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E-Learning In India Duringcovid-19: Challenges And Opportunities

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Abstract: E-learning has been adopted as a way of use of information technology in education institutions and becoming an integral part of the learning process. With e-learning, anyone can access information without being restricted to knowledge of distance, time, and space. India has a population of 34 crore studentsand with most of the institutions of higher education dependent on the conventional 'Gurushishya Parampara' of the physical classroom learning process. The COVID-19 pandemic has been badly disrupted the education system in India. To eradicate this serious issue of educational disruption due to the COVID-19 pandemic, the only way to establish a consistent structure for the next course of action is to transition to e-learning, where both teachers and students need to turn to a digital platform.Whereas parents need to do so performing the position of administrator cum facilitator in such a way that minimal disturbance is caused to the education. The specific objective of this paper is to assess the role of E-Learning in India during COVID-19 and what are initiatives, challenges, and opportunities with reasonable solutions.

Keywords: COVID-19, E-Learning, Digital Divide, MHRD, Students and Teachers

1. INTRODUCTION:

E-learning facilitates learning by expanding and complementing face-to-face learning instead of just replacing it. The word 'e-learning' first originated in the united states in the 1990s, but became popular in the late 1990s.As many HR activities, it was focused on earlier innovations such as computer-based teaching, on-line teaching, open or distance learning, and informal e-learning based on information management methods. E-learning is delivered through websites and the intranet.Provision can also be made for online guidance and discussion boards. Content could be distributed via PowerPoint, audio and video clips, drag-and-drop questions, Pdf, website links, and web-enabled platforms and educational communities.

E-learning is not so much about technology as about learning based on technology.In its completely integrated nature, e-learning seems to be a more systematic approach to learning than previous developments, particularly when contrasted with several other learning approaches.The online classes can be taught via video conferencing, student assignments can be submitted via Google Platforms. The majority of these channels free to operate, making it convenient for students and teachers alike (Wadhwa et al. 2020). The effect of the digital age in learning and teaching is gradually becoming one of the key relevant and widely debated trends in contemporary educational policies in the world, especially in developing countries (Kalolo,2019).

The situation of the pandemic has shifted the world with rapid changes. Just now, the economy is being negatively affected due to the shutdown. Similarly, the education sector is still clashing the effects of the lockdown. The shutdown accelerated for adopting emerging technologies. The unexpected lockdown during the Covid-19 pandemic has forced schools and teachers in both public and private institutions into a crisis mode in remote teaching. The outbreak of COVID-19 has more effects on over 120 crores of students and youth all over the world. In India, more than 32 crores of learners are being affected by various prohibitions and the national lock-down for COVID-19.According to the UNESCO survey, there are approximately 14 crores of primary and 13 crores of secondary students are affected which are the two most troubling levels in India.After studying the situation of the coronavirus pandemic, the WHO recommended to preserve social isolation as a first preventive measure stage. So, every country began the lockdown action and split the infected people. Sectors of Education like Schools, colleges, and universities have been closing down. (Jena,2020).

If time progresses without an immediate response to the end of the Covid-19 crisis, school, university and college suspensions will have not only a short-term impact on the standard of learning for more than 300 million individual students in India, and will therefore have far-reaching economic and social consequences. This pandemic has also greatly affected the higher education system, which is a core determinant of the nation's economic future. A large number of Indian students, next only to China, enroll in foreign universities, especially in countries worst affected by the pandemic, the United States, the United Kingdom, Australia, and China (Choudhary,2020). UNESCO's New Global Coalition for Realistic Solutions continuity to access to education at this pandemic hour seeks to find sustainable ways to pool resources and skills, and to channel free innovative solutions and online equipment ranging from powerful methods such as national cloud services, or as basic as radio programming, and easy smartphone applications (UNESCO,2020).

2. SOME INITIATIVES AT THE NATIONAL LEVEL:

University Grants Commission (UGC)India's leading regulatory body for higher education, withthe collaboration of the Ministry of Human Resources Development (MHRD) Under the Govt. of India, has made continuous efforts to implement e-learning initiatives even during the COVID-19 pandemic in India. Some of the essential steps to incorporate e-learning are: -

1."Vidya-Daan," a programme focused on the crowdsourcing of teachers' content, was planned to synergies the country's innovations by supplying teachers and students from the various Metro cities to the remote areas or smallest villages for efficient qualitycontent for e-learning that can be downloadable at anywhere, at no price and at any time.

2.Weekly Practice Program is CCT(Creative and Critical Thinking) to improve learner cognitive skills and create interest by relating learning to real-life circumstances. Teachers can also use these things to facilitate conversations and involve learners in self-learning adventures.

3.Government of India's iGotprogramme uses DIKSHA for COVID-19 training of physicians, nurses, ASHA staff, NCC, NSS, NYKS volunteers. Between April and June 2020, more than 17 lakh individual training sessions have been performed and well, certified.

4. PM eVidya declared under the AtmaNirbhar Bharat policy that DIKSHA is the 'one nation; one digital platform' for education in India. DIKSHA is being converted into a forum for rich and diverse curriculum, linked to the e-content requirements of teachers and learners for all states and UTs, accessible via digital devices, to ensure continuity of access and learning experience.

5. Online MOOC courses related to NIOS (classes 9 to 12 of open school) are uploaded to the SWAYAM portal; about 92 courses have begun and 1.5 crore learners are enrolled. Teachers and students can access all courses modules-text, videos, evaluation questions, etc. through SWAYAM. Various online software like Zoom, Google Meet, YouTube, etc. are used for online courses and teaching.

6. We can access e-Textbooks using the e-PG Pathshala digital platform and phone app (Android, iOS, Windows) for learners, mentors, teachers, and parents. Around 600 eBooks, which includes approx. 377 digital textbooks from class I to XII and 3,500 NCERT video and audio contents, is availablein different languages (Hindi, English, Sanskrit, and Urdu) in the public domain.

7. Apart from the preventative measures to be taken by academic institutions to deal with the rising situation of COVID-19, UGC has undertaken all steps to ensure that all higher educational institutions maintain regular interaction with students and teachers by electronic communication and keep them completely updated so that there is no distress among students, teachers, and teachers.

Table 1: Initiatives by State/UT regarding e-learning

STATE/UT	**INITIATIVES**
Andaman & Nicobar Islands	Doordarshan Local Broadcast, Tele-Classes, Radio Classes, and Digital Learning contents Online.
ANDHRA PRADESH	T.V & Radio Lessons, SCERT & ICT Training, Abhyasa APP for students and teachers, Primary school students through various programs on T.V, and for doubts Toll-free centre,Facebook live training program, etc.
ARUNACHAL PRADESH	Radio School, Online Classes Programme on TV, Live Classes from EDUSAT, etc.
ASSAM	Gyan Brikshya, Biswa Vidya, TeleClasses through Doordarshan, Career Guidance Portal, etc.
BIHAR	Unnayan Bihar, Vidyavahini Bihar App, MeraDoordarshanMera Vidyalaya, Digital Education Portal, Bihar Easy School Tracking (BEST), etc.
CHANDIGARH	Project Phoenix, Initiative by Khan Academy, under STCS the Online Teaching and learning for (OoSC), Online Evaluation, Kishore Manch, etc.
CHHATTISGARH	PadhaiTunharDuvaar (PTD), DIKSHA, DiGiDuniya (ICT at Schools), etc.
Daman and Diu &Dadra and Nagar Haveli	Various Survey, E-portal Adhyayan, Learning through Workbook, E-Notes, Vande Gujarat, etc.
DELHI	“Parenting in the time of Corona”, Digital Entrepreneurship Mindset class,Online Capacity Building Programme (OCBP), Online Maths classes, etc.
GOA	E-content and Repository, “Effective Planning for Achievement of Learning Outcomes”, Online Training Programs for Special Educators, etc.

GUJARAT	Command and Control Centre (CCC), School Monitoring App, Gyankunj 2.0, Samarth 2.0, Facebook Workplace & Workchat, Vanchan Abhiyan, Career Counselling Portal, Science of Learning Portal, 'Parivar no maalo-salamatanehumfaalo' program, etc.
HARYANA	Ghar Se Padhao WhatsApp Campaign, E-Mega PTM, Various Digital Learning Links, EDUSAT Broadcast on Television, etc.
HIMACHAL PRADESH	Har GharPathshala Campaign, Online program of Education (MeraGhar Meri Pathshala) for CWSNS, "Karona, ThodiMasti, ThodiPadhai", Sampark Didi App, Swayamsidham, Sameeksha - Shiksha Saathi Mobile Application, e- Samwad, etc.
JAMMU & KASHMIR	Jammu and Kashmir Knowledge Network (JKKN), Radio Classes &TeleClasses, Kinemaster, Bodh App, etc.
JHARKHAND	"HamaraDoorDarshanHamara Vidyalaya", DigiSATH, Mohalla schools, etc.
KARNATAKA	MAKKALAVANI, PARIKSHAVANI, ETB (Energized Textbooks), etc.
KERALA	AvadhikalaSanthoshangal (Happy Vacation Times), AksharaVriksham (Tree of Letters), SAMAGRA Resource Portal, "First Bell", DIKSHA initiative, Hi-tech lab scheme, etc.
LADAKH	"Department of School Education UT Ladakh", "DIKSHA", etc.
LAKSHADWEEP	KITE - VICTERS Educational channel,
MADHYA PRADESH	Digital Learning Enhancement Program (DigiLEP), Online Lectures/ Broadcast through TV/VC, Top Parent App, CM RISE Digital Teacher Training, Gyan Pitara, etc.
MAHARASHTRA	DIKSHA Abhyasmala campaign, BolkiBalbharti Audiobook, Bookyboo, mahacareermitraapp, etc.
MANIPUR	Lairik app, "BOSEM eBook", etc.
MEGHALAYA	E-Learning Portal, Free Online Course for Teachers, e-scholar portal, etc.
MIZORAM	Online Edu-Challenge 2020, Tutorial Class on TV, DIKSHA Mizoram, etc.
NAGALAND	Pre-Telecast Preparations, 'DoSE Nagaland', 'School Education, Nagaland', IEC materials, etc.
ODISHA	Odisha Shiksha Sanjog, Doordarshan, Odia, DIKSHA Portal, Madhu App, E-Vidyalaya App, Odisha Education Resource Portal, etc.
PUDUCHERRY	VetriNichayam, DTH TV Channel, Conduct of Online Classes, etc.
PUNJAB	"Edusat Punjab", DTH channel Swayam Prabha,Mobile Application & System Software (named iscuela learn), ICT Computer Labs and Smart

	Classrooms, etc.
RAJASTHAN	Project SMILE, Shikshadarshan, Shikshavani, Hawamahal, Kala Utsav, DIKSHA – RISE, Shaladarpan, Shala Samvad, etc.
SIKKIM	SIKKIM EDUTECH APP, SAMVAAD TV, Facebookprograms, etc.
TAMIL NADU	TN-DIKSHA, Tamil Nadu Teachers Platform (TNTP), KalviTholaikatchi, TNSCERT YouTube channel, Student Mental Wellbeing in Partnership with UNICEF, Tamil Nadu VagupparaiNokkin, etc.
TELANGANA	Telangana Repository of Open Educational Resources (TROER), DIKSHA- TELANGANA,'English Language Proficiency', SIET, etc.
TRIPURA	State Repository of Open Educational Resources (SROER), "EmpowerU Shiksha Darpan", etc.
UTTAR PRADESH	Prernaki e-Pathshala, UP SCERT, DIKSHA, etc.
UTTARAKHAND	Sampark Didi Mobile App, Gyaandeep Programme, State Education portal (e-portal), etc.
WEST BENGAL	BanglarShiksha Online, E-learning Portal, TV Channel like Zee 24 Ghanta &ABP Ananda, etc.

Source: India Report Digital Education, MHRD, 2020

3. OPPORTUNITIES/POSITIVES EFFECTS:

New threats and new patterns have emergedas a consequence of the outbreak of Covid-19 in the higher education system, including teaching-learning, teaching methods, assessment & evaluation, and management. The Indian system of education has been allowed to transform from the conventional system to the new age. The following aspects may be added to consider the positive impacts.

1. **Blended Learning:** COVID-19 has increased the adoption of digital education technology. Higher education institutions have moved towards a blended model of education. It motivated both teachers and students to become more tech-savvy. New ways of implementing and measuring learning have opened up tremendous opportunities for significant improvement in the field of curriculum development and pedagogy.
2. **Learning Management System:** Use of learning management systems by schools and universities became a great demand. It opened up a great opportunity for various industries for developing and improving e-learning systems for use in academic institutions (Misra,2020). Online course and service providers like YouTube, Unacademy, Eduncle.com., India Education, Aglasem.com, Byjus, Virtual classrooms, etc. got increasing demands in the current market.
3. **Flexible Schedule**: Students and teacher can schedule the classes on Google Meet, Zoom, YouTube, etc. according to free time available to them which make comfortable conditions for both learner and teacher. During lockdown, teachers have to perform various tasks and training so through e-learning software they were easily doing time management. Students and teachers can agree flexibly on the specific teaching times and then meet online. This not only saves precious time that one can better invest in learning, but also money, which can be much better spend on other things than commuting.
4. **Collaborative work:** The crisis of the COVID 19 expanded collective teaching and learning for pupils, teachers, and institutions to a large extent. The student community has got

the opportunity to learn from any institution in any part of the world. The teacher group has a chance to learn and teach from and to everyone from any part of the globe, with the cooperation of teachers from any part of the globe. Besides, institutions benefit from the organization of online academic conferences, Webinars, meetings, intellectual talks, workshops, induction services, faculty development projects, etc. with the help of other institutions from the country or abroad (Misra,2020).

5. **Improvement of Resources:** There is a big opportunity for higher learning institutions to deals and begin with refining the standard of instruction and supporting materials used in learning and teaching method. This will equip the institution to incorporate a blended learning model in the sense of future which will add progress and accountability to the training process. This lockdown has given enough opportunity and time for the development of e-content.

4. CHALLENGES OF DIGITAL EDUCATION:

The education sector has suffered a great deal from the outbreak of COVID-19. Adopting e-learning technology without careful planning will cost a lot of money, e-learning products that are not desirable and lead to problems. It has had many negative impacts on education, some of which are as follows:

1. **Students:** Students from Ladakh, Lakshadweep, Northeast states and Bihar, etc. are neither having android and smartphones, very fewComputers/Laptops due to various financial problems or constraints (MHRD,2020). Students with disabilities are lacking behind in online classes. Learners belonging to science and medical streams are not able to practice in labs and performing experiments as they do in offline classes. They are facing various health-related issues and feel stress as students study for long hours on smartphones/computers for online classes. Due to inconsistency an irregular schedule is harming the physical well-being of students andgoing for long hours of sleep.

2. **Educational Institutions:** From an infrastructural point of view, researchers have revealed that all the higher education institutions, schools, and colleges, are not ready or willing to perform online technology-based education and evaluation. All teachers from higher educational institutions are not trained or certified to teach online methods and software. Some educators are not ready for the immediate adaptation of the internet form of teaching-learning. The online teaching of a non-qualified teacher cannot reach expectations and learning goals for students (Bhowmik,2020).

3. **Parents:** Due to lockdown people working in the informal sector lost their job and no source of income leads to non-payment of fees. There are also other issues for parents in addition to payments for programs that the schools and universities are not prepared to offer. Who's going to pay for the data? Is there enough space and peace at home for students to focus on? How do you teach children at home to follow digital self-restraint? There are huge obstacles for working parents and disadvantaged people in the slum areas and rural areas.

4. **Government:** Lack of implementation of standard policies Like DIKSHA as the initiative fails to achieve its target goal. The government was not able to provide adequate digital infrastructure; i.e. was not able to reduce Digital Divide in urban-rural areas. Lack of clarity in the guidelines of government as people were not able to understand and follow up properly. Due to lockdown people working in the informal education sector lost their jobs and the government fails to solve their issues and the government was not able to solve the issue of fees between parents and educational institutions.

5. **Miscellaneous:** The connection of electricity is again an important challenge for both teachers and students of the rural area. Inadequate Internet Penetration according to the report of TRAL in India the internet penetration is 68.6 crores (49%) active users of internet in

January 2020 with 138.00 crores Population in 2020 which is far less as compared to developed countries. 64.85% of Urban Area internet penetration with 48.30 crores population in urban area. 20.26 % from rural area internet penetration with 89.70 crores population in the rural area. Slow internet speed as a result students and teachers cannot attend all the classes online and there is a lack of Social Cohesion.

5. SUGGESTIONS:

1. To ensure the availability of digital infrastructure in rural areas to bridge the digital divide in rural and urban areas.
2. To use interactive Voice Response (IVR), SMS, and Radio to help students with no internet access in areas that are lacking behind in core infrastructure of connectivity.
3. Public-private partnership in Indian educational institutionsfor efficient education and learning system in terms of excellence and quality improvement.
4. As looking towards rising cases of COVID-19 in India there should regular cleaning and sanitization of schools, colleges, universities, premises, offices, and surrounding areas near the educational institutions.
5. The government of India with the collaboration of state governments must implement the policy measures related to e-learning at the ground level and ensure proper implementation and monitoring.
6. Parents should also focus on their children and be a teacher in the house so that students attend all online classes as scheduled by their respective teachers. Parents should also take part in E-PTM.

6. CONCLUSION:

ThisCOVID-19 crisis has impacted immensely the education sector of India. While many challenges have emerged, new opportunities have also evolved. To safeguard education from the drastic effects of the pandemic situation, it is extremely important to revisit the future of learning and the change that could be done by equal access to quality education. India is not sufficiently prepared to provide education get to all regions of the country via digital channels. This is the students who are not fortunate, like the rest, will suffer from the choice of digital channels. But various universities and schools with the help of the Government of India are still trying to get to grips with various solutions to solve these issues and dilemmas. It's only through digital technology or e-learning that quality learning can be made available to everyone without being validated in actual classroom space.The lack of capability, technology infrastructure, and financial assets are major limitations in the implementation of e-learning in India.

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