

ONLINE EDUCATION: CHALLENGES, OPPORTUNITIES AND FUTURE PROSPECTS

Prof. Mukesh Jain*
Shreshtha Sharma**

ABSTRACT

To battle with the outbreak of dangerous virus named Covid-19 and to ensure the safety of people, Government imposed lockdown as a security measure. In this restrictive policy, people were requested to stay at their homes and almost every service except essential services was shifted to online mode. This pandemic situation has transformed the functioning of education sector. As educational institutions were shut down because of the lockdown, the education was provided online with the help of technology on various online platforms like Google Meet, Zoom, Microsoft Teams, Cisco WebEx etc. The shift from traditional classroom to virtual classroom was sudden and unexpected and from teachers, students to institutions at large find it difficult to adapt to this change. On one hand online education has brought several challenges but on the other hand it has opened the door of endless opportunities for various stakeholders of education sector. In management institutions the focus of teachers is to prepare students to become managers in future and impart soft skills to the students in addition to the theoretical and practical knowledge. This research paper intends to identify various challenges and opportunities for teachers, students, educational institutions, government and society. It has also provided the overview of future prospects of online education in India and initiatives of National Education Policy 2020 for the development of online education. An outline on online education appropriate behavior has been given which can be considered in order to ensure behavior suitable for online education system. Moreover, a blueprint has also been given in order to make online education effective and purposeful.

Keywords: *Post-Covid Era, Management Teachers, Online Education, Challenges, Opportunities.*

Introduction

Online education is a form of education where knowledge is imparted or gained electronically. Online Education can also be defined as imparting knowledge to the students with the help of a device having internet connection. Internet has brought the education at each and every person's personal computer, laptop, tablet or even smartphones. Evolution of computers, emergence of internet and development in information and communication technology has made significant changes in the education system. Covid-19 has changed the scenario related to the education sector, the virus still has its adverse effects on us and its different variants are creating a lot of troubles.

According to **Harasim (1989)**, Online education is a new domain of learning that combines distance education with the practice of face-to-face instruction utilizing computer-mediated communication.

* Professor, Department of Business Administration, University of Rajasthan, Jaipur, Rajasthan, India.

** Research Scholar, Department of Business Administration, University of Rajasthan, Jaipur, Rajasthan, India.

Kearsly (2000) reported the following themes that shape online education: collaboration, connectivity, student-centeredness, unboundedness, community, exploration, shared knowledge, multisensory experience, and authenticity.

Ascough (2002) suggested that online education has several features such as (a) it provides a learning experience different than in the traditional classroom because learners are different, (b) the communication is via computer and World Wide Web, (c) participation in classroom by learners are different, (d) the social dynamic of the learning environment is changed, and (e) discrimination and prejudice is minimized.

Online education is a need of today's time and can also be seen as a precautionary measure. Online education provides a variety of course material in the form of audio, video, text, images etc. On one side, it is very convenient to access online classes from any location and it also provides a flexible learning environment. The investment needed for online classes is much less as compared to the offline classes. A device with an internet connection is all that needed in an online class. The travel cost, infrastructure cost and costs associated with maintaining the campus have been cut down. On the other side, unequal network access, poor digital infrastructure, lack of motivation or support, background noises, inattentive students etc. create obstacle in providing education online.

Objectives

The objectives of this research paper are written below:

- To identify the challenges and opportunities of online education for various stakeholders.
- To assess the future prospects of online education from the prospective of National Education Policy 2020 in India.
- To lay out an outline for online education appropriate behavior.
- To provide a blueprint in order to make online education effective

Review of Literature

Various studies have been conducted to identify challenges and opportunities of online teaching. Few studies are mentioned below:

Girisha Lakshman Naik et al. (2021) studied "*Online Teaching and Learning of Higher Education in India During Covid-19 Emergency Lockdown.*" Results of this study indicated that lack of infrastructure, technical tools and the internet access are the major obstacles of online education. It has been suggested that online classes should be interactive without internet connectivity issues and institutions must provide training related to online teaching and learning.

Mohd. Imran Siddiquei and Shashank Kathpal (2021) in their research article titled "*Challenges of Online Teaching During Covid-19: An Exploratory Factor Analysis*" provided a model of challenges of online teaching during covid-19. They have identified six challenges related to teachers, institution, students/learners, infrastructure, content and motivation.

Aman Jindal and Bhupinder Pal Singh Chahal (2020) studied "*Challenges and Opportunities for Online Education in India.*" This study identified internet penetration, low cost, ease of doing course, initiative by government, employer's recognition are the factors contributing in the growth of online education. Insufficient facilities, limited social interaction, credibility and motivation have been recognized as the challenges of online education.

Lokanath Mishra, Tushar Gupta and Abha Shree (2020) studied "*Online Teaching-Learning in Higher Education During Lockdown Period of Covid-19 Pandemic.*" The major challenge of online education identified was unstable network connection. Other challenges were electricity connection, lack of meaningful interaction, lack of motivation and lack of conducive learning environment at home.

Seema Sareen and Anita Nangia (2020) studied "*Online Teaching During Covid-19: Attitude and Challenges faced by School Teachers.*" The result of the study indicated that lack of appropriate resources, technical problems, lack of training, difficulty in assembling all the students for the class, lack of cooperation from the parents, lack of internet facilities to the students, difficulty to follow up the learning of students are the major challenges of online teaching faced by teachers.

Amit Joshi, Muddu Vinay and Preeti Bhaskar (2020) in their research article titled "*Online Teaching Amidst COVID-19 in India: An Outlook*" identified the challenges faced by teachers in online teaching from their homes. The result of this study revealed that teachers of higher education institutions faced many issues in online teaching such as lack of technical facilities, family interruption, lack of

training, lack of clarity, lack of technical knowledge. It is suggested that higher education institutions should develop their infrastructure keeping in mind the importance of technology in education. Financial support to teachers like interest-free loans to buy updated laptops, cameras, microphones, etc. will make the teachers well equipped to take sessions, even at home. The government of India should adopt measures to enhance the digital infrastructure of the country and maintain socio-economic equity.

Challenges of Online Education

There are various challenges of online education for teachers, students, institutions, government and society at large. These challenges have been described below:

Challenges of Online Education
Internet Connectivity Issues
Unavailability of Necessary Resources
Students' Inattentiveness
Inadequate Technological Proficiency
Indiscipline
Lack of Motivation
Breakdown in Communication
Distress During Abrupt Transition
Obstacles in Evaluating Students' Progress
Data Theft
Physical and Psychological Ailments
Lack of Support
Troubles in Practicing Time Management
Hardship in Maintaining Work-Life Balance

- **Internet Connectivity Issues**

Internet is the most important component in online education. Unable to access the network, slow internet performance and frequent disruption in the network are some of the major internet issues. In the absence of proper network connection, it is impossible to conduct or join online classes. It is a big challenge to ensure uninterrupted internet connection.

- **Unavailability of Necessary Resources**

Electricity plays a great role in online education. Frequent power cut creates an obstacle in online classes. Devices like a smartphone, tablet, computer, laptop and its connectivity to the internet is essential to be able to be a part of virtual classroom. Unavailability of the appropriate resources and its inaccessibility is one of the major challenges of online education. Moreover, this challenge is more prevalent in the rural areas and people deprived of the basic amenities.

- **Students' Inattentiveness**

Ensuring students' attention and their active participation is a major challenge for the teachers in online classes. In contrast to the traditional classroom, the environment of the virtual classroom is very lenient and it gives the liberty to the students to engage in any behavior by turning their camera and mic off. Moreover, in the homely environment conversation among the family members and background noises create disturbance and prevent the learners to concentrate properly.

- **Inadequate Technological Proficiency**

The virus Covid-19 forced the use of technology as most of the services except essential services were being given online. Not everyone was well-versed with the use of technology and adapting to the culture of online classes was seen as a threat at first because of the lack of skills to deal with technology. Making use of technology while teaching or learning was a new and a challenging experience for both the teachers and the students.

- **Indiscipline**

Indiscipline is more visible in online classes as students turn off their camera and mic and do not respond to the teacher. Students misbehave in the form of cheating during online exam, sleeping or eating during class, roaming around in house, talking to family members, browsing social media sites, joining through fake names etc. Moreover, awful cases of sharing lewd and obscene clips by the students during online classes were also detected. Maintaining Discipline is a major challenge and more of a responsibility of the teachers as well as of the parents.

- **Lack of Motivation**

For teachers, motivating themselves and at the same time motivating the students for online classes is a great major of concern. There are so many reasons of lack of motivation for online education such as, disrupting home atmosphere, apprehension about academic performance, lack of support (from family members, friends, colleagues, institution), limited social interaction, adaptability issues etc.

- **Breakdown in Communication**

Online communication can substitute face to face communication but cannot replace it. There are various technological issues like interrupted network or slow internet which make a communication gap between the teachers and the students. Moreover, breakdown in the communication makes the learning process ineffective and also adversely affects the rapport between the two.

- **Distress During Abrupt Transition**

Outbreak of Covid-19 forced the educational institutions to shut down as a preventive measure for the war against the pandemic. The teaching and the learning process was vigorously shifted to online. This pandemic leads to online education which was sudden and unexpected change in the education sector. The managing of this change was a challenge as teachers and the students were finding it difficult to adapt to the technology.

- **Obstacles in Evaluating Students' Progress**

Students do not interact much in the online class or it is also a possibility that they login, disable their camera and mic and engage in any activity other than study. Students do not provide feedback and because of this it is difficult to know whether they have understood the concept or not. In addition to this, cheating is much easier to do in online exams and students may use unfair means to get good grades. This dishonesty and unresponsiveness from students' side make it difficult to assess students' progress in a legitimate manner.

- **Data Theft**

Protecting the data from various kinds of cybercrimes such as identity theft, cyberstalking, phishing, hacking, denial of service attack, etc. is the major challenge. Technology has made our lives convenient but at the same time it has opened doors for data breach incidents. So, data security is a challenge of online education and teachers and students should carefully deal with it.

- **Physical and Psychological Ailments**

On one hand, increased screen time and less physical movements have caused various physical health issues like eyesight problems, headaches, backache, obesity, muscle rigidity or spasm, etc. and on the other hand less social interaction, boredom, worry about academics, mood swings etc. have taken a toll on the mental health of teachers as well as of the students. In addition to this, attending online classes for prolonged period may cause exhaustion and fatigue which eventually increases the level of stress and anxiety.

- **Lack of Support**

When there is lack of support or understanding from family members, colleagues, friends or social groups it is a challenge to be motivated in these circumstances. When a teacher takes an online class and the family members are reluctant to cooperate in terms of maintaining silence or share his/her part of household duties then the online education seems to be so much hassle and resulting which the learning process becomes ineffective.

- **Troubles in Practicing Time Management**

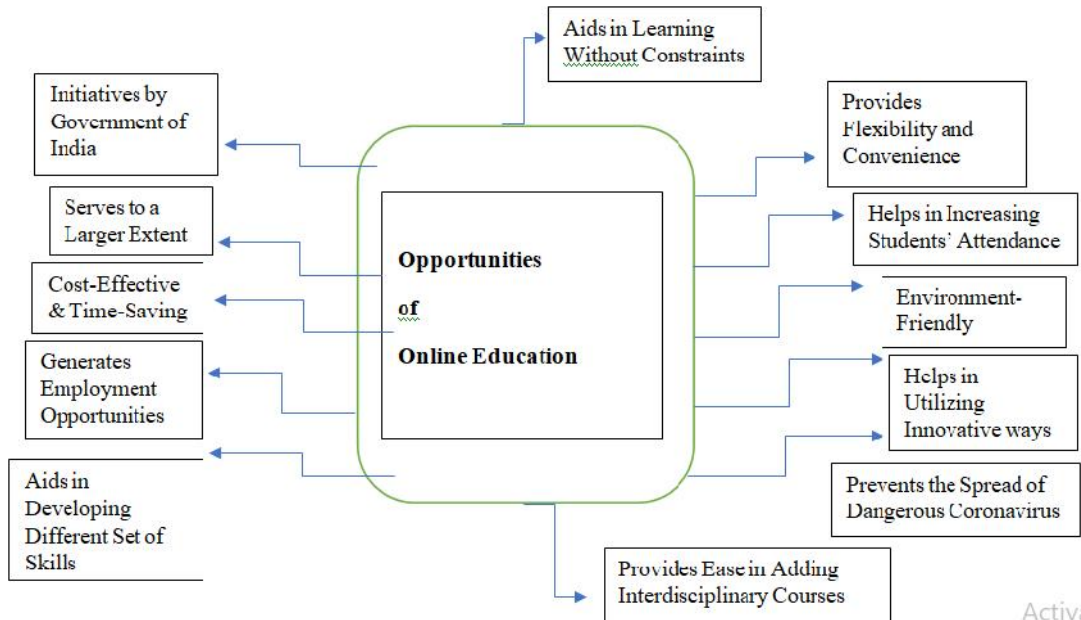
In online education, the teachers need to prepare course material online, make arrangements for its presentation, and design the assignments to be sent to the students. The workload of teachers has been increased in Post-Covid era. Setting priorities, organizing tasks and scheduling the entire day are the crucial elements of time management. In online classes, managing time is of great importance because the time also gets wasted in handling the network issues and checking the activeness of the students.

- **Hardship in Maintaining Work-Life Balance**

As the teachers are taking classes from their homes, there is no clear boundary between personal work and professional activities. In addition to this, there is no fixed hours of working while working from home so striking a balance between personal and professional life is a major challenge which if not dealt with utmost care can result into stress, anxiety and depression.

Opportunities of Online Education

Apart from the various challenges, online education has also a positive and favorable side. Several opportunities of online education are written below:



Online education provides the opportunity to **learn without constraints**. Without leaving the comfort of homes one can browse multidisciplinary courses from various educational institutions that may be outside the learners' city, state or even nation. Also, online education provides **flexibility** and enable the learners to schedule the learning process as per their own **convenience**. In online classes the students have the liberty to join from any place at their own convenience, so it helps in **increasing students' attendance**. In addition to this online education also contributing in **preventing the spread of the dangerous coronavirus**. For the online education technological proficiency is must, so in the process of learning online an individual **develops a different set of skills**. For the management institutions it is a favorable opportunity to **add interdisciplinary courses** in the curriculum without the need of making expensive arrangements for it, in a way online education is **cost-effective** for the educational institutions. Online education is **economical** and advantageous for all the parties concerned because it lowers down the travel cost or cost associated with the course material. It is also **time-saving** as learners or the teachers are not required to travel, all they need is to login to the portal from their computer or laptops. Management teachers also have the opportunity to present the learning material in various **innovative ways** because in online education different applications or software may be used to keep the learners engrossed during the online classes. Because of utilizing innovative ways, online education is **suitable for variety of learning styles**. Online classes can be conducted on a larger scale, in other words there is **no limitation** of learners or teachers in a particular session. Online education can also be seen as **environment-friendly** as it has reduced the need of transportation which curtailed the pollution and carbon dioxide emissions. In addition to this, it has also diminished the need of paper consumption as learning material and assignments have been digitalized. If we look at the larger picture, then it is one of the major sectors of the Indian economy which is developing, making profits and **generating employment opportunities**. The **Government of India has also taken various initiatives** to promote online education in the nation. Major initiatives include National Digital Educational Architecture (NDEAR), PM eVIDYA programme, DIKSHA (Digital Infrastructure for Knowledge Sharing), SWAYAM (Study Webs of Active Learning for Young Aspiring Minds) etc.

Future Prospects of Online Education

New technologies have opened the door of endless opportunities. Looking at the rise of pandemic in the nation, the educational activities were shifted to online. Time is unpredictable and level of uncertainty rises as far as Covid-19 is concerned. The end of this pandemic is unforeseeable and the

waves of covid-19 one after another force to believe that this virus is going to stay with us for quite some time and the wait may be longer to be back in the Pre-Covid era. Online education has become a vital element of education system and as per the report released by **KPMG India and Google** named “**Online Education in India: 2021**”, the market for online education in India is expected to witness a great growth of eight times in three years, i.e., from USD 247 million in 2016 to USD 1.96 billion in 2021. The number of enrolment of users may grow to 9.6 million users by 2021 as compared to 1.6 million users of online education in 2016.

According to the KPMG report, number of students selecting online platforms for preparing for competitive exams expected to increase in upcoming years. The different online platforms could either act as a substitute or complement the existing offline test preparation market to provide coaching to students for various exams such as JEE Mains, NEET, CAT, NET & JRF Bank PO, and CLAT. It is projected that the category of test preparation through online education will grow at a CAGR of 64% in 2021. It is also predicted in the report that by 2021, there will be nearly 735 million internet users in India, which will lead to increase in traffic for online education players.

National Education Policy (2020) and Online Education

National Education Policy (2020) focused on the importance and growing need of online education. This policy has come with some initiatives comprising pilot studies and installation of virtual labs for experiment-based learning, the development of well-designed and structured online teaching tools and methods, teachers' training, digital infrastructure, tele-classes, courses and availability of study material in various regional languages to reshape the system of education in India. It also emphasizes the online assessment and examination and development of digital repository, content creation and dissemination.

Teaching-learning e-content will continue to be developed by all states in all regional languages, and by other bodies (Such as-NCERT, CIET, CBSE, NIOS) and will be uploaded onto the **DIKSHA (Digital Infrastructure for Knowledge Sharing)** platform. This platform may also be utilized for Teachers' Professional Development through e-content. Teachers will undergo rigorous training to become high-quality online content creators. The possibility of providing adequate access to **SEDG (Socio-Economically Disadvantaged Groups)** students through suitable digital devices, such as tablets with pre-loaded content, will be considered and developed. The mass media, such as television and radio will be extensively used for telecast and broadcasts of educational programmes.

An autonomous body called **National Educational Technology Forum (NETF)** will be established with the objective of providing a platform for using technology to enhance learning experience and evaluation for both school and higher education. An expert body within NETF would facilitate decision-making on deployment and use of technology and also provide latest knowledge, research and consultation regarding it. NETF will organise multiple regional and national conferences, workshops, etc. to solicit inputs from national and international educational technology researchers, entrepreneurs, and practitioners.

Various educational software will be made available to teachers and students at all levels. It will be accessible to students of rural areas and to the students with disabilities. The policy addressed the issue of unexpected change, lack of training and technological issues and it has focused on developing digital infrastructure and ensuring equal use of technology.

It has also emphasized on digital literacy and learning of contemporary subjects such as artificial intelligence, big data analysis, and machine learning as we are in a digital era. After looking at the future prospects of online education, it can be said that online education will witness great growth as Government and common people have understood the benefits of technology in education sector. On one level, The Government is making strategies to give a boost to online education and on the other level, the students, teachers and every component of educational system is attempting to deal with this change and reinforce it at the same time.

Online Education Appropriate Behavior

As the physical classrooms have their rules and protocols, the online education should also be governed by code of conduct. An outline of appropriate behavior for online education has been given below:

- In online education, checking for fleeting errors in the system, internet issues or any other technological trouble are important.

- Ground rules for attending the online classes should be set by the institution itself or by the teachers at their own level for the particular session. For example, rules of asking questions may include using the chat box or raising hand before unmuting the mic.
- Teachers need to make frequent checks on the visibility of the screen and the audibility of the voice or sound.
- Students should give their focused attention during the online classes. They must interact when they are asked about their opinions. In addition to this, behaviors like scrolling the social media sites, talking to friends or family members, eating, sleeping, roaming around in the house during the online class should be avoided.
- The selection of location for attending online classes should be chosen with utmost care. Selected space should be free from internet connectivity issues and background noise. Also, there is an option on the online platforms to select any background of your choice which should be selected as chaotic background creates distractions.
- Institutions and the teachers need to look into the matter of indiscipline seriously and sternly. Indiscipline can be in any form such as not responding, mocking, using foul language, frequent interruptions etc.
- The participants must be alert and watchful while sharing the material related to the subject. Presenting any inappropriate material may cause discomfort and embarrassment.
- Students must be punctual and should login at the given time, complete assignments within the given timeline, greet the teachers and behave respectfully.
- The attire selected for attending online classes should be appropriate. Dress should be such which makes the person look presentable and decent.
- The topic to be covered in a particular session should be carefully planned well in advance looking at the time constraints. Also, quizzes, oral tests may also be conducted to assess how well the teaching has been converted into learning's.

Blueprint for Making Online Education Effective

Few recommendations have been provided in order to make online education fruitful for various stakeholders of education sector:

- In online education, it is advisable to the management students to maintain self-discipline and stay interactive during the online class. As interaction is must while learning management skills. To stay interactive, it is required to be focused on the lecture and for staying concentrated it is suggestive to occupy a silent place at home for the purpose of taking online classes where background noise or other disturbance cannot create distraction.
- Management teachers are also working from their homes and the homely environment may create interruption while giving the lecture. It is advisable to teachers to avoid distractions specify the space only for the purpose of conducting online class. The space should be such where there is no disturbance and internet speed is also strong.
- Management institutions must invest their efforts and resources to conduct various webinars, faculty development programmes to provide training to teachers to use technology properly and make online classes successful.
- Learners in rural areas are deprived of basic resources such as internet, device, electricity necessary for online education. Government must develop digital infrastructure and ensure equal access of appropriate resources for all the sections of the society.
- Practicing time management is advisable to both the teachers and the students. As online education provides more flexibility in scheduling the day which could result in procrastination and pending tasks. Setting priorities and avoiding distractions highly recommended in order to complete the tasks assigned.
- It is also advisable to set the protocols of attending online classes and make the students aware about the protocols and the consequences of not following them. The rules may be regarding the status of mic or video, use of chat box, attendance, asking questions etc.

- Boredom is likely to be more prevalent in online classes, for this it is advisable to the teachers to make the class interesting and interactive. Teachers should motivate the students to discuss their ideas and opinions so that they feel engaged.
- To make online education effective, it is recommended to make sure that there are no technical glitches before and during the online class. Investment in suitable broadbands or modems is required for strong internet connection.
- Institutions on their level may provide their support to the deprived students. They may utilize their contingency funds in order to make essential and basic resources needed in online education to those who are in need.
- It is recommended to both the teachers and the students to have a positive frame of mind and to stay motivated until the pandemic situation gets normal. Engage in activities that bring happiness and understand that online education is also contributing to the academic excellence.
- Efforts must be put into develop rapport among the students. In online classes because of less interaction among the students, they are unaware about who their classmates are, it is advisable to the teachers to give group assignments to the students to foster teamwork among the students and make them a better communicator.
- The digital platforms have made it easy to record the lectures and make it available as and when required. The recorded lectures are helpful and beneficial for those who couldn't attend the class or for those who want to visit that class again for revision and seek clarity on certain aspects.
- In online classes as the students keep their mic and video off during the class, to ensure that they have understood the concept, it is advisable to conduct doubt clearing session at the end of the class where the students can ask questions verbally or by writing their questions in the chatbox.
- It is suggestive for the teachers to obtain feedback from the students right after the online class so that the errors can be corrected. Also, taking feedback from the students can help to create a good atmosphere in the classroom because when students think that their opinions matter, they are more likely to engage in the learning process.
- To know how well the students have learned and gained knowledge during the online classes, the teachers are required to assess and evaluate the level of understanding of students with the help of quizzes, oral tests, written test, weekly assignments etc.
- It is advisable to the management teachers to strike a balance between their personal and professional life. When there is a clear boundary set for personal duties and professional commitment, teachers can concentrate properly and prepare themselves well for delivering the lectures. It would increase the quality of online education.
- In this digital era, it is highly recommended to put efforts in order to prevent cyber-attacks. Creating strong passwords, keeping the system up-to-date, avoiding sharing personal information online, installing a network security system in the device etc. are some of the major methods by which cyber-attacks can be dealt with wisely.
- In order to overcome health issues, it is advisable to both the teachers and the students to have proper diet and adequate sleep. Moreover, by engaging in physical activities like sports and yoga, practicing meditation, taking frequent breaks from the screen attending online classes in proper light and maintaining right body posture would help a lot in sustaining good health.
- It is hard for the students to stay focused for a long time without the breaks between the online classes. They may feel exhausted and exasperated also. It is suggestive to add frequent breaks between online classes so that their minds get required rest and they are able to retain the information and knowledge gained in the previous class. Moreover, frequent breaks may help in improving concentration and it also diminishes the strain on the eyes.
- As students are learning from their homely environment, their parents have also involved in the online education system directly and indirectly. Parents should motivate their children to exhibit discipline in online classes. They must encourage their children to be punctual, interactive and focused. The role of parents of students attending virtual classes is to pay attention on the activities of their children so that they do not get themselves indulged into immoral, illegal, objectional and maleficent actions.

- It is advisable to create congenial learning environment in the online education system. As the homely environment can create distractions, efforts must be put in to remove background noises and avoid having personal conversations during online class so that a favourable atmosphere can be maintained. Also, it is advisable to the teachers to support the learners in order to develop confidence and motivation and to encourage their participation. Teachers may address students' issues and needs related to online classes and must put efforts to resolve them. A code of conduct for virtual classroom may also be developed to ensure congruent learning environment.
- Internet service providers must develop a scheme for offering uninterrupted internet and free or low-priced broadband access, device and its installation. They may also waive the internet charges that occur during the online classes. Also, internet service provider should follow the principle of net neutrality which says that there should not be discrimination in providing access to the internet service.
- Central Government or State Government must focus on providing a regulatory framework to govern the online education system. The regulatory framework is vital not only to ensure quality online education but also to prevent the misuse of internet as an essential resource of online education.

Conclusion

The emergence of Covid-19 has shown the importance of technology in every sector and education is no exception. Online education kept the teaching-learning process continued when educational institutions were shut down as a precautionary measure to stop the coronavirus spread. The shift from traditional classroom to virtual classroom was unexpected and challenging because conducting and attending the online classes from computers or smartphones at home was unconventional. Internet connectivity issues, unequal access of digital infrastructure, lack of technological skills, lack of support and motivation, physical and mental health issues and data privacy and security etc. are prominent challenges of online education. It has provided convenience, flexibility and opportunity to learn beyond boundaries and this digital education sector is a growing sector of Indian economy and providing employment opportunities. National Education Policy (2020) has also focused on developing digital infrastructure and providing necessary devices and educational software to teachers and students at all levels. The online education can be made effective by avoiding distractions, maintaining discipline, developing technological proficiency, practicing time management, obtaining feedback from students etc. Government is also making efforts and taking initiatives in order to develop digital infrastructure and to ensure equal access to online education but a lot more needs to be done in this area. The importance of offline classes should not be overlooked as they are less distracting and more structured learning environment can be experienced in offline education system. Online education system is the need of the hour as the coronavirus cases are escalating. Institutions may also resort to hybrid model of learning where students get the liberty to attend the classes in both online and offline modes. Be it online mode or offline mode, everyone must follow the covid appropriate behavior and should adhere to the guidelines set by the Government regarding the pandemic and the online education as well as offline education.

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