



A STUDY FOR IMPACT OF DIGITAL TECHNOLOGY IN EDUCATION

Rimi Mondal

Former Student, department of Education, University of Kalyani, Nadia, West Bengal, 741235

ABSTRACT

Digital technology has affected almost every aspect of life today. And teaching-learning is no exception. The digital technologies such as ICT based (Mobile phone, Tablet, not book, Computer, laptop, Smart TV, projector, etc) and programmed learning (online courses, SWAYAM, Swayam Prabha, Mooc etc) have become increasingly popular in recent years. Learning in higher education has seen a paradigm shift with the onset of COVID-19. The sudden closure of all the campuses in India led to the unprecedented situation of completely shifting the teaching learning process to the online mood. India is a global leader in information and communication technology in other cutting edge domains, such as space. The digital India campaign is helping to transform the entire nation into a digitally empowered society and knowledge economy.

The effect of digital technology on teaching and learning is examined in this article, which is based on an analysis. The objective of this study is to understand the impact of digitization in the education sector and to highlight how it works. This is a descriptive study and this study is based on the analysis of secondary data only. All schools, colleges and universities today are focusing more on digital education. Especially since the time of COVID-19, the demand for this technology-based education has been strong. Online courses now have more demand than the traditional face-to-face courses.

KEYWORDS: Technology use, enhance learning, digitization in education.

INTRODUCTION

The contemporary era is mostly regarded as the technological era. In the field of education, technology is the application of scientific knowledge about learning and the conditions of learning to improve the effectiveness and efficiency of teaching and learning. When the whole country was under lockdown for COVID-19, e-learning was the best and only alternative for students to learn. In the present time, technology is playing a vital role in every aspect of human life. According to the current situation, India has been reached to the highest place in the field of education. Digitalization is advancing into the education system of India and is replacing the conventional classroom practice. Indian education framework has received creative aptitudes in order to arrive at the final destination and making reformist methodology towards problem-related phenomena.

OBJECTIVES OF THE STUDY

The main objective of this study is as follows-

- I. To understand the impact of digitalization in the education sector.
- II. To understand the impact of technology in education and technology of education in teaching-learning;
- III. To understand the digital education initiatives and bridging the Digital Divide.

RESEARCH METHODOLOGY

As per the requirements of the study, a descriptive nature is being adopted in the research design. The research study is totally based on a descriptive nature. Secondary sources and published articles were extensively used for the collection of data. Distinctively used sources were various web articles.

DATA COLLECTION

The research paper depends upon these secondary sources of information. To prepare the research paper, the required data is extensively used, as it is descriptive in nature.

Type of technology used in education

- Smartboards
- Classroom PC
- Projectors
- television
- CDS, VCD, DVD
- E-learning
- Slides
- Digital Device



Impact of digital Technology

- | | |
|---------------------------------|------------------------|
| i) Enhanceteachingandlearning | v) Upgradelearning, |
| ii) Globalization | vi) Knowledgegathering |
| iii) No geographicalLimitations | vii) Practicallearning |
| iv) Flexibleinlearning | viii) Classengagement |

Digital Technology in education

The digital divide in India is challenging the nation's current educational methods across its entire student body. Digital connectivity is more necessary than ever before in guaranteeing that students can sustain their studies while schools remain physically closed. Following are the key initiatives/ways taken by the Government of India to enhance and facilitate digital technology education activities.

1. National Digital Library (NDL)

In May 2016, The National Digital library of India is a project under Ministry of Education, Government of India. The target is to gather and collate metadata and supply full text index from several national and international digital libraries, furthermore as other relevant sources. It's a digital repository containing textbooks, articles, videos, audio books, lectures, simulations, fiction and every one different kinds of learning media. The NDLI provides freed from cost access to several books within the Indian languages and English.

2. EPG Pathshala

In 2015, e-PG Pathshala is an initiative of the MHRD under its National Mission on Education through ICT (NME-ICT) being executed by the UGC. The content and its quality being the key component of education system, top quality, curriculum-based, interactive e-content in 70 subjects across all disciplines of social sciences, arts, fine arts and humanities, natural & mathematical sciences, linguistics and languages are developed by the topic experts working in Indian universities and other R & D institutes across the country. Every subject had a team of man of science, paper coordinators, content writers, content reviewers, Language editors and multimedia team.

a. e-Adhyayan

e-Adhyayan could be a repository of e-Books for the Under-Graduate & Post-Graduate Courses. The e-Books are being derived from the e-text of e-PG Pathshala. The project is initiated by the University Grants Commission and Ministry of Human Resource Development, Government of India. The author / course coordinator of books is Indian experts. Currently, e-Adhyayan has 50 e-Books in Sociology, Library & informatics, engineering Science & IT. It's available in open access under Creative Commons platform. The platform of e-Books is pressbook which is open source. It's been deployed and customised by the INFLIBNET Centre. It also facilitates e-book publishing off-line, where author can write and publish his/her own book.

b. UGC-MOOC

UGC MOOCs- A vertical of Study Web of Active Learning for Young Aspiring Minds (SWAYAM) portal, UGC has launched MOOC initiated by the govt. of India with an aim to enable access, equity and quality within the domain of education for the aspirants.

c. e-Pathya

e-Pathya (Offline Access) is another vertical of e-Pathshala which is a software driven co package which helps students pursuing education (PG level) through distance learning yet as campus learning mode. This vertical also allows offline access to course content.

3. Shodhganga platform

In June 2009, The Shodhganga@INFLIBNET Centre provides a platform for research students to deposit their Ph.D. theses and make it available to the entire scholarly community in open access. The repository has the power to capture, index, store, disseminate and preserve ETDs submitted by the researchers.

4. e-Shodh Sindhu platform

e-Shodh Sindhu was formed with merger of three consortia, namely UGC-INFONET Digital Library Consortium, NLIST and INDEST-AICTE Consortium in December 2015. The most objective of the e-Shodh Sindhu: Consortia for instruction E-Resources is to supply access to qualitative electronic resources including full-text, bibliographic and factual databases to academic institutions at a lower rate of subscription.

5. e-yantra The genesis of e-Yantra was within the teaching of the Embedded Systems course at IIT Bombay through the space Education Program of IIT Bombay from 2003 to 2006. The goal is to harness the talent of young engineers to resolve problems using technology across a spread of domains such as: agriculture, manufacturing, defence, home, smart-city maintenance and repair industries. Within the context of e-Yantra there are such a large number of initiatives, such as Internship Program, e-Yantra Lab Setup Initiative, Based Training, etc. e-Yantra Robotics Competition, e-Yantra Summer antra Ideas Competition, e-Yantra Symposium, Task



6. Virtual Labs

The Government of India introduced a pilot virtual lab in 2009 and the main one in 2010 to enable undergraduate and post-graduate students (pursuing science and engineering courses) remotely access the labs and enhance their study experience. The virtual lab offers students a Learning Management System and various study aids such as video lectures, web resources, self-evaluate on and animated demonstrate ones.

7. Vidwanportal

In the year 1999, VIDWAN is the premier database of profiles of scientists/researchers and other faculty members working at leading academic institutions and other R & D organisation involved in teaching and research in India. It provides important information about expert's background, contact address, skills and accomplishments.

8. National Digital Educational Architecture (NDEAR)

In the Union Budget 2021-22, the Indian government established the National Digital Educational Architecture (NDEAR). National Digital Education Architecture (NDEAR) is federated, unbundled, interoperable, inclusive, accessible, evolving which aims to create and deliver diverse, relevant, contextual, innovative solutions that benefit students, teachers, parents, communities, administrators and result in timely implementation of policy.

9. PMeVIDYA Programme

The e-Vidya program begun in May 2020 in response to the COVID-19 pandemic. The Pradhan Mantri Vidya is an initiative by the Ministry of Education that will help in facilitating access to digital/online learning as well as teaching materials of various types among students and teachers.

10. DIKSHA

In September 2017, the government introduced DIKSHA. DIKSHA is an initiative of the National Council of Educational Research and Training (NCERT) under the aegis of the Ministry of Education, Government of India. DIKSHA is a unique initiative which leverages existing highly scalable and flexible digital infrastructures, while keeping teachers at the centre. It is built considering the whole teacher's life cycle - from the time student teachers enrol in Teacher Education Institutes (TEIS) to after they retire as teachers. DIKSHA can be accessed free of cost by anyone. It also offers more than 100 microservices as building blocks for the development of platforms and solutions. It is designed to support multiple languages and solutions. At present, it supports 18+ languages and various curricula of NCERT, CBSE and SCERT pan India.

11. SWAYAM

WAYAM is a programme initiated by Government of India on 2017 and designed to achieve the three cardinal principles of Education Policy viz., access, equity and quality. The objective of this effort is to take the best teaching learning resources to all, including the most disadvantaged. SWAYAM seeks to bridge the digital divide for students who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy.

12. SWAYAMPRABHHA

In 2017, The SWAYAMPRABHHA is a group of 22 DTH channels devoted to telecasting of high-quality educational programmes on 24X7 basis using the GSAT-15 satellite.

13. OnAirShiksha Vani

OnAirShiksha Vani, DAISY by NIOS for differently-abled, e-PathShala- Radio broadcasting is being used for children in remote areas who are not online (especially for grades 1 to 5).

14. Gyandoot

Gyandoot is an Intranet-based Government to Citizen (G2C) service delivery initiative started in the Dhar district of Madhya Pradesh in January 2000 with the twin objective of providing relevant information to the rural population and acting as an interface between the district administration and the people.

15. InternetSaathiProgram

Internet Saathi Program - The Internet Saathi Program was launched in 2015 by Google India and Tata Trusts. The aim of this project is to facilitate digital literacy among rural Indian women.

CONCLUSION

Overall, study on the effect of computing and emerging technology on teaching-learning consistently finds favourable outcomes. Apart from teaching, there is a touch of technology in every aspect of human life today. Today society is constantly changing. This variability is the law of nature. Due to the change in the flow of this rule, people have adopted this technology today. Technology



has taken place in every corner of the society today. Today technology is giving a chance to the backward students to move forward today. The positive steps taken by the Government of India have made the education system of students easier. This study will be very informative to the readers. Analysis of secondary information will influence the reader's mind towards technology-based learning. The progress of society is not a mere measure. Proper use of technology symbolizes the progress of society

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