Online Learning: Changing dynamics of the Education Environment

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Abstract

With the advancements in technologies, progressions in the field of education are unavoidable. A significant amount of research is being carried out to identify benefits and drawbacks of online education vs traditional schooling.

Online learning is described as learning that takes place partially or wholly through the use of Internet. Online learning caters to a broad range of pupils, and it is becoming increasingly common in settings ranging from primary schools through higher education institutions and even beyond.

Insufficient digital infrastructure, legitimacy, and the terminology used in online education are all challenges that are undermining progress. With the growing popularity of the internet in India, the study covers what potential is available in the education industry in the coming years.

Keywords: Web Based teaching, face-to-face learning, higher education, hybrid classrooms, digital infrastructure

Introduction

The technology encroachment has brought about significant changes in almost all facet of society. Technology has an influence on the learning process as well. The vastness of the Internet and the ease with which technology can be accessed have resulted in an increase in trend for web-based academic learning. In the past several years, face-to-face education has evolved dramatically. Even though offline education is still the standard, online courses are becoming more popular in the fields of engineering and management. Across the country, online education is fast revolutionising schools and colleges. Instant, online, anytime accessible, self-driven, and on the go are some of the factors responsible for the tremendous expansion of online education.

Since the COVID-19 outbreak, e-learning has emerged as a viable option for modernizing the traditional educational system as a whole. Educators and scholars have had to adapt their habits, teaching/learning styles, evaluation methodologies, and other aspects of their lives. This reform has resulted in a number of benefits, but it has also resulted in conflicts and struggles among the benefactors.

Although e-learning became a hot topic in the late 1990s, it appears that the world has now focused almost totally on e-learning for a longer or shorter period of time, adapting and re-adapting to the new reality throughout the 2020 pandemic. As this field of research has become more open to new experiences and lucrative for international scholars, more studies have started to emerge.

Literature Survey

Online learning can be defined as the delivery of lessons to a remote audience using web technologies as a channel.

The structure of web-based teaching and learning environments can be strikingly different. Digital, hybrid or blended format, and traditional courses with web-based add-ons are the three main types of online learning environments.

Digital courses are totally online, with no face-to-face engagement, with all components of the course taking place in an e - learning system. Hybrid courses combine web-based and classroom activities, with varied amounts of time allocated to the online and in-class lectures depending on the nature of the class and the instructor's discretion. The final programming model makes advantage of web technologies to deliver extra material for traditional classroom learning.

The most important reason for the impressive development in virtual education is the substantial availability of open online courses. MOOCs are open online courses that allow for limitless participation and unrestricted access via the internet. Since its inception in 2008, MOOCs have garnered a lot of attention. To far, more than 800 universities throughout the world have introduced at least one MOOC.

Conferring to a survey by KPMG and Google, India's online education sector was worth $247 million at the end of 2016, and is expected to grow to $1.96 billion by 2021[1]. In addition, after the United States, India's online education market is the second largest. According to the report's estimates, the paid market share for virtual learning services will increase by at least six times by 2021, to around 9.6 million consumers.

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Advantages

• Online learning saves both cost and resources.

Because online education is delivered via the internet, it may be accessed from anywhere at any time. Early in the morning, late at night, at home, in the cafeteria, or on the train, you can access the information. Because the content is usually preloaded, you can download the lessons / content and watch them whenever you like. In addition, when compared to traditional education, the cost of online education is quite inexpensive. There are also significant savings on lodging and transportation costs. You don't need to buy books because all of the content is readily accessible.

• Working professionals find it easy to take courses.

Working professionals who are unable to leave their jobs to seek higher education can benefit greatly from online education. They can choose from a range of courses through online education, which can help them find new professional opportunities. This is backed up by a survey from giants like KPMG and Google, which claims that employee training and online certification is the fastest-growing segment of online education.

• India's initiative.

The Indian government is also taking steps to encourage virtual learning. They've launched Swayam, a platform that provides free education and certification courses to anyone. This initiative's main goal is to give high-quality education, for which they have collaborated with IITs, IIMs, and NPTEL. They're also forming partnerships with colleges so that students can get college credit by taking online courses. The government has also launched the National Optical Fibre Network in order to set up digital ecosystem in India. The major goal of this project is to improve broadband access and build a robust network. The government has also launched an online National Digital Library(NDL) with more than 17 million digital books and periodicals.

• Getting noticed by recruiters.

Most universities in the United States now offer at least one online course. Many famous colleges in India are also offering online courses, where admittance would normally be difficult and expensive. Employers accept online courses completed at well-known universities and institutions. Employers are also aware that online education necessitates self-discipline, motivation, and other qualities that they seek in a candidate. As a result, extreme caution should be exercised in selecting the university from which you will pursue your studies.
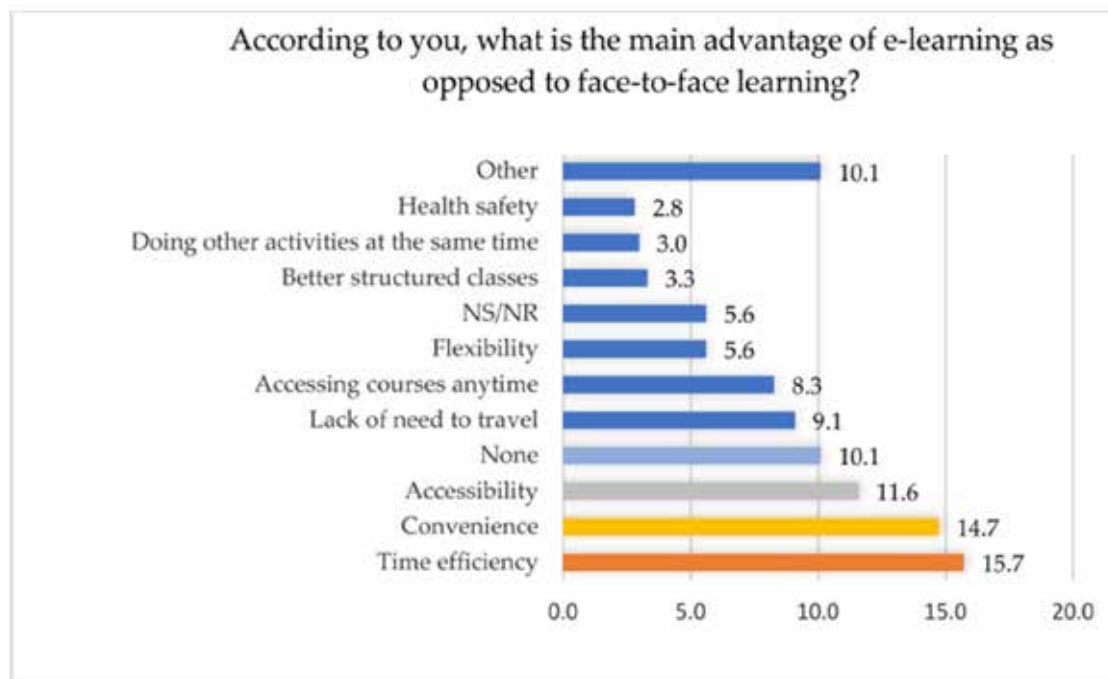

Figure 2. Advantages of e-learning vs. face-to-face learning.

Some key features of the e-learning process have been discovered, all of which are vital in optimising it in specific circumstances such as the one caused by the COVID-19 pandemic. The following are some of these elements:

1. Managing and developing the Internet infrastructure to prevent disconnections.
2. The use of familiar and comfortable instruments to assist students in comprehending and assimilation of information

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4. The use of social media to form learner communities in order to reduce isolation.
5. Using a range of interactive approaches, such as discussions or exploration learning.
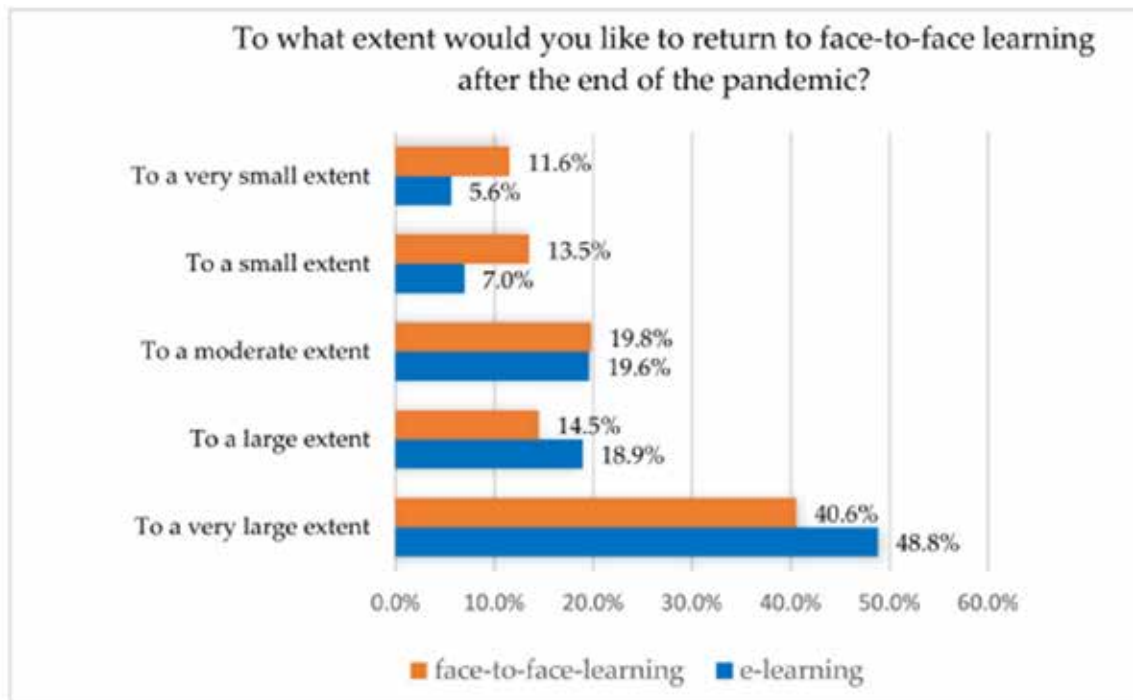
Figure 6. Students' preferences to return to face-to-face learning after the end of the pandemic.

Factor for Success

Self-control and drive have been highlighted as two important criteria in predicting online course performance. Students' capacity to organise, monitor, and assess their own behaviour, cognition, and learning processes is known as self-regulation. Self-regulation is not sufficient for academic achievement; students must be intrinsically or extrinsically motivated to employ self-regulatory tactics effectively in order to thrive in online courses[3]. Self-control is essential for success in online courses. As a result, students who were not self-regulated exhibited academic procrastination, greater disorganisation, and employed less cognitive and metacognitive methods to achieve their learning objectives.

A recurring subject in the research on online learning settings is the influence of peer engagement on community building. While the majority of students said there was no significant difference in their learning, several students did agree that there was a distinction of community and student interaction between the two settings.

Drawbacks

While taking an online course, students may encounter a variety of disadvantages and possible concerns. Academic rigour is a subject that is frequently questioned. When assessing the academic rigour (or lack thereof) of an online course, it's vital to keep in mind the many various ways in which online education might be offered.

The lack of a substantial difference revealed that the mode of delivery, such as technology vs face-to-face classroom, had no impact on learning results. The quality of education, according to proponents of online instruction, is influenced by the instruction technique contained within the means of delivery, implying that learning outcomes are influenced by the quality of instruction.

The creation of community and interaction with peers in a regular classroom setting vs an online learning is an issue that is extensively addressed. According to the literature, a strong and active social interaction on campus can be used to describe both high persistence and satisfaction in students, leading one to believe that the lesser persistence rates of online courses are due to a lack of community and social connectedness in the online learning environment [4]. Peer contact can have a detrimental impact on various components of the learning process. Furthermore, students should be educated that the social and emotional components of learning are just as essential as the technical knowledge they are given. The proper design of courses as blended classrooms or the formation of cohorts in an online space both have the potential to minimise some of the shortcomings associated with online learning while also creating a feeling of community and connection amongst students.
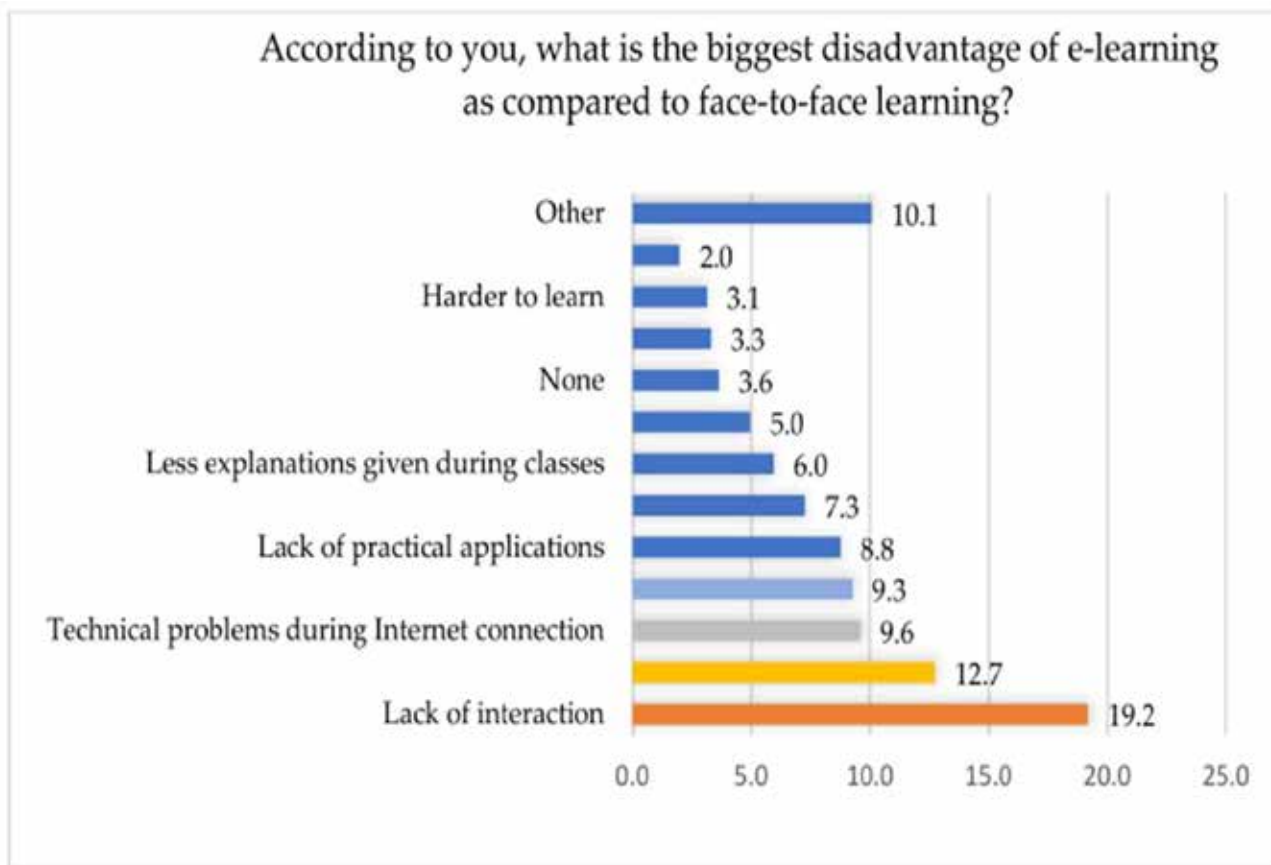
Figure 3. Disadvantages of e-learning vs. face-to-face learning.

While some research indicates that a lack of community in the online learning environment is a problem, others argue that student-student contact is far less of a worry than student-instructor and student engagement.

When creating an online course, it's also important to keep cultural constraints in mind. Instructional innovation will continue to symbolise the dominant culture, which limits those who are not part of it. Another barrier that has come to light is the divide between the 'haves' and the 'have-nots.' Technology is an area that is often overlooked when it is integrated into daily life, yet many people do not have access to it owing to a lack of financial resources [2].By increasing the number of computers and other devices available to students, the underserved will eventually have access to the global info on the web.

Feedback

Both instructors and students emphasised the necessity of feedback as a critical component of online course success. Many teachers discussed the advantages of the online course's customised environment and how to make the most of one-on-one communication. Because of the simultaneous connection that an instructor must have with the students in a regular classroom, differentiating education can be challenging. Another crucial part of communication is responding to students immediately [5]. When attempting to develop a relationship of trust and degree of comfort, both

instructors and students stressed the significance of fast and helpful feedback. When utilised in conjunction with bulk class emails to target repeating questions and communicate with the quieter students, the more personal emails were found to be effective.

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Conclusion

Overall, the advantage of online courses exceeds the obstacles that students confront, according to the report. To adequately evaluate the benefits, obstacles, and beneficial tactics of successful students, additional study on a bigger scale is needed, involving more students, teachers, and online courses. It's possible that the students who responded to this poll had a different experience than those who took online courses elsewhere. Given the tiny number of participants, this study is based on a very small sample of students who were all registered in the same course and taught by the same teacher. Analysing different courses may provide a distinct perspective on the sort of information that is better suited to an online environment.

The absence of viewpoint supplied by online educators is another shortcoming of this research. The unique pedagogical and instructional strategies used by online educators are not taken into consideration in this study. The demographic of interest in this study is high school students enrolling in an online college course. Furthermore, a high school student's experience and viewpoint of an online college course may differ from that of a college student. More insight into the diverse viewpoints of students based on age and aptitude would be gained by expanding the group under study.

Online courses are novel method for students to expand their educational horizons and compete effectively in the ever-changing educational landscape. Students who pursue higher education using online courses must be self-motivated, self-reliant, and responsible students. Students may better assess if online learning is right for them by understanding their learning style and talents. Curriculum of a course promotes students' indulgent and envelopment which aid instructors and course planners. Online courses rely heavily on communication between professors and students in the form of encouraging remarks, constructive criticism, and timely feedback. A well-structured course also includes clear instructions and an easily navigated track. Overall, online learning allows students to learn in an environment that is not constrained by geography or time. Online learning has the power to break down barriers erected by poverty, geography, disability, and a variety of other issues.

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