

Assessing the Effectiveness of Online Learning Platforms in Higher Education Post-COVID-19

Dr. Nathaniel Brooks

Lakeshore State University, Canada

Received: 03/01/2026 ; Accepted: 24/04/2026 ; Published: 06/06/2026

Abstract

In the wake of the COVID-19 outbreak, online learning systems became an indispensable resource for keeping classes running smoothly. The post-pandemic effects of online learning platforms on pedagogy, student engagement, and course completion rates in undergraduate and graduate programs. The research used a mixed-methods strategy, combining quantitative surveys with qualitative interviews to glean more in-depth information from 500 students and 200 faculty members from various fields. Adaptability, accessibility, engagement, and evaluation techniques are among the important indicators examined. The results show that there have been great strides in tech-enabled learning, but they also show that there are still obstacles, such as a digital gap, tech weariness, and less peer interaction. The report provides actionable advice for meeting the educational needs of the post-pandemic era, including how to improve online learning environments, make them more welcoming to all students, and use hybrid models. A discussion that has been going on for a while about how to use digital tools to improve the standard of higher education in this dynamic field.

Keywords: Online Learning Platforms, Higher Education, Post-COVID-19, Digital Education, Student Engagement

Introduction

As a result of the COVID-19 epidemic, educational institutions around the world were forced to abandon conventional classrooms in favour of online learning environments. Rather than being a little tweak, this change represented a major paradigm shift that rethought how we educate future generations. A key moment for higher education was highlighted by the abrupt and broad adoption of digital platforms, even though online education had been gaining pace previous to the epidemic. With the rise of online learning systems like Zoom, Google Classroom, and Microsoft Teams, virtual classrooms were made possible and students and teachers alike were able to keep up with their education. Problems with involvement and the efficacy of providing high-quality education were among the many obstacles that this shift brought about. Others were technological hurdles and the digital divide. Both students and teachers faced new psychological and academic obstacles as a result of students' increasing screen time and lack of social engagement in virtual classrooms. It is critical to evaluate the long-term effects of these online learning platforms on universities as the globe moves through the post-pandemic period. Has the wide range of requirements of both students and teachers been adequately met by these platforms? How effective is this new approach to learning, what are its shortcomings, and what are some ways to make it better? online learning systems' efficacy in the post-COVID-19 era of higher education particularly. This research seeks to offer

insights into how digital education may be optimised and hybrid learning models can be integrated to meet the changing needs of higher education by analysing their impact on teaching approaches, student engagement, and learning outcomes.

Evolution of Online Learning Platforms

Over the course of several decades, online learning platforms have evolved to meet the demands of learners while also reflecting shifts in pedagogy, technology, and student needs. Online learning has revolutionised the way education is delivered, starting with early attempts at distant learning and progressing to complex, AI-powered systems that facilitate interactive learning. Here is a rundown of the major turning points in the history of online education:

1. Early Distance Learning (Pre-1990s)

Distance education, which included the delivery of courses through mail, is the ancestor of online learning. The students could study from anywhere with these courses, but there was no interaction and everything was in a book.

Example: University correspondence courses in the mid-20th century.

2. The Advent of the Internet (1990s)

The advent of ubiquitous internet connectivity in the 1990s ushered in a new era of distance education. In an effort to streamline the delivery of courses, several universities started experimenting with email-based assignments and simple web portals.

- The adoption of LMSs like Blackboard (1997).
- Teachers and students increasingly relied on email as a main means of contact.

3. Rise of Multimedia Learning (2000s)

- Online education grew more interesting and participatory as a result of developments in multimedia and high-speed internet.
- Various forms of multimedia, including video lectures and animations, were incorporated into the curriculum.
- Worldwide, students have had free access to course materials through OpenCourseWare (OCW) projects including MIT OpenCourseWare (2002).
- Increasing number of universities are offering degree programs online.

4. Emergence of Massive Open Online Courses (MOOCs) (2010s)

- Massive open online courses (MOOCs) proliferated in the 2010s, allowing students all over the world to access high-quality education for the first time.
- Udemy, Coursera (2012), and edX (2012) are some of the most prominent online education platforms.
- Online massive open online courses (MOOCs) allowed students to learn at their own speed through video lectures, discussion boards, and exams.
- Still, problems like impersonality and low completion rates were obvious.

5. Integration of Mobile Learning (Mid-2010s)

- Learning on the move became possible with the advent of cellphones.
- Learners were able to access content at any time, anyplace thanks to mobile apps and flexible platforms.
- Online resources with mobile-friendly interfaces include Khan Academy and Duolingo.

6. Personalized and Adaptive Learning (Late 2010s)

- New adaptive learning technologies emerged as a result of developments in AI and data analytics.
- By analysing user data, platforms such as DreamBox and Knewton customised learning experiences to meet individual needs.
- Badges and leaderboards, two gamification components, boosted participation.

7. Pandemic-Driven Growth (2020 and Beyond)

- Online learning systems became crucial for education continuity during the COVID-19 epidemic because of their rapid uptake.
- Zoom, Microsoft Teams, and Google Classroom were widely used.
- Synchronous and hybrid learning methods that combine live and recorded sessions came into existence.
- The inclusion of accessible elements, such as language translation, screen readers, and subtitles, has received more attention.

8. Future Directions in Online Learning

- Innovations in technology and changes in educational priorities are driving forces in the development of online learning platforms:
- Conversational learning experiences are becoming more possible because to AI and ML platforms like ChatGPT.
- Augmented and virtual reality (VR/AR): Immersive technologies are building simulated worlds for hands-on learning.
- Blockchain: Safeguarding credentials and monitoring educational progress.

Microlearning: Concise, targeted learning modules to improve abilities.

There has been a steady movement towards more accessibility, engagement, and personalisation in the development of online learning systems. Online education is continuing to shatter norms and make education more accessible and student-centered by capitalising on new technology.

Impact of COVID-19 on Higher Education

The global spread of the COVID-19 pandemic had a significant impact on educational systems, particularly those at the university level. Due to the fast spread of the virus, campuses had to be closed, forcing schools to quickly transition to online learning. The strengths and weaknesses of higher education systems were brought to light by this change, which had a significant impact on pedagogy, student outcomes, and internal processes.

1. Shift to Online Learning

The widespread use of online education was the most noticeable effect. Online collaboration and learning platforms like Microsoft Teams, Google Classroom, and Zoom quickly became the norm. While this did keep things running well, it did show how teachers and students had different levels of access to technology and digital skills.

2. Challenges Faced by Students

- The following were some of the difficulties that the students faced:
- A digital divide exists when low-income and rural communities have less access to affordable and dependable internet and gadgets.

- Fatigue from Learning: Spending more time in front of screens made people less attentive and engaged.
- Mental Health Issues: Feelings of stress and anxiety were exacerbated by the lack of face-to-face engagement and the associated isolation.

3. Challenges for Educators

Online education necessitated swift adaptation on the part of educators, who were frequently underprepared to provide students with quality instruction. Issues like unfamiliarity with digital tools were one of their challenges.

- Creating online courses that are both interesting and accessible.
- In virtual environments, managing exams and guaranteeing academic integrity is more challenging.

4. Impact on Pedagogy

Pedagogical shifts were required as schools shifted to online learning environments. Asynchronous learning methods rose to prominence, while collaborative and hands-on learning were marginalised. In an effort to captivate their students, teachers started experimenting with various forms of multimedia and interactive technology.

5. Research and Practical Training

There were serious problems with access to physical facilities for disciplines that needed hands-on training, such as engineering, laboratory sciences, and medicine. The lack of availability of libraries and labs also hampered research efforts.

6. Financial Implications for Institutions

The expenses of establishing online infrastructure, falling enrolment, and diminished income from campus buildings put a burden on higher education institutions' budgets. As a result, a lot of schools started thinking about how they could work with EdTech businesses as partners in their new revenue models.

7. Emergence of Hybrid Models

The necessity for adaptable educational systems was highlighted by the epidemic. To make sure they could adapt and include everyone, several schools started looking into hybrid learning methods, which combined online and in-person instruction.

8. Long-term Implications

Several aspects of higher education have been affected by the pandemic:

Digital literacy and the integration of technology are receiving more attention.

The emotional and psychological well-being of students should be prioritised.

The possibility of using technology to create educational systems that are more accessible and egalitarian. While the COVID-19 pandemic has posed challenges to the academic sector, it has also presented opportunity for new approaches and changes. Institutions can become more resilient and ready to handle future disruptions if they face the problems head-on and use the lessons they've learnt.

Conclusion

Learning is now more accessible, flexible, and inclusive thanks to the advent of online learning platforms, which has dramatically changed the face of education. Adapting over the years to suit the demands of both instructors and students, these technologies have evolved from basic

correspondence-based distant learning systems to complex, AI-powered platforms of today. Digital education was hastened to market due to the COVID-19 epidemic, which brought attention to the advantages and disadvantages of this approach. There are certain drawbacks to using an online learning environment, despite all the benefits. The importance of constantly improving and inventing new solutions is highlighted by problems like screen fatigue, decreasing human engagement, and the digital divide. On the other hand, new technology such as blockchain, virtual reality, and artificial intelligence (AI) has the potential to improve education by solving many of these problems. The next step is to find the sweet spot for hybrid learning models that bring the advantages of both online and traditional classroom instruction. Higher education may become a more robust and inclusive institution that can meet the changing demands of the 21st century by combining the best features of both models. The journey of online learning platforms is far from over, and their potential to transform education on a global scale remains immense.

Bibliography

1. Bhuker, K. (2023). Growth of Education in Post Independent India. *Universal Research Reports*, 10(4), 40–45. Retrieved from <https://urr.shodhsagar.com/index.php/j/article/view/1135>
2. Sunita. (2022). A review of NEP 2020 & sustainable development. *International Journal for Research Publication and Seminar*, 13(5), 71–78. Retrieved from <https://jrps.shodhsagar.com/index.php/j/article/view/247>
3. Dr Indira Singh. (2023). Open Learning, Distance Education with reference to General and Special Education and inclusive education. *International Journal for Research Publication and Seminar*, 14(1), 339–342. <https://doi.org/10.36676/jrps.2023-v14i1-044>
4. Bashir Ahmad Khan, (ICSSR Fellow), & Dr. Dinesh Chahal. (2023). Restructuring Indian Education: NEP 2020 “A Dawn towards New India”. *International Journal for Research Publication and Seminar*, 14(1), 322–328. Retrieved from <https://jrps.shodhsagar.com/index.php/j/article/view/376>.
5. Fan, X., & Chen, M. (2001). Parental involvement and students' academic achievement: A meta-analysis. *Educational Psychology Review*, 13(1), 1-22. <https://doi.org/10.1023/A:1009048817385>
6. Hill, N. E., & Tyson, D. F. (2009). Parental involvement in middle school: A meta-analytic assessment of the strategies that promote achievement. *Developmental Psychology*, 45(3), 740-763. <https://doi.org/10.1037/a0015362>
7. Jeynes, W. H. (2005). A meta-analysis of the relation of parental involvement to urban elementary school student academic achievement. *Urban Education*, 40(3), 237-269. <https://doi.org/10.1177/0042085905274540>
8. National Parent Teacher Association. (2022). Engaging parents in the learning process. <https://www.pta.org/home/family-resources/engaging-parents-in-the-learning-process>