

# An analytical Review of Online Education in India: Challenges and Prospects

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## Abstract

It is inevitable that the education sector would be affected by rapid technological progress. Many studies are being conducted to determine the advantages and disadvantages of online education vs traditional classroom instruction. Online education in India faces both difficulties and prospects. Online education in India is expected to grow in popularity thanks to a thorough literature evaluation in this research. We've established that internet penetration, low-cost online education, convenience of course completion, government initiative, employer recognition, and bridging the gap are all important variables in the rise of online education. Insufficient digital infrastructure, lack of legitimacy, and the language used in online education are some of the challenges that are hampering progress. The article also examines the future of education in India in light of the country's growing internet population.

**Keywords:** Education, Technological, Difficulties, Digital, Internet etc.

## Introduction

India, a nation with a rapidly growing youth population and aspirations for an increasingly knowledge-based economy, stands at a crucial juncture in its educational landscape. The demand for higher education is surging, outpacing the capacity of traditional brick-and-mortar institutions. In this context, online education has emerged as a powerful force, offering transformative possibilities for democratizing access and enhancing the quality of higher education. This research article delves into the evolution of online education systems in India, with a specific focus on their impact on higher education in the contemporary world.

There have been enormous shifts brought about by technological advancements in nearly every facet of human life. Education has also been affected by technological advancements. This decade has seen a dramatic shift in the face-to-face education. Despite the fact that face-to-face education is still the standard, online courses are becoming more and more popular in fields like management and engineering. Instant, online, anytime access, self-driven and on-the-go are some of the reasons for online education's exponential rise.

MOOCs are a primary driver of online education's explosive expansion (Massive Open online courses). Kaplan, Andreas M.; Michael Haenlein (2016) say that MOOCs are online courses that allow anybody to participate and are available for free on the internet. There has been a lot of interest in MOOCs since their inception in 2008. There have been more than 800 MOOCs offered by universities around the world at this point in time. By the end of 2017, 83 million students had signed up for MOOCs, according to a statistic by Class Central. In terms of registered users, Coursera, edX, XuetangX, Udacity, and FutureLearn make up the top five MOOC providers.

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Government funding for online education in India is motivated by the Digital India initiative's potential to improve education quality and reach. SWAYAM (Study Webs of Active - Learning for Young Aspiring Minds) is an initiative launched by the Indian government and the Ministry of Human Resource Development (MoHRD) that aims to meet the three essential goals of education policy: access, equity, and quality. This endeavour aims to make high-quality teaching and learning tools available to everyone, even those who can't purchase them.

SWAYAM aims to educate students who are still unaware of the digital revolution and thus unable to participate in the knowledge economy on how to do so. A total of almost 150 million students from all over the world are registered in Swayam's nearly 2000 online courses.

## **Review of Literature**

Online learning can be defined in a variety of ways. Online learning, according to Khan (1997), is the process of delivering teaching to a remote audience over the internet. An online course is defined by Elaine Allen and Jeff Seaman as one in which at least 80% of the course content is given online. Less than 30% of the course content is offered online in face-to-face instruction.

Online education has grown in popularity during the previous decade, according to Stack, Steven Dr. Online and face-to-face sessions don't appear to have a significant impact on students' test performance, according to his findings.

Dr. Fahad N. Al-FAHAD conducted another study in which 186 university students from various colleges were asked about their attitudes and perceptions concerning the usefulness of mobile learning in their studies. Students' perceptions of mobile technology as a tool for better communication and education are corroborated by the researchers' findings.

An investigation into the cost of traditional versus online courses was done by Herman, T., & Banister, S. According to the researchers' findings, online courses help students become more actively involved in their education, promote better student learning outcomes, and save money for the university as a whole.

The literature on online education in India encompasses a diverse range of perspectives, highlighting both the potential and challenges associated with this evolving landscape. Several studies emphasize the positive influence of online learning on accessibility, affordability, and flexibility. Research by Rao (2019) suggests that online education can bridge geographical and socio-economic barriers, providing educational opportunities to students in remote areas and economically disadvantaged households. Sharma and Bhatia (2020) further highlight the cost-effectiveness of online learning, making it a viable option for students facing financial constraints. The flexibility offered by asynchronous learning formats and self-paced delivery methods is also lauded as a significant advantage, catering to the needs of working professionals and students with diverse learning styles (Singh & Yadav, 2018).

However, challenges and concerns surrounding online education in India are also recognized in the literature. Limited digital infrastructure, particularly in rural areas, can impede access and participation (Agarwal, 2017). Lack of digital literacy and technological skills among both students and faculty can further hinder effective learning and engagement (Kumar & Mishra, 2018). Additionally, issues of quality control, accreditation standards, and plagiarism raise concerns about the academic rigor and outcomes of online programs (Garg & Kumar, 2019).

This year, Google and KPMG predicted that the online education business in India will grow to \$1.96 billion in 2021, with a current market value of \$247 million. Second only to the United States in the online education sector is India. Report findings show that paid online education service users would expand by at least six times, to around 9.6 million users by 2021.

### **Objectives of the Study:**

This research study aims to comprehensively explore the online education system in India, with a specific focus on its impact on higher education. The key objectives are:

1. To analyze the historical development and current landscape of online education in India, including major stakeholders, platforms, and program offerings.
2. To assess the benefits and challenges associated with online higher education in India, considering factors such as accessibility, affordability, quality, and pedagogy.
3. To investigate the impact of online education on student learning outcomes, employability, and overall educational experiences.
4. To critically examine the regulatory framework and quality assurance mechanisms for online higher education programs in India.
5. To identify future trends and potential disruptions in the online higher education landscape in India, and propose recommendations for optimizing its effectiveness and inclusivity.

### **Methodology of the Study:**

This research will employ a mixed-methods approach, combining quantitative and qualitative data collection and analysis techniques. The quantitative component will involve statistical analysis of secondary data from government reports, industry surveys, and student enrollment records. This data will be used to map the growth trends, demographics, and program offerings of the online higher education sector in India.

The qualitative component will involve semi-structured interviews with key stakeholders, including online education platform providers, university administrators, faculty members, and students enrolled in online higher education programs. These interviews will explore the subjective experiences, perceptions, and challenges faced by different participants in the online learning ecosystem.

Additionally, case studies of successful online higher education initiatives in India and abroad will be conducted to examine best practices and lessons learned. This multifaceted approach will enable a comprehensive understanding of the nuances and complexities of online education in the Indian context.

### **Discussion:**

The discussion section will present the key findings of the research, addressing each of the outlined objectives. This will involve analyzing the statistical data, thematic analysis of interview transcripts, and insights from case studies. The discussion will critically evaluate the benefits and challenges of online higher education in India, exploring its impact on access, affordability, quality, and student outcomes.

Furthermore, the discussion will examine the regulatory framework and quality assurance mechanisms in place for online programs, highlighting strengths and weaknesses. Potential disruptions and future trends in the online higher education landscape will be identified, and their implications for stakeholders and policy makers will be discussed.

### **Drivers of online education growth in India**

the following considerations, people in India are becoming more open to the idea of receiving their education online at an alarming rate:

### **1. Internet penetration in India**

According to a survey that was put out by IAMAI and Kantar IMRB, there are currently 481 million people in India who use the internet, and this number is increasing at a rate of 11.34 percent. Also, as of December 2017, the penetration rate of the internet in urban India was 64.84 percent, whereas the penetration rate in rural India was only 20.26 percent. The rise in the number of people who own smart phones in India is the primary factor behind the country's rising internet user count. According to a survey published by eMarketer, a market research firm located in the United States, there were roughly 291.6 million smart phone users in India as of the month of December in 2017. They anticipate that this number will increase by 15.6% in order to reach 337 million by the end of the year 2018. The primary reasons for this expansion are the dramatic increase in the number of people using smart phones and the widespread availability of smart phones at lower prices. The proliferation of mobile internet users can be attributed to the accessibility of the internet at extremely reasonable prices, in conjunction with high download speeds. Internet access makes education of a world-class standard more readily available to those living in both urban and rural areas.

### **2. Online education saves money and time**

The internet-based nature of online education means that it may be accessible from any location, at any time. The content can be accessed at any time of day or night, at home, in the cafeteria, or even on the train. Because the lectures and videos are already preloaded, you can watch them as many times as you like. A major benefit of online education is that it is far less expensive than traditional classroom instruction. It's also possible to save a lot on lodging and transportation costs. You don't have to buy any books because everything is available online.

### **3. Ease of doing courses for working professionals**

Working professionals who are unable to take time off from their jobs to attend school can benefit greatly from online learning. They have a greater selection of courses to choose from when pursuing an education via the internet, which may help them discover new job paths. The data from Google and KPMG, which claims that reskilling and online certification is the largest area of online education, also supports this. "Upgrad," another online platform, is also giving training and employment opportunities in the field of Big Data.

### **1. Initiative by Government of India**

Online education is also being promoted by the Indian government. A programme called Swayam, which provides free education and certification to anyone who wants it, has been launched by the company. IITs, IIMs, and NPTEL have partnered with this effort in order to give high-quality education. Additionally, they are partnering with colleges so that students can obtain college credit through online courses. National Optical Fiber Network (NOFN) was also launched by the Indian government in support of the development of digital infrastructure in the country. Increase broadband connection and build a fast network are the primary goals of this project. 17 million digitised books and journals are now available online through the government's National Digital Library. NDL is available free of charge to 32 lakhs of registered customers. All central universities in the country have been given access to Wi-Fi.

### **4. Receiving acknowledgement from potential employers**

At this time, the majority of educational institutions in the United States are offering at least one online class. Even in a country like India, where getting into top schools may be tough and expensive, many educational establishments have begun giving classes online. Employers will recognise and value online coursework completed at reputable educational institutions or universities. Employers are aware that receiving an education through an online platform involves a high

level of self-discipline and motivation, as well as other qualities that they want in potential employees. Therefore, selecting the university at which you will pursue your education ought to be done with the utmost care. In addition, there are literally hundreds of different possibilities to pick from. If you make the proper choice and attend the right educational institution, it will be easier for you to make the right career advancement.

### **5. Bridge the gap between the educational level and the expectations of the industry**

It was reported that there were 18.3 million unemployed Indians in the year 2017, and it is anticipated that number will climb to 18.9 million by the year 2019. The research was published in *The World Employment and Social Outlook - Trends*. According to a recent report, the percentage of India's total population that is of working age is on the rise and is projected to reach 64 percent by the year 2021. Do you believe that this is because India does not offer a sufficient number of work opportunities? According to Nascom, there will be a demand for 6 million people in the cyber security industry by 2022. C. P. Gurnani, the CEO of Tech Mahindra, claims that 94 percent of newly graduated IT professionals are not qualified for employment. According to the perspective that was presented by Sanjay Bansal, 58 percent of unemployed graduates and the majority of unemployed post-graduates (62 percent) state that jobs matching their ability and education are not available, and that this is the fundamental reason why they are unemployed. Therefore, online education is one of the alternatives that can be utilised to bridge the gap between the standards that industry expect and the standards that educational institutions are giving. An advanced education can be obtained through the use of online education, which provides the option to take advanced classes in a variety of fields.

## **CHALLENGES FACED BY ONLINE EDUCATIONAL INSTITUTIONS**

In India, persons participating in online education are up against a great deal of competition. The following are examples of some of these obstacles that need to be conquered:

### **1. Insufficient digital infrastructure**

Even if the Government of India is making efforts to improve digital infrastructure, there is still a significant amount of work to be done in this area. The most significant challenges are obtaining dependable power supplies and high internet speeds. In terms of both download and upload speeds, the internet in India is ranked 89th worldwide. Only 15 percent of households have access to the internet, and very few individuals have access to mobile broadband, with only 5.5 subscriptions for every 100 people, according to a research from the World Economic Forum. In addition, the current reach of broadband is only approximately 600 corridors, the most of which are located in and around the top 50 to 100 cities in India; as a result, rural areas have poor connectivity. The technology of 5G networks is necessary in today's world since it will enhance the rate at which users can download data.

### **2. Limited opportunities for social interaction**

Online education can be accessed from the comfort of one's own home or any other location that may be convenient; but, there is very little opportunity for direct interaction with the instructor or with other students taking the course. According to Dharendra Kumar (2010), there is relatively little peer-to-peer conversation among students, particularly in courses that allow students to set their own pace. E-mail, chat rooms, and online discussion groups are where the vast majority of the conversation takes place. There is no climate on campus that would promote increased social engagement. Therefore, you are unable to build any social contacts, which is detrimental to the progress of your career.

### **3. Questionable credibility of degrees**

Even though the business world has begun to acknowledge degrees earned online, there is still a large number of questionable and unaccredited degrees available to be earned online. The number of con artists who sell fraudulent certificates that are not backed by any credentials is growing. These certificates are being offered. Not only do these scams damage the integrity of the online diplomas, but they also undermine the faith that potential employers have in online education programmes.

#### **4. Motivation**

There are some pupils that require more motivation in order to show up to class. Students have the potential to put off their work when participating in self-paced online programmes. The percentage of students who quit their online classes is shockingly high. In order to successfully finish the tasks and upload them on time, you will need to exercise self-motivation and discipline. It is possible that you will struggle to succeed in an online programme if you have trouble working alone, maintaining organisation, and meeting deadlines.

#### **5. Language of the Course**

India is a country with a number of different languages spoken by its population, the vast majority of which lives in rural areas. The vast majority of the content presented in online courses is done so in the English language. As a result, pupils who are unable to communicate in English face difficulties due to the abundance of material presented in that language. Therefore, it is the responsibility of computer professionals, educators, administrators, language content authors, and content disseminators to come together in order to provide a workable framework and a standard solution for students who are only familiar with Indian languages.

### **POSSIBILITIES AVAILABLE THROUGH ONLINE EDUCATION**

The advancement of technology has created a plethora of new options for all parties involved in the online education industry, including students, entrepreneurs, and educators. The following are some of the variables that contribute to the varied chances available in this field:

#### **1. Learning on Mobile Devices**

According to a survey that was published in Stastia (2018), there were 320.57 million people in the world who accessed the internet through their mobile phone in the year 2017. By the year 2021, it is anticipated that this number would have increased to 462,26 million. The availability of 4G internet and smart phones at prices that are very affordable is largely responsible for the uptick in user numbers. IAMA has high hopes that the National Telecom Policy (NTP) 2018, which will focus on new technologies such as 5G, will help address digital divides, which will promote internet penetration in rural areas through mobile internet, and promote better quality data services at more affordable prices in the future. According to a survey by Zenith, 73 percent of time spent surfing the internet in 2018 would be done so on mobile devices. Therefore, in the not too distant future, the vast majority of students will be able to access e-learning using their mobile phones.

#### **2. The Interest of the Investors**

The Digital India campaign, the cultural significance given to education, and falling mobile data prices have all contributed to an increase in the number of businesspeople who are venturing into the online education industry. This is because it is anticipated that this sector will see an uptrend in the next five years. Byju's has received an investment of \$50 million from the Chan Zuckerberg Initiative, while Eruditus has received an investment of \$8.2 million from

Bertelsmann India, and EduPristine has received an investment of \$10 million from both Kaizen Management Advisors and DeVry Inc. Khan Academy is a non-profit organisation that is supported financially by philanthropic organisations such as The Bill and Melinda Gates Foundation, Google, and Reed Hastings, the founder of Netflix. Eruditus Executive Education, a provider of executive education programmes, has obtained \$8 million finance from Bertelsmann India Investments. In addition, the online learning platform Unacademy had raised \$11.5 million in funding led by Sequoia India and SAIF Partners. As a result, the field of online education will continue to garner the interest of more businesspeople and investors, in addition to attracting an increased amount of financial backing.

### **3. Blended Model**

In the not too distant future, there will be a merging of traditional classroom learning and internet learning. The idea of blended learning brings together the best aspects of traditional schooling with newer forms of digital and online instruction. It is necessary for the student as well as the teacher to be physically present, but the student has some say over the timing, location, path, and pace of the activity. This model will make use of both traditional in-person teaching methods as well as those that are facilitated through the use of computers. In the not too distant future, there will be such a thing as a virtual classroom, in which traditional face-to-face offline teaching will be supplemented by online training on both practical knowledge and soft skills.

### **4. Brand New Lectures**

The field of information technology (IT), which encompasses topics such as big data, cloud computing, and digital marketing, currently offers the most popular courses available through online education. However, in the not-too-distant future, there will be an increased demand for a variety of courses in unusual fields, such as culinary management, photography, personality development, forensic science, cyber law, and other related fields.

### **Conclusion**

If it can be developed in conjunction with businesses, academic institutions, and the public sector, online learning has the potential to completely transform the educational landscape of the future. In order to close the skills gap, the course curriculum needs to undergo significant revisions before students can graduate and enter the workforce prepared. The process of education needs to be altered so that it is more applicable by including the usage of modern technology. Additionally, courses must to be developed in a variety of languages to expand their audience and provide additional possibilities for the children of India's rural areas. In order to develop strategies that would help online students improve their social skills, innovation is essential.

In conclusion, the rise of online education in India presents both promising opportunities and critical challenges for transforming the higher education sector in the contemporary world. This research aims to contribute to a nuanced understanding of this dynamic landscape, providing valuable insights for navigating its potential and overcoming its limitations. By fostering further research, informed policy interventions, and collaborative efforts amongst stakeholders, India can leverage the power of online education to realize its vision of providing equitable and quality higher education for all.

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