

DIGITAL EDUCATION: ENSURING EQUITABLE USE OF TECHNOLOGY

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ABSTRACT

Education is fundamental for achieving full human potential, developing an equitable society, and promoting national development. India is a global leader in information and communication technology and in other cutting-edge domains. The Digital India Campaign is helping to transform the entire nation into a digitally empowered society and knowledge economy. Education on one hand will play a critical role in this transformation, technology itself on the other hand, will play an important role in the improvement of educational processes and outcomes. Thus, the relationship between technology and education at all levels is bidirectional. The proliferation of digital technologies in recent times is bringing radical changes in the way education is being delivered and received. The outreach of educational programs is improving day by day with the digitalization of education. However, the benefits of online/digital education cannot be leveraged unless the digital divide is eliminated. It is important that the use of technology for online and digital education adequately addresses concerns of equity. This paper delves into the trends of digital education in India, equitable access to technology for eliminating the digital divide and the various blockers that hinders and enablers that promote acquisition of equitable digital education.

Keywords: *Equitable Society, National Development, Information and Communication Technology.*

Introduction

The global education development agenda reflected in the Goal 4 (SDG4) of the 2030 Agenda for Sustainable Development, adopted by India in 2015 - seeks to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" by 2030. In this regard, the National Education Policy 2020 recognizes the importance of leveraging the advantages of technology to improve multiple aspects of education to meet the current and future challenges in providing quality education for all. New circumstances and realities require new initiatives. The recent rise in epidemics and pandemics necessitates alternative modes of quality education whenever and wherever traditional and in-person modes of education are not possible. This has brought 'Digital education' into prominence that is providing both teachers and students new opportunities to teach and learn thereby ensuring greater participation in the overall learning process.

Digital Education

It is the innovative use of tools and technologies during teaching and learning to enhance the learning experience. It is a combination of technology with digital content and instruction that gives students an element of control over time, pace and place.

Background of Digital Education

The roots of early forms of digital/online learning has been traced back to translating a complete classroom course syllabus into a distance education environment, including similar content and assignments that could be accessed through the print materials, CD-ROMS, and video conferencing to facilitate communication. It then gradually grew to the use of television later on to the use of computers along with teacher-student interactions in a traditional classroom. Digital learning evolved with the advancement of the Internet in the beginning of 21st century. Various online courses were developed for students that proliferated across the boundaries. The impact of the Internet on education as a paradigm shift, has helped digital education to take up space and its present form.

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Trends of Digital Education in India

- **Social Media:** Social Media as a learning tool has progressed in a big way. It is a vital platform to share and exchange information anywhere, anytime. Majority of students and teachers use social media as an integral part of the whole e-learning experience. It is also an important source of generating networking opportunities to build social activities and prospective employment on a cost-effective basis.
- **Interactive learning Resources:** The proliferation of learning apps, learning is no longer confined to a conventional classroom set up. The learning process is being re-wired with these innovative digital aids. Interactive learning modules using the best of technology are being prepared by educators to enrich the teaching-learning process.
- **Massive open Online Courses (MOOC's):** these platforms are enabling self-learning in a crucial way. It is facilitating the students and working professionals to study at their own convenience from anywhere and at any time. A variety of courses duly certified by institutes are offered under this platform. Growing trends in India indicate that there is an ever increasing desire among students to keep upgrading their skills, for which, learning based on MOOC's is a boon for them. MOOC's have been a successful trend in achieving the goal of self-learning by providing equitable access to high quality learning material and digital content to all.
- **Audio-Video Based Learning:** this type of learning is becoming popular among school students since it combines learning with fun. This medium of teaching-learning is highly interactive in nature. Students are excited to learn new concepts using digital mediums like educational apps, podcasts, ebooks etc.
- **Game Based Learning:** Game based learning is the next big thing that will redefine the digital future of education in India. This type of learning creates an environment where the learners can easily relate themselves to what is being taught to them in an engaging way.

Equitable Access to Technology

The digital revolution is bringing radical changes in the way education is being delivered and received. However, all the students do not have equitable access to technology. Equitable access to technology refers to all students having access to technology and information regardless of their ethnicity, socio-economic status, age, physical ability, or any other quality. It's not only integral, but also a fundamental component to provide opportunities to every student to learn and acquire the knowledge and skills that they need to become digitally savvy citizens. A lack of equitable access to technology and information deprives students of learning experiences and limit their opportunities in future. It is important to mention here, that the access to technology is more than just providing devices and connectivity to students. It is also making sure that every student has the opportunity to learn how to use this technology.

India has the world's second largest system of education. Therefore, the equitable access to technology matters because the push for digital mode of education has surfaced the 'digital divide' in the society more prominently in recent times. A substantial section of the population still persists whose digital access is highly limited. Digital learning in India is going to be the key face of future education, therefore efforts must be taken to ensure and promote equitable access to technology. National Education Policy 2020 addressed the concerns of equity in online and digital education and recommended the optimization and expansion of existing digital platforms and on-going ICT-based educational initiatives to meet the current and future challenges in providing quality digital education for all.

Blockers that hinders acquisition of Equitable Digital Education

The state of education in India is dismal, especially in rural areas. The outdated methods of teaching, shortage of teachers, inadequate student-teacher ratio and insufficient teaching resources are the major challenges in these areas. However, with digitization of education, students in these areas are being taught with the help of technology but some blockers still exist that hinders the acquisition of equitable digital education in these areas.

- The pre-requisite to digital education is uninterrupted power supply. Highly varying number of hours of power availability blocks the dissemination of quality digital education.
- The availability of internet connectivity also blocks the equitable use of technology for education. an accessible, uninterrupted and high speed connection is still a dream for many in rural, hard and remote areas.
- Due to economic disparity, weaker sections of the society are neither able to buy smartphones or laptops, nor able to subscribe high speed broadband internet. Thus, quality digital education is not possible.

- The non-familiarity of teachers and students with digital tools and how to integrate and use them for teaching learning purpose only adds to the hindrance of ensuring equitable access to quality education.

Enablers that will promote acquisition of Equitable Digital Education

To achieve equitable digital education in future, focus must be given to the policies that bridge digital divide as well as addressing the challenges discussed above.

- Uninterrupted power supply to every house hold will ensure adoption of digital technology by one and all.
- Low data rates and availability of relatively cheaper handsets will help to address inequities.
- For productive adoption of technology in education, digital literacy also needs to be addressed. Faculty development programs covering digital pedagogy that combines digital skills with core principles of teaching-learning process should be arranged by the officials
- Students should also be nurtured to develop a positive attitude towards digital technology, acquire basic proficiency to engage with digital tools, display safe online behaviors, and follow cyber-security protocols with digital literacy programs. It is only when digital technology finds a place in all curriculum areas that our learners will be able to fully benefit from an education enhanced by digital technology.
- The existing mass media, such as television, radio, and community radio should be extensively used for telecast and broadcasts for those whose digital access is highly limited. Such educational programmes should be made available 24/7 in different languages to cater to the varying needs of the student population.
- Suitable digital devices, such as tablets with pre-loaded content, should be considered, developed and provided to students and teachers.

Conclusion

To sum up, it can be said that digital education is the future for India and it is here to stay and will take the country to a new pedestal of socio-economic growth and prosperity. Thus, it is imperative to understand and be sensitive towards the digital disparity. Careful planning measures will have to be adopted to address these inequities. Closing the gap appears difficult due to its multi-faceted nature, but each step we take will bring us closer to attaining equitable digital education for all.

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