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# THE ROLE OF DIGITAL INNOVATIVE TECHNOLOGIES IN EDUCATION SYSTEM IN INDIA

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**Abstract:** Education is one of the main fundamental rights in our country. India's literacy rates have consistently moved up since independence. Indian citizens have very good knowledge of English, which makes them employable across the globe. Indians have made some wonderful discoveries over the years. Innovation is the key to the progress of our country and the whole world. Innovation plays a very important role in the field of education too. The Indian government launched the digital education campaign to move in a new direction and ensure that education services are made electronically accessible to students through improved online infrastructure. This paper is focused largely on secondary data. These papers discuss the awareness of technologies in education, various online learning software, and the benefits of digital technologies in education. Equally important, technology can represent education in ways that help students understand the latest concepts and ideas. The education technology also enables teachers to integrate project-based learning. With guidance from effective teachers, students at different levels can use these tools to construct knowledge and develop skills required in modern society, such as presentation skills and analytical skills.

**Keywords—** Innovation, Digital, Technologies and Education.

## I. INTRODUCTION

The Indian government launched the digital education campaign to move in a new direction and ensure that

education services are made electronically accessible to students through improved online infrastructure.

Digital education is a technique or method of learning that involves technology and digital devices. This is a new and broad technical sphere that will assist any student in gaining knowledge and information from anywhere in the country. It is believed that digital education in India is the future of education and learning. Various channels have been defined by the government of India for a widespread use of sources and means to provide education to different corners of the country. Discussed further in this article are the channels and initiatives taken up by the government for digital education in India. Education is a collaborative enterprise. This extends to online education as well. In order to teach students about digital safety and citizenship, administrators, teachers, and parents need to work together. In this way, schools can better protect students from danger and better prepare them for their futures. In the linked article, aspirants can also learn about the advantages, objectives, and challenges of the Digital India campaign launched by the Government of India.

## II. OBJECTIVE OF THE STUDY

- To create awareness about digital technologies in education
- Knowing about the various online learning software available for the students
- The benefits of Digital technologies in education.
- Present Impact DIKSHA on School Education in India



### III. RESEARCH METHODOLOGY

This research paper is conceptual and Exploratory in nature. In order to meet such objective secondary method is adopted. The secondary data was collected through books, periodicals, and journal and published material related digital learning for the study.

#### 1. To create awareness about digital technologies in education

##### ➤ Encouraging self-learning:

Digital literacy cannot be taught through traditional means of learning. Exploring content by your self will promote finding the authentic content that is lost behind misinformation. Self-learning also improves one's evaluation skills, which is vital in the long run.

##### ➤ Creating an online resource guide:

For online learners, it is important to differentiate between misinformation or opinion-based content and fact-based content. This will invigorate them to verify the information by going through numerous websites before they retain the information or share it with other people. So, creating an online resource guide can help.

##### ➤ Digital analytics:

This helps analyses the qualitative and quantitative data of a website and gives a clear vision to analyses how consumers are behaving on that particular website and target your content viewers based on certain characteristics. With digital analytics, companies also understand scope for improvements.

##### ▪ Search Engine Optimization (SEO):

An important tool that optimises a website's content in a way that shows the website at the top of the search results. SEO mainly helps the searchers to identify the genuineness of every content.

##### ▪ Live events:

Online events using a variety of tools and sites offer a chance to interact remotely with others, while webinars are a great way to spread awareness across age groups.

##### ▪ Creating an online digital assessment platform:

Digital users need to test new technologies and get acquainted with Learning Management Systems. Digital users can learn to solve different problems using the LMS metrics, online assessment, and online surveys to bridge the knowledge and skill gaps of online resourcing.

##### ▪ Learner-generated e-learning content:

Digital literacy can develop an online learner's performance. Encouraging them to showcase their work by creating e-blogs

and virtual presentations will compel them to research using online tools.

#### 2. Various online learning software available for the students

##### • Flipped/Digital Classrooms

With the help of this class, teacher may be able to capture the student's full strength by digital screen. It has increased engagement of the students due to combination of various instructional styles. Though this class every student may be able to acquire the world class education in more interesting, enjoyable and personalized manner. However, the aim of an educator must be to generate such environment so that every student will be eager to study.

##### • Learning Based on the Videos

This part of digital education has not only geared up the Indian education system but also created the environment of entertaining, exploring and engaging via various wonderful apps, interactive software, videos, podcasts and e books and online electronic boards.

• **MOOCS** i.e. Massive open online course It is an online course in which a lot of participant may participate and open access via websites or links. After USA, India is the second biggest market for MOOCs due to huge population. To bring the revolution in the field of education, it may be the gateway for Indians. Indeed, we may avail high quality education though the distant learning programmed.

• **K12 Sector Learning through Game** It is a terminology used in K-12 school as Kindergarten through XII grade. It is being contributed and promoted by various start-up companies. It creates the game based educational learning enabling the learner to easily get the word of education in India.

• **Google Classroom** It is a free web service available for schools to help in drafting, mass distribution of assignments and notes and grading them in a paperless form. In this class room teacher may post study materials which may be reviewed by the student at home in the free time. It also makes learning very easy and streamlined because file may be easily shared between teachers and students as well as student may post their queries relating to the lecture and get the reply not only from the teacher but also from the students

• **E-Pathshala** This is a portal launched by the HRD and NCERT on November, 2015 to generate a gigantic educational reserve of various videos, audios, textbooks, periodicals and various types of printed and non-printed for teachers, parents, researchers, students and educators which is available on Android, Windows platforms etc. it allows the students and teachers to download them to read offline in their mobile/laptop as per the capacity of their instrument.

• **Kahoot** It is a game based learning platform. It is a multiple-choice quiz, may be assessed by a web browser. In this platform, materials are projected in the classroom and questions are answered by the students i.e. playing and



learning at the same time. It creates a dynamic, and fun educational environment by enhancing students engagement.

- **BYJU's** It is a leading Edu tech startup in India. It is a combination of gamification techniques which engage the Math and Science students specially to learn with fun. In this technology or app, teachers use a combination of various mediums, tools and interactive formats to teach the concept to the student in the most personalized manner.

### 3. Present Impact DIKSHA on School Education in India

DIKSHA is the 'One nation: One digital platform' for school education in India. Digital Infrastructure for Knowledge Sharing (DIKSHA) portal and mobile app created by MoE is a storehouse of a large number of eBooks and e-Contents created by States/UTs and National level organizations. The e-Textbooks of NCERT/ states and related e-Contents, mapped with QR Codes, are available on DIKSHA, which can be accessed at <https://diksha.gov.in/> DIKSHA is being transformed into a platform for the coherence of access with TV and radio. DIKSHA is designed to inherently support states/UTs and other school boards to exercise autonomy, independence, and choice to craft and run learning programs to suit their needs and achieve their goals.

E-Content is available in 32 Indian languages on DIKSHA: Hindi, Malayalam, Marathi, Bhojpuri, Lepcha, Halbi, Tamil, Bodo, Konkani, Urdu, Sanskrit, Gujarati, Mythili, Sargujia, Kannada, Brij, Odia, Awadhi, Khaasi, Chhattisgarhi, Punjabi, Telugu, Gondi-Dantewada, Gondi-Kanker, Bundelkhandi, Manipuri, Kudukh, Bhutia, English, Bangla, Mizo and Marathi.

Initiatives include

- DIKSHA is the nation's digital infrastructure for providing quality e-content for school education in states/UTs: and QR coded Energized Textbooks for all grades (one nation, one digital platform)
- Access through TV channels: One earmarked TV channel per class from 1 to 12 (One class, One channel)
- Extensive use of Radio, Community radio, and CBSE Podcast- Shiksha Vani
- Special e-content for visually and hearing impaired developed on Digitally Accessible Information System (DAISY) and in sign language on NIOS website/ YouTube

### 4. Benefits of Digital technologies in education.

- **Lack of Physical Boundaries:** In digital learning, there is no locational and time restrictions which is in a face to face learning system. In this learning, learners are able to attend the session anytime, anywhere according to his desire or facility or comfort.

- **No Geographical Limitations:** Now – a- days, online and distance education have become more important due to lack of being present physically in the classroom. Various foreign universities have begun online degree courses what may be

joined by the students from India also. Therefore, digitalization of education has no boundaries for the thirsted students for knowledge.

- **Smarter Students** In digital learning, students are able to develop effective and self directed learning skills with the help of various available tools and technologies. Digital learning also sharpens the critical thinking and learning skills of a students through analytical reasoning, open end questions with imagination and logic instead of just memorizing notes or textbooks temporarily. Students are also learning the cooperation and team work by group work.

- **Self-Motivated and More Accountable:** With the help of digital learning tools and techniques, students are being more engaged and interested in growing their knowledge. Therefore, they often offer a more interesting and involving way to digest information. It always reflects in their retention rate as well as their test scores. Therefore, student may improve their motivation and accountability.

- **Comfort Zone for Learners:** In digital learning, we may study at any time which suits us as per our comforts as compared to the traditional class room in which every student has to present in the class room when the teacher I teaching.

- **Parents and Educators involvements:** Teachers may create and manage various groups with the help of social learning platforms. Digital learning also benefits of tutoring to individual and small groups at the time of freeing up. There is also an opportunity to the educator to join various online professional learning communities to ask questions as well as to share tips or stay connected with a global educator" community. Parents may also explore online learning activities with their child which can serve as an extension to what they are learning in their classrooms.

- **Cost Effectiveness:** Digital education is cost effective as compared to traditional learning due to not paying a huge amount to acquire textbooks for school and college. In real sense, text books often become obsolete after a certain period of time.

### THE FUTURE OF DIGITAL LEARNING

With the Digital India programmer's vision to transform India into a digitally empowered society and knowledge economy, the education sector in India is poised to witness major growth in the years to come. Technology-led reach and easy access will bring about a socio-economic difference in the lives of Indian learners.

### IV. SUGGESTION:

Digital India should be implemented along with the traditional learning methodologies in the education system. Writing is one of the best and natural powerful creativity tools and it should be preserved from the storm of Digital India. With the lightening of the speed of market competition, Digital India is need of the hour with extra precautions



## V. CONCLUSION

These papers explain the role of education technology in adopting and representing modern education in ways that help students understand the latest concepts and ideas. The education technology also enables teachers to integrate project-based learning. With guidance from effective teachers, students at different levels can use these tools to construct knowledge and develop skills required in modern society, such as presentation skills and analytical skills. digital learning tools and technology in higher education but also for modern careers by helping them to acquire skills that include problem-solving, familiarity with emerging technologies, and self-motivation. Really, it is an environment that is made by collaboration, choice, and an array of technological resources. As a result, we can conclude that, in order to align the educational system and environment with the rest of the world, digitalization of education is unquestionably necessary. However, when implementing digital education in this pandemic, we must also keep in mind that our youth must not become overly reliant on this electronic medium, and they must be protected from behavioural and physical imbalances. At the same time, policies relating to digital education must be drafted in such a manner that the relationship between teacher and student may be protected. Our youth are our human assets, so we must tackle them very carefully to convert them into capable and responsible citizens of India.

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