A STUDY ON DIGITAL EDUCATION IN INDIA AND GOVERNMENT INITIATIVES

Mr P. Bala Muralidhar
PG Coordinator & Assistant Professor
Dept. of Commerce (UG & PG)
Prabhat Kumar College, Contai Purba Medinipur,
West Bengal.

ABSTRACT

Digital education is the innovative incorporation of modern technology and digital tools in order to give assistance to the progress of teaching and learning. India is moving forward and well-progressing towards digital education. This is possible and supported by rising adoption of digitisation by universities and colleges, increasing internet penetration and rising demand from students. The Union Budget of 2021-22 has laid a major stress to give a strength to the digital infrastructure for education in India. To achieve this, it has announced to establish National Digital Educational Architecture (NDEAR) within the perspective of a "digital first" mindset. As of now, India has more than 560 million internet users in the country. The number is still growing exponentially. As per IAMAI-Kantar Cube report, it is estimated that active internet users in India will reach 900 million by 2025. It implies that the online world has become easily accessible for a major chunk of our population to use digital education. With the digital initiatives undertaken by the government, education in India is likely to witness a sea change in the forthcoming years. There is also increasing participation of private players in offering e-learning courses. This, along with government's effort, will give boost to strengthen digital education landscape of the country. This paper attempts to present the emphasis of Government on education and various initiatives taken by the Government for digital education in the country.

Keywords : Digital education, Government Initiatives, India, NDEAR.

INTRODUCTION

The world is continuously undergoes change and the various areas are also influenced by the change. There is no exemption even in the education sector. The digital learning platforms has evolved in this sector. This has a tremendous and colossal impact in educational institutions and has ultimately put the traditional methods in the back seat.

India is moving forward and well-progressing towards digital education. This is possible and supported by rising adoption of digitisation by universities and colleges, increasing internet penetration and rising demand from students. According to RedSeer Consulting, it is estimated that the online education market which consists higher education and lifelong learning market, in India will reach ~US$ 5 billion by 2025. This is due to the efforts of Government on designing online education programmes, giving strength to digital infrastructure across the country and providing them to the rising demand for improving skills among students.

The Digital education has been considerably driven by the efforts of government in strengthening digital infrastructure in the country, by including provision of internet connectivity in the remote areas. As per IAMAI-Kantar Cube report, it is estimated that active internet users in India will reach 900 million by 2025. This is up 45per cent over 622 million active internet users in 2020. The internet penetration in the country is also expected to reach by more than 55 per cent by 2025.

The Government of India has also launched the 'Digital India' initiative in July 2015, in order to strengthen online infrastructure and increase internet accessibility among people, such as, connecting rural areas to high-speed internet networks. It has also started e-Education initiative as a part of 'Digital India' initiative. It has been launched in order to provide online education in remote and urban areas with the help of smartphones, apps and internet services.

DIGITAL EDUCATION

Digital education is the innovative incorporation of modern technology and digital tools in order to give assistance to the progress of teaching and learning. It is also known by other names such as Technology Enhanced Learning (TEL), digital learning, or e-learning. Digital education is the technique forward for pursuing education through the means of technology and digital devices.

Digital learning can be stated as such type of learning or instructional practice in which technology and tools are used throughout the learning process. These could vary from use of smartphones, tablets and smart boards in classrooms to sophisticated Artificial

Intelligence led tools for adaptive learning. Online learning or e-learning are considered as practices under digital learning. However, the notion of digital learning covers the entire range of teaching and learning pedagogy from a blended learning environment to a personalized learning approach.

Digital learning tools are entering in educational set-ups at a rapid pace. It revolutionizes the traditional chalk-black board system of learning prevalent in classrooms. Nobody can deny that this trend is definitely more evident in the urban areas and metros. On the other side, classrooms in the rural areas are also increasingly using digital tools such as smartphones, and videos to enhance the learning experience.

OBJECTIVES OF STUDY

1. To study the emphasis of Government on digitisation.

2. To study about National Digital Educational Architecture (NDEAR)

3. To study major government initiatives for digital education.

RESEARCH METHODOLOGY

The present study is based mainly on the secondary sources of data which is collected from various websites relating to digital education in India and the major initiatives undertaken by the Government for digital education.

RATIONALE OF STUDY

As per IAMAI-Kantar Cube report, it is estimated that active internet users in India will reach 900 million by 2025. With this, the Government of India has given topmost priority to the digitisation of education in India. The Union Budget of 2021-22 has laid a major stress to give strength to the digital infrastructure for education in India. With the digital initiatives undertaken by the government, education in India is likely to witness a sea change in the forthcoming years.

EMPHASIS OF GOVERNMENT ON DIGITISATION

The Government of India has realized that rapid development is not possible without widespread education. So it has chalked out a new National Education Policy (NEP) in

2020 which gives emphasis on digitisation, in addition to the use of technology in education. It also emphasizes on edtech for fostering education, predominantly in the rural areas. This was mainly undertaken to provide quality education to all parts of the country, not only in the Tier-2 and 3 cities but also in villages. The government has realized that technology has the power to enter small towns and villages and provide access to quality teachers. The internet penetration in the country is also expected to reach by more than 55 per cent by 2025. With this, the Government of India has given topmost priority to the digitisation of education in India. For a long time, we have depended on traditional methods of teaching. In those methods, a teacher used to address a group of students in a four-walled classroom. However, with the advent of the Fourth Industrial Revolution, we have started a transition towards a world that depends heavily on digital technology to make things simpler and easier. Besides, several online learning platforms have mushroomed up in the past few years. This has made learning easier, simpler, and convenient to the learners. As of now, India has more than 560 million internet users in the country. The number is still growing exponentially. It implies that the online world has become easily accessible for a major chunk of our population to use digital education. The Union Budget of 2021-22 apportioned ₹ 93,224.31 crore to the Ministry of Education. It was a surge of over ₹ 8,100 crore from the revised estimates for the current fiscal. Out of this, the Department of Higher Education was apportioned ₹ 38,350.65 crore.

NATIONAL DIGITAL EDUCATIONAL ARCHITECTURE (NDEAR)

The Union Budget of 2021-22 has laid a major stress to give a strength to the digital infrastructure for education in India. To achieve this, it has announced to establish National Digital Educational Architecture (NDEAR) within the perspective of a "digital first" mindset. It will help to support teaching and learning activities. It will also strenghthen educational planning, governance system, administrative activities of the Centre and states or Union Territories. It will offer diverse ecosystem of education architecture for development of digital infrastructure. This will be done in the line of a federated but interoperable system which will guarantee autonomy of all related stakeholders, especially states and UTs. NDEAR will benefit not only Centre but also

States in planning, governance system, administrative activities of the Centre and states or Union Territories. Besides, teachers, students and schools will get a seamless digital learning experience. The institutional arrangement, governance structure, technology system and data of NDEAR will be beneficial to the entire student and teacher community.

MAJOR INITIATIVES UNDERTAKEN BY GOVERNMENT FOR DIGITAL EDUCATION

PM eVIDYA programme

PM eVIDYA was launched on May 17, 2020 for multimode access to digital or online education. On realising the importance of digital education in India, the Government of India has launched this programme. This programme will also help to guarantee continuity of school education even in extraordinary situations such as the COVID-19 pandemic. As a widespread initiative, PM eVIDYA visualizes to unify all efforts related to digital, online and on-air education, benefitting approximately 25 crore school going children throughout the country.

DIKSHA (Digital Infrastructure for Knowledge Sharing)

DIKSHA was launched in September 2017. It was a national platform for school education in India. A total of 35 states and Union Territories across India has adopted this program. At present, it supports more than 18 Indian languages.

SWAYAM (Study Webs of Active Learning for Young Aspiring Minds)

As per the Digital India initiative, National Institute of Open Schooling (NIOS) has been recognized as one of the partners for the National MOOC (Massive Open Online Courses) initiatives for (SWAYAM). The main objective of this effort is to provide the best teaching learning resources to all learners, including the most disadvantaged group. The NCERT has launched 34 online courses to make available for students of Classes XI and XII and also teachers on the SWAYAM portal.

SWAYAM PRABHA

The SWAYAM PRABHA is a cluster of 34 DTH channels dedicated to broadcast educational programmes on day and night, 24x7 basis. Every day, a new content is broadcasted for at least four hours and this is repeated five times a day thereafter. This gives the students a chance to select the time of their convenience. The content is delivered by National Programme on Technology Enhanced Learning (NPTEL) and other institutes like IITs, UGC, CEC, IGNOU, NCERT and NIOS.

ePathshala portal

The ePathshala portal and related mobile apps are a storehouse of collection of various audios, videos, ePubs, flipbooks etc related to teaching and learning. Resources can be accessed through digital modes like laptop, desktop, tablets and smartphones. Resources are available in languages - Hindi, English and Urdu.

NISHTHA (National Initiative for School Heads' and Teachers' Holistic Advancement)

NISHTHA is a capacity building programme. It is designed for improving the quality of school education in the country through Integrated Teacher Training. The aim of this programme is to build and develop competencies among all teachers and Heads of schools at the elementary stage. The teacher training modules have been modified for online dissemination during pandemic.

OLabs

The OLabs are developed on the idea that laboratory experiments can be taught by taking the help of the Internet, more efficiently with less expenses. The labs can also be made available to students in those situations when there is no chance to access to physical labs or where equipment is not available due to its availability being scarce or costly. The content is aligned to NCERT or CBSE and state board syllabus in the subjects like physics, chemistry, and biology from Class 9 to Class 12 and English and Maths lessons for Classes 9 and 10.

Virtual Labs

Virtual Labs offer remote-access to laboratories in various disciplines of science and engineering at the undergraduate level and post graduate level of study. The students can avail the benefit of various tools for learning to obtain entire Learning Management System via Virtual Labs. These include additional web-resources, video-lectures, demonstrations through animations and self evaluation.

NDLI (National Digital Online Library)

NDLI is a virtual depository of learning resources. It provides a host of services for the learner community. The Ministry of Education has sponsored it. It has mentored this initiative through its wing National Mission on Education through Information and Communication Technology (NMEICT). It has more than 50 million learning resources.

NROER (National Repository of Open Educational Resource)

NROER is a collaborative platform. It gathers everyone those who are interested in school and teacher education. The project is managed by the Central Institute of Educational Technology, NCERT under the guidance of department of school education and literacy.

Special e-content for students with disabilities

NIOS provides content for students with disabilities. The content is in Indian sign language for hearing impaired learners and in case of visually impaired learners, it is in the form of ePub and DAISY enabled 'talking books'. As per available reports, NIOS has created more than 270 videos in sign language in seven subjects in order to provide educational access to learners at secondary level and on yoga courses.

MVV (Mukta Vidya Vani)

MVV is an open education radio facility for providing informational and educational content. NIOS organises live interactive web streaming of Personal Contact Programmes through this MVV. These are in various subjects of secondary, senior secondary and vocational courses.

Shiksha Vaani

Shiksha Vaani is a learning initiative of CBSE which is based on audio-based learning. It is made available via Android app store. The podcasts has under its study various subjects at the secondary and senior secondary levels and are available in both mediums - English and Hindi.

CONCLUSION

With the digital initiatives undertaken by the government, education in India is likely to witness a sea change in the forthcoming years. Besides, the government, by all means, trying hard with rapid pace to evolve with the most sophisticated educational technologies so that the digital landscape of the nation be transformed . As social distancing is still in vogue amidst the COVID – 19 pandemic, an increasing number of educational institutions continue to move fully online mode teaching to facilitate students. This absolutely indicates that digital education is the future and will prepare the way for advance learning methods in edtech. According to the UNESCO, India is anticipated to join eight other countries in its drive to speed up digital learning and get benefit from the global digital education initiative. These countries are Brazil, China, Bangladesh, Egypt, Mexico, Pakistan, Nigeria and Indonesia. All these countries jointly expected to transform themselves from a traditional education approach towards digital education approach and generate more prospects in the digital education sector globally. There is also increasing participation of private players in offering e-learning courses. This, along with government's effort, will give boost to strengthen digital education landscape of the country. This is expected to boost digital education in the country to empower learners in every field.

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