



**Aims to Transform India into a digitally empowered Society**

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**Abstract:**

*Digital education has emerged as a transformative force in India's educational landscape. The availability of smartphones and internet connectivity has made learning transcend traditional boundaries. Digital education offers students access to a vast array of educational resources. It has revolutionized teaching methods, making education more engaging, accessible, and inclusive. This article explores the impact of digital education in India. It has highlighted its potential to bridge educational gaps and shape the future of education in the country. Digital education is meant by the use of digital tools and technology, including the internet and other ICT devices, in an innovative manner to enhance the teaching and learning experience to make education more interactive, immersive, far-reaching, and inclusive. Digital education is also known by popular names such as e-education in India, e-Learning and Technology enhanced learning.*

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**Keywords:** *Digital Education, Virtual education, technology and digital devices.*

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## **Introduction:**

Digital education is essentially the future of education all over the world, and the same applies to India as well. This is a Revolutionary initiative that will help millions of people, especially school-going students, in attaining knowledge and shaping a better future for themselves. Looking at the broad and immense future of Digital Education Technology, the Government of India is promoting digital education very aggressively and is trying to make sure of its universal availability throughout the country.

## **Ministry of Human Resources Development (MHRD) – Initiatives for Digital Education**

1. A comprehensive initiative called PM eVidya was announced on May 17, 2020, which aims to unify all efforts related to digital/online/on-air education to enable equitable multi-mode access to education.
2. It is envisaged that it will benefit nearly 25 crore school going children across the country.
3. One of the most important initiatives of MHRD is DIKSHA (Digital Infrastructure for Knowledge Sharing).

### **DIKSHA (Digital Infrastructure for Knowledge Sharing): e-Learning**

1. As part of PM eVidya announced under the Atma Nirbhar Bharat programme, DIKSHA is the ‘one nation; one digital platform’ for school education in India.
2. It was launched in 2017
3. It is a national platform available for schools in all states
4. DIKSHA is available for grades from 1 to 12.
5. DIKSHA can be accessed through mobile application and web portal.

### **DIKSHA (Digital Infrastructure for Knowledge Sharing) – What Does it Contain?**

1. Courses for Teachers, quizzes and others
2. Lots of e-content will be provided which are aligned with the curriculum. Large number of case studies and solutions will be provided with the help of Energised Textbooks (ETB’s) which are QR coded.
3. VidyaDaan was launched in April, 2020.

4. It is a content contribution program at national level, that makes use of the DIKSHA platform and tools, it allows donation or contribution of e-learning resources for school education by experts, private bodies, and educational bodies.

### **Aim and Goals of Digital Education in India**

- The aim of digital education in India is to make learning accessible to all. This is regardless of geographical location or socio-economic background.
- Digital education aims to enhance the quality of education. It provides interactive and engaging learning experiences through the use of technology.
- Digital education aims to bridge the educational divide by reaching remote areas.
- Digital education aims to develop high-quality electronic content in local languages. This caters to the linguistic diversity of India and ensures that language is not a barrier to learning.
- The goal of digital education is to provide flexibility in learning. It allows students to access educational resources anytime and anywhere.
- Digital education aims to promote digital literacy among students and teachers.
- Digital education aims to personalize the learning experience. It utilizes technology to adapt to individual learning styles and paces.
- Digital education encourages innovation and creativity among students. It provides them with access to a wide range of digital resources for exploration.

### **Importance of Digital Education in India**

- Digital education provides access to learning materials and resources from anywhere. It makes education accessible to students irrespective of their geographical location.
- With digital education, students can learn at their own pace and convenience. They have the flexibility to choose when and where they want to study.
- Digital education incorporates interactive multimedia elements. This includes videos, animations, and quizzes. This makes learning more engaging and interactive for students.
- Through digital platforms, students have access to a wide range of learning resources. This abundance of resources expands their knowledge base.
- Digital education encourages the development of digital literacy and technology skills. Students learn how to:
  - navigate online platforms,

- use productivity tools, and
- Collaborate digitally.
- Digital education eliminates the need for physical infrastructure. This reduces the costs associated with textbooks, transportation, and classroom maintenance. It makes education more affordable and accessible to a larger population.
- Digital education enables lifelong learning opportunities. Students can continue their education beyond traditional classroom settings. They can access online courses and webinars to upgrade their skills and knowledge.
- Digital education has the potential to bridge educational gaps by reaching remote areas. It promotes inclusivity and equal opportunities for all.

### **Advantages of Digital Education in India**

Digital education in India offers several advantages that are listed below:

- **Wider Reach:** Digital education can reach far-flung places using the internet, satellite, and digital devices. It ensures that quality education is accessible in every corner of the country.
- **Flexibility:** Digital education provides flexible study hours. It allows students to balance their studies with other responsibilities. This flexibility helps in reducing dropouts caused by economic activities or household work.
- **Cost-Effective:** Digital education has revolutionized access to quality education. It has made education affordable and accessible to all, including economically disadvantaged students. Many government initiatives in digital education are available free of cost.
- **Wide Variety of Courses:** Digital education offers a wide range of courses on various subjects. Students have the freedom to choose courses based on their interests and excel in their desired fields.
- **Interactive and Personal Learning Experience:** Digital education offers an interactive learning experience through animations and personalized learning. Students can enjoy engaging lessons and receive one-on-one doubt-clearing sessions. This caters to their unique requirements and helps them reach their full potential.

## Challenges with Digital Education in India

Undoubtedly there are numerous benefits of digital education in India, but that does not provide us with the liberty to overlook the challenges of this new and emerging system of education. Following are some of the challenges faced by Digital education in India

### Digital Divide

- Whenever we think of digital education, a few basic things come to mind, like- the internet, technology, and gadgets.
- Ironically these basics are not available to a majority of rural Indians, who account for almost 69% of the Indian population.
- Most people are not familiar with the technology and do not have access to the gadgets required for learning through Digital education.
- Moreover, there is a large part of the country where regular high-speed internet connectivity has still not been reached.
- All these constitute the digital divide present in urban and rural and rich and poor India, which is the major hurdle for Digital education in India.

### Language Barrier

- India is a country with huge linguistic diversity. There are 22 scheduled languages in the country, along with many other important languages.
- This presents a stiff challenge as most of the content available on digital platforms is either in Hindi or English.
- This primarily affects school children who are much more comfortable in their mother tongue or native language.

### Children with special needs (CWSN)

- Children with special needs require special attention and care in education.
- Moreover, teachers also need to be trained in Indians Sign Language and other modules to connect properly with these specially-abled students.

### Lack of Training and Communication

- In order to explore digital education, one must be trained in accordance with the technology being used to get the maximum benefit out of it.
- Frankly, most teachers are not fully trained to teach on digital platforms and consequently face constant problems while taking classes.
- This also disturbs the rhythm of students and makes the whole experience boring, which was otherwise expected to be a fun learning experience.

### Health Issues

- Digital education requires high screen time which puts a lot of stress on the eyes.
- Children less than 6 years of age are more prone to developing eye-sight-related problems due to this issue.
- Additionally, there are other issues, including headaches and wrong posture resulting in neck pain and back pain.

### Digital Education in India - Way Forward

Today there is an urgent need to move forward by keeping in mind all the challenges and potentials of digital education. The following are the points that can help us in our way forward of digital education in India.

- A constantly evolving digital education ecosystem is needed as technology advancement is taking place at a rapid pace.
- The main focus of digital education in India should only be on the learning aspect.
- Vocational training and skill development are the other areas where greater emphasis should be given.
- Teachers and students should be provided with basic training regarding digital education technology so as to realize its full potential of it.
- Making digital education in India cost-effective is another important aspect of making it reach the masses.
- Interconnecting various digital education platforms and synergizing them will also be of great help.
- Bridging the digital divide and plugging all other gaps, along with establishing a robust monitoring ecosystem, are crucial for a bright future of digital education in India.

### **Potential Disadvantages:**

- Remote learning can reduce engagement and interaction and lead to a lack of socialization, which can potentially decrease a student's social competence or skills, such as their ability to cooperate with others.
- A home or online environment may potentially be more distracting or disrupting than a physical school environment.
- Organizing an online school may be more expensive and more complicated to organize or lead.
- Those without access to technology or devices would not have access to virtual education. Although some schools may offer students borrowed devices, those who do not have access can easily fall behind.
- Expert Teaching: Online schools employ well-trained educators who leverage digital platforms to deliver quality education.
- Interactive Doubt Sessions: They facilitate direct interaction between students and teachers, ensuring personalized attention.
- Digital Literacy: Students become proficient with digital tools, an essential skill in today's technology-driven world.
- Parental Engagement: Online education fosters a closer connection between teachers, students, and their families.
- Continuous Improvement: The competitive nature of online schools drives them to innovate and enhance their offerings constantly.
- Many virtual schools are relatively new and inexperienced, and therefore may be unfit for educating students properly.
- Technology or the Internet can be more unpredictable since it may be vulnerable to power outages, Internet outages, hacks, exploits, online trolling, glitches, or errors that can potentially be more difficult to fix or deal with when online.
- Potential employers may be skeptical of the credibility of online degrees and virtual programs.
- Cheating online may be easier or more tempting since online resources may be more accessible and restrictions or consequences may be more lenient. The increased anonymity online may further encourage or allow the continuance of misbehavior such as trolling.
- Online schools may be too lenient or disengaging, thus may potentially encourage or harbor potentially damaging and undisciplined behavior that could threaten a student's future or career.
- Not using the physical tools might diminish a student's ability or competence.

- Online can be potentially limiting since physical activities or hands on activities, specifically for courses like physical education, Art, and Chemistry, may be more difficult to engage in or occur less frequent. Online classes might take away the value of the active elements that some courses require, and do not offer the same teacher-student relationships. Students might also not experience the same critical thinking, observation, and creative skills.
- Because online learning has 24-hour flexibility, work-life boundaries can be difficult to establish, which can cause mental and emotional health issues to arise.
- The immediate availability of AI technologies to assist with students' coursework leads to less interactions with course staff. This also leads to the student not properly learning the material and not properly developing study skills.
- For students with certain intellectual and/or physical disabilities, online learning platforms can be difficult to access and use.

## Conclusion

Digital education has the potential to revolutionize the entire education sector of the country and transform India into a knowledge economy. The need of the hour is to stick to the basics and stay abreast with constantly evolving digital education technology, and better internet infrastructure clubbed with accessible and affordable gadgets will keep India on the right track to achieving universal education.

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