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# The Digital Turn: How Online Learning is Reshaping Education in India

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## Abstract

*The Educational landscape in India has witnessed a huge transformation through the emergence of online learning system particularly within the realm of higher education. The online education represents a paradigm shift in how knowledge is created, delivered and consumed, thereby redefining traditional boundaries of the classroom. The adaptability of online learning platforms addresses the rising demand for higher education and professional skill development, aligning with India's national goals of educational inclusion. This innovative approach leverages information and communication technology (ICT) to create interactive learning experiences within virtual classrooms. This paper examines emerging technologies and their potential to strengthen online education in India and highlights that learners engaged in online courses often gain additional advantages, as such modes of learning foster greater adaptability, skill development and lifestyle enhancement. It also emphasizes how online education promotes a more inclusive and scalable educational ecosystem while bridging socioeconomic and geographic gaps. Further, it explores the significance and multifaceted impact of online learning in India's education sector, with a focus on its role in democratizing higher education. India's digital education movement heralds a new era of accessible, equitable and lifelong learning opportunities.*

**Keywords:** Online learning; Adaptability; ICT; Innovative approach; Education.

## INTRODUCTION

The education sector of India is undergoing a profound transformation through the integration of digital technologies in teaching and learning processes. This ongoing shift commonly referred to as the "digital turn", marks a significant departure from traditional pedagogical approaches toward technology-enabled, flexible and learner-centric environments. The emergence of online learning has proven instrumental in addressing geographical, economic and social disparities, while reshaping the mechanisms through which knowledge is accessed and disseminated. The COVID-19 pandemic served as a major catalyst for this transformation. With widespread educational institutions closures, educators and students across the country were compelled to transition to virtual classrooms. An EdTech (education technology) platforms such as BYJU's, Unacademy, Vedantu and Government supported initiatives like SWAYAM and DIKSHA played a crucial role in maintaining educational continuity during the crisis (MHRD, 2020). While the shift showcased the potential of online education, particularly in terms of scalability, affordability and accessibility, it also revealed infrastructural limitations and the stark digital divide, especially in rural and underserved regions. India had already begun laying the groundwork for digital learning prior to the pandemic. The National Education Policy (NEP) 2020 reinforced this direction by advocating for increased use of technology in classrooms, including AI-driven platforms, digital repositories and online assessments (NEP, 2020). The policy envisions a blended approach, where digital learning complements face-to-face instruction, offering a hybrid model that leverages the strengths of both modalities.

This digital evolution has particularly benefitted higher education and competitive exam preparation sectors. Massive Open Online Courses (MOOCs), including those offered by the Indian Institutes of Technology (IITs) and Indian Institutes of Management (IIMs), have democratized access to high-quality content for students irrespective of their socio-economic backgrounds. Furthermore, digital platforms have fostered lifelong learning and skills development, aligning with national objectives to enhance employability and innovation. Despite these advancements, challenges remain and, in many regions, there is still a lack of access to high-speed internet and digital devices. In addition, digital literacy among educators and learners remains inconsistent. Privacy concerns and screen fatigue further

complicate the digital education landscape. Government and private sector initiatives, including device distribution, teacher training and the creation of multilingual content are critical in addressing these barriers.

### **Immediate and lasting effects of online education on the Indian education system during COVID-19 pandemic**

In the context of the pandemic, most schools in India were resorting to online education for the first time. Even the teachers were trying to figure out the best ways to connect with students, parents needed clarification about increased screen time and students found it difficult to adjust and focus on this new way of learning. These online classes, with their educational apps, influence the whole process of learning (Rawal, 2021). There are various factors that explain how online learning has an impact on the Indian educational system. It gives students the ability to customize their learning and make them learn as per their levels of learning, availability of internet etc. without any undue interventions. A student can design a very personalized learning path for themselves outside of the classroom by employing online

educational resources (Sharma et al., 2021). Students can also access a wide variety of content through an online platform, including animated videos, games, simulations, digital books, engaging practice and much more. They will get the chance to customize their classrooms based on the available information, their lessons and curriculum needs. Therefore, the online education platform also supports teachers in knowing their students better. These online measures of education are extremely relevant for acquiring different skills in various areas. (Raja and Lakshmi, 2022).

### **Online Education in K-12 Sectors: Government Initiatives and EdTech Platforms**

The evaluation of the impact of online education in specific K-12 domains reveal that Government programmes such as SWAYAM, E-Basta and Rashtriya Madhyamik Shiksha Abhiyan (RMSA) must prioritize the uptake of online learning. Students can meet relevant tutors both online and offline mode (Kaur, 2019). In tier II and tier III cities, where access to high-quality resources is scarce, this paradigm is gaining even greater support.



**Figure 1: Aspects of Online Teaching** (Source: Kaur, 2019)

The impacts include many EdTech (Education Technology) companies that employ the 'freemium model,' which allow students access to course content and its quality before they decide to purchase. Students know exactly what they are signing up for, and thus, the rate of satisfaction is much higher. Moreover, majority of the students look for video content on these platforms. This mode of content could be unavailable in classrooms, and this way of learning could be the beginning of breaking away from traditional ways of learning (Kaur, 2019).

### **The future of online learning**

Online learning not only benefits pupils in the educational domain but also contributes to the improvement of India's conventional education system. The impact can even be evident in traditional physical coaching institutes as they are seeing a decrease in the graph because of online learning (Ko and Rossen, 2017). The finest part of online learning is that students can discover vast knowledge by paying minimum fee. However, the effective utilization of these advantages depends on access to appropriate technological resources, including a laptop, smart phone and most importantly, a stable internet connection. The online education in India will

significantly impact the learning, making it better and more personalized for the students (Bharucha, 2018). It will create a reach that no other form of imparting education can even imagine right now or shortly in India. Now, realistic basic skills are highlighted in place of academic specialized skills. Indeed, online courses are the only powerful rudiment of education institutions' consistency into which the human factor condition does not fit that well. The sudden transition to online learning would enable a student to learn about different technological issues and allow students in other departments, including medical, nursing, etc. to study in this area very well. The primary sources of information are online books, colleges and university libraries. However, the rest of the students in India need to be connected to smart phones, laptops and other electronic gadgets.

With the increasing number of smart-phones and internet users in India, it is expected that content delivery using the rural language to smart-phones will be the key to transforming how rural India is educated. In the future, developing some factors that have a bearing on the online education system in India will be a progressive step (Aithal and Aithal, 2016). In current scenario, the digital learning market in India is one of the fastest-growing industries. KPMG and Google jointly conducted market research and published a report titled "Online Education in India: 2021." As per the report, the digital learning industry in India is expected to see its pace of growth in the coming years (Paliwal and Singh, 2021). The report pointed to rising internet access, widespread smartphone adoption and the growing need for re-skilling as key factors driving growth.

### **Challenges in the transition from face-to-face to virtual learning**

In this age of transition, the faculty works really hard to create assignments, mock test papers and research material; they also answer the queries and assist the students with their academic situation. For the remote Indian villages where internet is not easily reachable, access to virtual classes became hampered because of the lack of necessary infrastructure. Underprivileged learners faced barriers to online learning since they needed the necessary gadgets, such as laptops or tablets, not forgetting they had a limited Internet connection (Green and McCann, 2020). Many traditional educational institutions encountered problems with teachers and students who opposed virtual classes and used conventional face-to-face teaching methods. Many educators and students needed to learn the technology concept to navigate online platforms, so it was difficult for them to transition to virtual classes. Adapting the assessment methods for the virtual learning environment was the main challenge, as traditional examination systems needed to change to ensure that the assessments were fair and correctly

done. On account of long stretches of virtual learning, the screen time grew, which resulted in several issues among the students as they neither got to interact socially nor experience the hands-on practices of the traditional classroom (Ghazi-Saidi et al., 2020).

### **Online Learning Growth in India**

Alison, edX, NPTEL and Uzity are the most widely used online learning platforms, providing learners everywhere with various courses to take. Alison is an Irish online education company that provides certificate and diploma courses. It highlights free education, where various courses and diploma programs are available under multiple subjects. The platform allows registered users to access digitally-based education and skill training for free. Similarly, edX is an American open online course providers company. It is a joint venture of Massachusetts Institute of Technology (MIT) and Harvard University, offers excellent courses from the best universities worldwide, mainly focusing on the skills needed for personal and professional development (O'Keefe et al., 2020). NPTEL (National Programme on Technology Enhanced Learning) is a concept introduced by Indian Institutes of Technology (IIT), focuses on technical and engineering courses and hence serves the student community as well as the engineering community at large (Almahasees et al., 2021). Uzity, an Indian platform, drives an interactive and collaborative learning mode, providing courses in technology, business and more. It is a virtual learning environment (VLE) and learning management system (LMS). These learning platforms collectively contribute to the democratization of education, offering learners access to freely available, affordable and flexible means of knowledge and skill acquisition.

The education sector in India is no longer bound to just classrooms. The e-learning market in India is booming, valued in the billions and projected for rapid growth. Online training in the country is being catered equally to school courses, college courses and mid-level professional courses. The Government endeavors to provide e-learning to students in every corner of the country. (Sharma and Jain, 2022). Bengaluru based Entrance India, creates past papers for all engineering and medical exams in India. These courses aim to help students to save their time and access of online study materials at one place (Catacutan et al., 2023). They also stressed convenience-based training since the online capacity gives students access to topics at a justified time and place. Another factor why online training will gain momentum is because of the need for re-skilling, for instance, about a decade ago, all that a software professional was required to know were programming languages. Currently, these professionals have to develop themselves with other aspects,

such as basic data analytics and cloud computing (Bordoloi et al., 2021).



Figure 2: Online Education in K-12 Sectors

Table 1: A Comparative Study of Alison, edX, NPTEL and Uzity

| Name                 | Alison                       | edX              | NPTEL       | Uzity                 |
|----------------------|------------------------------|------------------|-------------|-----------------------|
| Year                 | 2007                         | 2012             | 2003        | 2013                  |
| Country              | Ireland                      | America          | India       | India                 |
| Founder/Developer    | Mike Feerick                 | MIT and Harvard  | IIT and IIS | Foradian Technologies |
| Type                 | e-learning, online education | Online education | e-learning  | e-learning            |
| Primary Headquarters | Galway, Ireland              | Massachusetts    | IIT, Madras | Bengaluru, India      |

## CONCLUSION

Online learning is fundamentally transforming the landscape of Indian education by enhancing accessibility, enabling individualized learning experiences and equipping learners with the skills required for a digital-centric future. The rapid growth of information and communication technology has positioned digital learning as an essential component of contemporary education. Although several challenges persist, this digital shift represents a significant advancement toward creating an inclusive, adaptive and future-ready education system capable of addressing the needs of a heterogeneous and evolving society. Moreover, technological tools now play a vital role in reshaping teaching and learning practices. Therefore, while digital education offers substantial opportunities, its successful implementation requires addressing infrastructural and pedagogical challenges to ensure equitable and effective learning outcomes.

## REFERENCES

- [1] Aithal, P. S., & Aithal, S. (2016). Impact of online education on higher education system. *International Journal of Engineering Research and Modern Education (IJERME)*, 1(1), 225–235.
- [2] Almahasees, Z., Mohsen, K., & Amin, M. O. (2021, May). Faculty's and students' perceptions of online learning during COVID-19. *Frontiers in Education*, 6, 638470. *Frontiers Media SA*.  
<https://www.frontiersin.org/articles/10.3389/feduc.2021.638470/full>
- [3] Bharucha, J. (2018). Learning and social software: Exploring the realities in India. *Journal of Information, Communication and Ethics in Society*.
- [4] Bordoloi, R., Das, P., & Das, K. (2021). Perception towards online/blended learning at the time of COVID-19 pandemic: An academic analytics in the Indian context. *Asian Association of Open Universities Journal*, 16(1), 41–60.  
<https://www.emerald.com/insight/content/doi/10.1108/AAOUJ-09-2020-0079/full/html>

- [5] Catacutan, A., Kilag, O. K., Diano Jr., F., Tiongzon, B., Malbas, M., & Abendan, C. F. (2023). Competence-based curriculum development in a globalized education landscape. *Excellencia: International Multi-disciplinary Journal of Education*, 1(4), 270–282.
- [6] Ghazi-Saidi, L., Criffield, A., Kracl, C. L., McKelvey, M., Obasi, S. N., & Vu, P. (2020). Moving from face-to-face to remote instruction in a higher education institution during a pandemic: Multiple case studies. *International Journal of Technology in Education and Science*, 4(4), 370–383. <https://files.eric.ed.gov/fulltext/EJ1271208.pdf>
- [7] Green, D. D., & McCann, J. (2020). Mapping disruption in higher education: The new faculty model. *American Research Journal of Business and Management*, 6(1), 1–7. <https://www.academia.edu/download/79092940/15.pdf>
- [8] Kaur, R. (2019). MOOCs in higher education: Challenges and opportunities. *International Journal of 360 Management Review*, 7, 115–118.
- [9] Ko, S., & Rossen, S. (2017). *Teaching Online: A Practical Guide* (4th ed.). Taylor & Francis Group. <https://doi.org/10.4324/9780203427354>
- [10] MHRD, (2020). Initiatives for continuing education during COVID-19. Ministry of Human Resource Development, Government of India.
- [11] National Education Policy (NEP). (2020). National Education Policy 2020. Ministry of Education, Government of India.
- [12] O’Keefe, L., Rafferty, J., Gunder, A., & Vignare, K. (2020). Delivering high-quality instruction online in response to COVID-19: Faculty playbook. Online Learning Consortium. <https://files.eric.ed.gov/fulltext/ED605351.pdf>
- [13] Paliwal, M., & Singh, A. (2021). Teacher readiness for online teaching-learning during COVID–19 outbreak: A study of Indian institutions of higher education. *Interactive Technology and Smart Education*, 18(3), 403–421.
- [14] Raja, M., & Lakshmi Priya, G. G. (2022). Using virtual reality and augmented reality with ICT tools for enhancing quality in the changing academic environment in COVID-19 pandemic: An empirical study. In *Technologies, Artificial Intelligence and the Future of Learning Post-COVID-19: The Crucial Role of International Accreditation* (pp. 467–482).
- [15] Rawal, M. (2021). An analysis of COVID-19 impacts on the Indian education system. *Educational Resurgence Journal*, 2(5), 35–40.
- [16] Sharma, P., & Jain, V. (2022). Role of culture in developing transformative leadership for higher education in emerging economies. *Re-imagining educational futures in developing countries: Lessons from global health crises* (pp. 243–259).
- [17] Sharma, U., Tomar, P., Bhardwaj, H., & Sakalle, A. (2021). Artificial intelligence and its implications in education. *Impact of AI technologies on teaching, learning, and research in higher education* (pp. 222–235).