



ORIGINAL RESEARCH PAPER

Education

DIGITIZATION OF INDIAN EDUCATION: GOVERNMENT INITIATIVES

KEY WORDS: Education; Digital Learning; Online learning; Challenges and scope; MOOCs;

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ABSTRACT

All of us have lately experienced the COVID19 pandemic. The global community as a whole has been impacted by the corona virus disease. Every aspect has been influenced, including education, economy, social life, etc. Digital technology is now being used in every industry. As a result of this technological shift, numerous stakeholders in our educational system are encountering a variety of problems and difficulties. The necessity of the hour is to increase digital agility through digital education. To ensure the success of digital education, instructors must receive adequate and effective training that enables them to feel at ease using these cutting-edge delivery systems. To fully profit from this style of instruction, this should be made available along with well-equipped infrastructure and internet connections in the most remote regions of the nation. The less fortunate members of society should have access to affordable electronic devices and technology, which will make online education more accessible and provide everyone with an equal chance. Between the student and the teacher, learning can be made more dynamic and interesting through this medium. The tremendous cultural and linguistic variety of India will be greatly helped by digital education. The present study summarizes government initiatives on fostering digital education, the scope and challenges faced by students in this virtual classroom environment. This paper primarily based on secondary sources of information that were found on numerous websites, academic papers, news pieces, and magazine articles.

INTRODUCTION

National Educational Policy 2020 has put utmost emphasize on digital education. Government is taking many initiatives to promote digital education. Digital education has the potential to improve educational quality and reach the wider population of our country. The abundance of digital technologies that are currently accessible has significantly improved students' educational experiences. In order to ensure that children develop knowledge, technology is also playing a critical role as a catalyst for fostering relationships between parents, instructors, and students - tapping into the domain. Education is no longer just controlled by blackboards, chalk, dusters, and textbooks thanks to the development of Ed-tech. In order to accommodate the nation's growing membership and educational demands, India has launched a number of programmes to offer MOOC courses. NPTEL, mooKIT, IITBX, and SWAYAM are currently used in India for the delivery of courses. The coronavirus epidemic is currently causing a catastrophe in the education sector. However, there are a number of issues with online education that need to be resolved.

GOVERNMENT INITIATIVES ON DIGITAL EDUCATION:

New digital platforms are being used in education in ways that have never been seen before. The fact that education is now more accessible than it was a few decades ago. it is one of the most significant ways that technology has revolutionised education. It is safe to assume that technology has altered the way that education is delivered in the modern world, from laptops to educational apps to online courses. Some of initiatives of the government of India are given below.

PME-Vidhya:

This comprehensive programme, which was unveiled on May 17, 2020, aims to integrate digital and online learning with educational initiatives for increased accessibility and reach of e-learning. It was directed at the nation's over 25 crore pupils in schools.

DIKSHA:

With the vision of "One Nation, One Digital Platform," DIKSHA: Digital Infrastructure for Knowledge Sharing was launched in 2017. DIKSHA is a nationwide platform that may be used to operate a web portal or mobile app for students in grades 1

through 12. It comprises online courses and tasks for teachers, as well as curriculum-related e-content.

SWAYAM Prabha TV:

With the slogan "One Class, One Channel," this venture features 32 channels that are dedicated to educational programming. The curriculum and themes are arranged similarly on DIKSHA for asynchronous use by anybody, anytime, and anywhere. The instructional programmes are broadcast and aired thanks to a partnership with Tata Sky and Airtel.

Vidya Daan:

Launched in April 2020, VidyaDaan's goal is to solicit funding and contributions from educational organisations, businesses, and individuals for the school's digital instructional tools. Assam, Goa, Kerala, Odisha, Punjab, Maharashtra, Gujrat, Telangana, and Chandigarh are productively sourcing content for VidyaDaan on DIKSHA alongside the CBSE and NCERT.

E-Pathshala:

This programme places equal emphasis on teachers, parents, and students. A online portal or mobile app can be used to access E-3500+ Pathshala's e-textbooks containing curriculum content in English, Sanskrit, Urdu, and Hindi.

National Digital Library Of India (NDLI):

The National Digital Library of India is a virtual library of learning resources that offers a variety of services to the learning community, including textbooks, articles, videos, audio books, lectures, simulations, fiction, and other types of learning media. It is not just a library with search and browse functionality. It is an initiative of the Indian Ministry of Education's National Mission on Education through Information and Communication Technology (NMEICT). The goal is to gather metadata from several national and international digital libraries as well as other pertinent sources, offer a full text index, and collect the metadata into one place. The NDLI offers free access to a large number of books and is built to hold material in any language. It also offers interface support for the ten most popular Indian languages. It was created, is run out of Indian Institute of Technology Kharagpur, and is maintained there.

National Repository Of Open Educational Resources (NROER):

NROER is developed by CIET, NCERT. It was launched during the National Conference on ICT (Information and Communication Technology) for School Education. NROER was launched on 13 August 2013 in New Delhi in collaboration with the Department of School Education and Literacy, Ministry of Human Resource Development, Government of India. NROER hosts large number educational resources in many subjects and in different Indian languages for Primary, Secondary and Senior Secondary classes. Resources are available in different formats like Video, Image, Audio, Document and Interactive. Apart from this all NCERT books are available in Flip book format. NROER is a collaborative platform, intend to reached the un-reached and institutions like SCERT, SIERT, SIE, Vigyan Prasar, CCERT, Gujarat Institute of Educational Technology (GIET), SIET and other stake holders have their share in the educational content.

Virtual Lab:

Under the auspices of the National Mission on Education through Information and Communication Technology (NMEICT), the Ministry of Human Resource Development (MHRD), Government of India, has launched the Virtual Labs project. IIT Delhi is the coordinating institute for this partnership initiative, which has twelve collaborating institutions. It represents a paradigm change for ICT-based education. This kind of initiative has been taken on for the first time in distant experimentation. Over 100 Virtual Labs were created for remote operation and viewing as part of the Virtual Labs initiative, each of which had about 700 web-enabled experiments.

Pragyatah:

The MoE created a set of rules called Pragyatah to assist schools in utilising technology. The recommendations include a variety of subjects. This covers the administration of digital resources as well as the use of technology in teaching and learning.

Limitations In Digital Education

There are a lot of challenges faced by people in online education in India. Some of these challenges which need to be overcome are:

1. Insufficient Digital Infrastructure

Here is still more work to be done in this area, despite the Government of India's initiative to build digital infrastructure. The two greatest issues are a fast internet connection and a reliable power source. India ranks 89th globally in terms of stability and speed of the internet. 5G networks technology is the requirement of today's which will increase the speed of downloading the data.

2. Language Barrier

India is a multilingual nation where the vast majority of people live in rural areas. The majority of online courses offer content in English. As a result, students who cannot speak English find it difficult to access language materials. Therefore, it is the responsibility of IT experts, teachers, administrators, language content producers, and content distributors to come together and provide a workable framework and common solution to the students who only know Indian languages.

3. Lack Of Motivation

The dropout rates is very high in online courses. Self motivation and discipline is required to complete the assignments and upload them timely. If you have difficulty working independently, staying organized and meeting deadlines, you might struggle in an online program.

4. Digital Competencies Of Teachers

For digital education to be successful, both teachers and students must possess digital competencies. The government

has to invest more money on educating our teachers on technology. A good understanding of technology enable teachers to deliver their contents in an effective manner.

5. Degrees With Questionable Credibility

Despite the fact that the market has begun to acknowledge online degrees, there are still many fake and unaccredited degrees being provided online. The number of con artists issuing bogus certificates devoid of credentials is on the rise. These frauds damage prospective students' trust in online programmes as well as the integrity of online certifications.

6. Minimal Social Interaction

There is virtually little direct interaction with the teacher and other students because online education can be accessed from home or any other convenient location. Dharendra Kumar (2010) claims that peer dialogue is quite scarce, particularly in self-paced courses. The majority of the conversation happens via email, chat rooms, or discussion groups. No campus atmosphere exists to encourage social contact. Therefore, you are unable to create any social connections that would aid to your life.

7. Practical Courses Are Not Suitable For Digital Education:

E-learning and digital content are incompatible with actual tertiary education activities. Although e-learning provides genuine session-related knowledge and preparation, the student does not assess their performance or real-world experience in the process.

Scopes In Digital Education

All parties involved in the online education sector, including business owners, educators, and students, are benefiting from the various opportunities presented by technological change. Some of the elements providing various opportunities in this area include:

1. Enhancing Teaching & Learning:

Digital technologies will improve the educational experience for all of our children and teenagers. Modern age pupils are quite familiar with digital technology and will support its further use in their education.

2. No Physical Limitations

The fundamental benefit of digital learning is that it is not constrained by geographical boundaries or by time constraints. It has access to more learning groups. According to their needs, students can access digital learning at any time, anywhere.

3. Value For Money

Because traditional education is more expensive than digital education, kids from economically disadvantaged backgrounds benefit more from digital education. The amount of money that students had to spend on textbooks for school was reduced because to digital learning. Due to lower costs, digital learning and e-learning are very cost-effective.

4. Scope For Educational Startups:

India's e-learning market has 1.6 million users and a value of \$247 million in 2016, according to a KPMG report. The market is anticipated to reach \$1.96 billion by 2021, and the user base is projected to increase by a factor of six to 9.6 million people. Only behind the United States is India's EdTech market the second-largest in the world. Entrepreneurs are investing heavily in online education since it is predicted to grow over the next five years as a result of the Digital India campaign and the declining cost of mobile data. Byju's has received \$50 million from the Chang Zuckerberg Initiative, Eruditus has received \$8.2 million from Bertelsmann India, and EduPristine has received \$10 million from Kaizen Management Advisors and DeVry Inc. Khan Academy is a nonprofit organisation that receives funding from foundations including The Bill and Melinda Gates Foundation, Google, and

ReedHastings, the creator ofNetflix.

5. More Participation

Compared to traditional learning, digital learning is more familiar to the learners. Through the use of interactive multimedia, students learn while having fun.

Recent events are putting pressure on the educational system to reform fundamentally in order to adapt to the rapidly shifting environment. The global disease outbreak has forced our educational system to replace traditional classroom instruction with modern technologies. It is well established that digital learning is an addition to traditional face-to-face education, not a replacement. Adopting digital learning methods alongside face-to-face learning methods will give the traditional educational system new life and allow it to expand its reach and coverage. The combination of these two approaches can offer vast and varied opportunities to students, educational institutions, and other stakeholders in general. Stakeholders may express reluctance and encounter several problems and challenges as new, cutting-edge technologies and approaches are introduced into the educational system. When learning on digital platforms, students face a variety of problems and obstacles, including a lack of digital infrastructure, technical difficulties, an unfriendly learning environment, a lack of a personalised approach, etc. To clear the way for the digitalization of education, the relevant authorities and educational institutions should address these problems and turn challenges into opportunities so that everyone may benefit from digital learning.

Digital learning is unquestionably a comprehensive method to teaching and learning as well as a new way to study. In actuality, it's a setting created through interaction, personal preference, and a variety of technology tools. Therefore, we can say that digitalizing education is undoubtedly necessary in this day and age to keep up with educational environments and systems around the globe. However, when implementing digital education in this crisis, we must also keep in mind that our children must not become overly dependent on technology and must not experience behavioural and physical imbalances. In addition, it is important to safeguard the relationship between teachers and students when drafting digital education policy. It is important to decide what kind of controls will prevent young people from accessing harmful information or information that could lead them astray toward violent or antisocial behaviour. Our youth are our most valuable resource, thus we must approach them with great care so that they can become capable and responsible citizens of India. In order to serve both the teacher and the learner, we should create a well-defined and purposeful online course.

REFERENCES

1. Jindal, Aman & Chahal, Bhupinder. (2020). Challenges and Opportunities for Online Education in India. *Pramana*. 8. 99.
2. Kumar, A. (2020). Digital Education: Vision, Perspectives and Problems in Changing Paradigms of NEP-2020. September, 1-2. <https://www.researchgate.net/publication/364050731>
3. (Title " Digital Learning in India : Issues , Challenges and Prospects " GOPALA K R Assistant Professor of Commerce Government First Grade College , Email: Gopalrkr@gmail.Com Mobile : 9902554571 RAMESHA R Assistant Professor of Commerce Government First, n.d.)
4. https://www.ies.ncsu.edu/wpcontent/uploads/sites/15/2015/08/Pros_and_Cons_of_Online_Education_by_Kumar-1.pdf
5. Top five digital learning tools for students and teachers - EducationWorld
6. Top 5 Digital Tools That Students Should Try in 2018 (edtechreview.in)
7. <https://www.dailypioneer.com/2022/columnists/digital-education-for-digital-india.html>
8. <https://pmevidya.education.gov.in/>
9. https://en.wikipedia.org/wiki/National_Digital_Library_of_India
10. https://en.wikipedia.org/wiki/National_Repository_of_Open_Educational_Resources
11. https://www.education.gov.in/sites/upload_files/mhrd/files/pragayata-guidelines_0.pdf
12. <https://www.vlab.co.in/about-us>