in India is spreading into more and more areas. Therefore, it becomes necessary to critically analyze all its aspects, both advantages and disadvantages. The digital class transforms the education process, and cause universal interactivity between teacher and learners as well as among learners themselves, all around the world. This global interactivity causes mutual understanding between teacher and learner, and among the learners. Digital classroom also reduced the gap of qualification and knowledge of students in various geographical areas. Even in a far most areas, by having a computer and access to internet one can enter a digital classroom to use the same materials and same teachers that are available for those who live in big and developed cities and get the equal benefit. Hence, inequality is totally eradicated. It saves time and rapidly shares information to the people across the globe. Moreover, blended learning strategy, one of the pedagogies of digital learning was found to be more effective than the traditional method of teaching in enhancing critical thinking, problem solving, science process skills and science achievement. Like most technological advancements, the digital revolution has changed our lives in both positive and negative aspects. On critically analyzing the pros and cons of digital learning, the advantages outweighed the limitations. The positive aspects of digital learning must be considered for the educational wellbeing of the learners. However, it is definitely our job to attempt to alleviate the damages from the negative aspects.

### **REFERENCES**

- Ahuja, P. (2015). The Digital Revolution and Its Impact on Education. *International Journal of Business Management*. VOL. 2(1),2015.
- Biswas, G., & and Dibyendu. P. (2010). "An evaluative study on the open source digital library software for institutional repository: Special reference to Dspace and greenstone digital library." *International Journal of Library and Information Science* 2.2 001-010.
- DeBaun, D.T., Debaun, R.P. (2017). *Radiation Nation: The Fallout of Modern*. Icaro Innovations. ISBN 0998199605, 9780998199603
- Mashhadia, V.Z., Kargozarib, M.R. (2011). Influences of digital classrooms on education. *Procedia Computer Science* 3 (2011) 1178–1183.
- Krishnan, D. 2011.Effect of blended learning strategy on higher order thinking and learning science among secondary school students. Ph.D thesis, University of Mysore
- Qian,L., Lizhen,L., Hu,Y. (2007) "Analysis of Personalized Information Service System for Digital Libraries," *Information Technologies and Applications in Education*, 2007, ISITAE '07. First IEEE International Symposium on 23-25 Nov. 2007: 233,237.
- Singh,G.(2017).Press Information Bureau, Government of India Special Service and Features. 70 years of Independence Special Feature.

## Influence of Digital Revolution on Indian Education System

### **Website:**

Technopedia, <https://www.techopedia.com/definition/23371/digital-revolution>.  
<https://en.wikipedia.org/wiki/Guru>

### **Acknowledgements**

The author appreciates all those who participated in the study and helped to facilitate the research process.

### **Conflict of Interest**

The author declared no conflict of interest.

**How to cite this article:** D Rathidevi & M V Sudhakaran (2020). Influence of digital revolution on Indian education system. *International Journal of Indian Psychology*, 8(1), 464-469. DIP:18.01.059/20200801, DOI:10.25215/0801.059