PROSPECTS AND PROBLEMS OF ONLINE CLASSES DURING COVID-19

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Abstract:

The online mode of teaching-learning process is the best choice available during the lockdown situations around the world. The online classes have quite a few advantages that are worth consideration. Flexible learning in the existing schedule is one of the best advantages of online mode of education. The educators are using on online video conferencing platforms such as Zoom, Google meet, Microsoft Teams, WebEx Meet etc. Online Learning Management Systems (LMS) like Google Classroom, Moodle and many more are also emerging during these pandemic situations for connecting the students, and teachers. There are different facets of online classes that do not reach a state of perfection. The sudden shift of education from the traditional chalk and talk mode to virtual mode comes with several challenges too. The study aimed to identify and analyse various issues relating to online education. The pandemic situation created an opportunity to learn by sitting at home under lockdown situations, but there are inequalities in imparting education to all. The outcome of the study shall be useful for the government and concerned educators.

Keywords: Covid-19, Online Classes, ICT, Virtual Education, Strategies for Flipped Education.

1. INTRODUCTION

There are more than 138 countries and 1.37 billion students are affected, according to UNESCO, during the outbreak of COVID-19. The forcible and unexpected lockdown made more than 60.2 million school and university teachers denied going the physical classroom. The e-education came to rescue the education sector during the whole world is under lockdown. The concept of flipped classroom as emerged to save the students and teachers to continue the learning process in a different way than the existing one.

2. NEED FOR THE STUDY

In a report issued on April 21, the United Nations Educational, Scientific, and Cultural Organisation (UNESCO), the multi-dimensional agency, highlighted another concern about the online shift. There are many like about taking online classes that do not mean it has reached a state of perfection. There are several challenges and shortcomings noticed when the education subjected to a sudden shift from existing traditional mode to virtual mode. Hence, the present is needed for finding out the reasons for the challenges and finding ways and means for overcoming these.

3. OBJECTIVES OF STUDY

The study main objective to study the aftermath affects lockdown due to COVID-19 on the existing education system.

i. To overview the affects of Covid-19 on education in general and higher education in particular

ii. To study the need for innovative modes of teaching-learning to mitigate the lockdown situation

iii. To enumerate various problems and prospects of online teaching methods or tools serving to the students and teachers

4. DATA COLLECTION

The study mostly uses the secondary data available in newspapers, websites, and the government released reports/ documents to face the adverse situations created by pandemic covid-19 lockdown situations. Specifically, opinions shared by various people across, such as teachers, students, and heads of institutions across the country also considered for the study.

5. REVIEW OF LITERATURE

Covid-19, as a global pandemic, has called for social distancing. It has made people mandatory to sit indoor and sitting idle indoor may lead to mental stress. Hence, to keep people engaged and free from mental stress, online learning can play an important role. Online learning is the best solution during this pandemic situation. Teachers can use virtual classrooms to teach from home with all the necessary tools, which makes the online sessions as effective as traditional ones. Pandemics often compel the learners to stay at home for a long period and obstruct teaching-learning process. Implementing new ideas, and strategies in a workplace can be difficult because of the beliefs and attitudes of the people working in that given place.

Al Meajel & Sharadgah, (2018)[1], Adopting new technology while teaching can also affect the success of students and educational institutions.

Protiva Kundu, (2020)[2], The COVID-19 outbreak and the subsequent lockdown resulted in the closure of schools nationwide. As a result, the Indian school system shifted away from traditional classrooms to a digital platform. This unplanned and rapid move towards online education has alienated a large number of 'digital have-nots' from virtual classrooms. Only a handful number of fortunate children are availing online education as only 24% households in India possess smartphones and 11.5% of the households, that have children of between the ages of 5 and 18, have a computer with an internet connection. However, from the first week of April, the lives of all these children have temporarily 'shrunk to just their homes and screens'.

Jena, (2020)[3], emphasizes on how online learning is beneficial during times of crises like work absences or pandemics. Therefore, some tools and techniques for online learning, which can ensure the continuity of learning, highlighted. Some emerging approaches of Government of India for online learning presented. Merits and demerits of online learning platform also discussed. Perceptions of learners and educators on the online learning system during lockdown are pointed.

UOH (2020)[4], The University of Hyderabad carried out an in-house survey with about 2,500 students on issues related to online teaching. Though 90 per cent of the respondents have a mobile phone, about 63 per cent of them could only access online classes infrequently or not at all. Interestingly, among the concerns

raised about online instruction, 40 per cent reported unreliable connectivity as being a major deterrent while 30 per cent cited the cost of data. Significantly, 10 per cent reported uncertain electricity supply as a concern.

Samuel Behera (2020)[5], the impact was more severe for disadvantaged children and their families. In India, where most people still live in rural areas, almost 70 per cent of children attend government schools. Nationwide digital learning is practically impossible in such schools and comes with its opportunity costs.

6. PROBLEMS OF ONLINE CLASSES UNDER LOCKDOWN SITUATIONS

The online classes have quite a few advantages that are worth consideration. Flexible learning in the existing schedule is one of the best advantages of online mode of education. The adjustability helps in maintaining a job while working on education. The students have the freedom to complete the lessons any time before a given deadline in the online classes. This allows students to complete their coursework without sacrificing hours at their home or precious time spent with family.

Online education is often more affordable[6]. In addition to sparing students the cost of travelling to campus, the flexibility of online learning often allows them earning money in their free time.

Digital education today is a mix between existing conventional methods like physical classroom teaching, existing reading material and new software- new media like pdfs.

The new developments enabling the introduction very new concept of on-demand access to content anytime, anywhere, on any digital devices. However, this unplanned and sudden emergence online education turned out to be challenging for both, the educators and students. The following are few problems or shortcomings identified which are hindering online classes to the students.

6.1. LACK OF ICT SKILLS FOR BOTH TEACHERS AND STUDENTS

The difficulty is the need for a different teaching methodology for teachers to adept the faceless, virtual education. The institutions without such setup face problems for these learning programs. Traditionally, Full-time students and teachers do not have proficiency in digital learning platforms, and most of them had never used the system before.

In a physical classroom setting, interaction is more dynamic and course instructors can stimulate feedback from students more easily, but with online classes, teachers need more creative ways that make the conversation interesting and productive.

6.2. LACK OF STABLE INTERNET FACILITY

Most of the third world countries including a country like India where internet availability to the common people is very minute and is unfortunately very low. There is every possibility to challenge this new virtual education model. Hence, the proper internet facility is the biggest challenge to virtual education. In the last two decades, there are efforts by the government to in improve ICT access to the people; still, India is facing the troubles in the paucity of internet connectivity.

The Niti Aayog[7], in its "Strategy for New India@75" report, highlighted the need for quality and reliability of the internet. It also stated that 55,000 villages in the country are without mobile network coverage. Holding classes for those students who have gone home during the crises is most problematic. Students belonging to urban households are more likely to have internet access, while students belonging to rural households merely have an internet connection. Among students from rural households, only 28% are likely to have internet access at home.

While Kashmir does not have access to 4G internet, students are still reeling under a double whammy of slower internet and it is tough for them to keep pace with their counterparts in other states. College institutions are finding it difficult to reach out to students with 2G internet.

6.3. LACK OF UNINTERRUPTED ELECTRICITY SUPPLY

India is facing a major challenge of extremely undependable power supply. It is an important facility for dependable services or issues like e-tests and e-exams, online classes. Students and teachers are under tremendous stress in this regard. The final year students are the worst affected. They have not passed out the course yet and preparation for Jobs or applying to universities for pursuing their higher education.

6.4. NON-AVAILABILITY OF COMPUTER DEVICE OR MOBILE PHONE

Access to the internet does not necessarily mean that a household has internet at home, as less than half of the households that have any access to the internet own a computing device. Some have access to mobile phones but students and teachers owning a computer and laptops are very few. Teaching on a mobile phone is very hectic for instance conducting lectures for 50 students on a mobile phone is a struggle in itself, teachers even will not be able to see students.

Although about 78 per cent of India's 1.3 billion population has mobile phones, in rural areas is around 57 per cent, according to the Telecom Regulatory Authority of India. Nearly 68 per cent of the students in higher classes have access to a smartphone, adopted a more staggered and online approach for them. As soon as a child joins class 12, preparation for the board exams or competitive exams begins.

6.5. ADVERSE PARENT'S FINANCIAL CONDITIONS

Online education is a new thing for school kids and more than them, their parents stressed to help them understand the e-assignment. Many school students have not received their school course yet and without textbooks, it is difficult for them to keep up with the virtual classroom activities. According to parents, e-education is not helping their kids much and they fear if students will get enough time to prepare for exams, with so many lost schooling days.

School students of age 4-2 hardly own mobile phones or know how to use them. Generally, teachers are connecting with them through their parent's phones that ultimately indulge parents in the process and it consumes their time. Mostly parents who are working from the home struggle between their work and child's education.

6.6. PRIVACY CONCERNS OF INNOCENT USERS

Over the past two months, the teleconference software Zoom has seen explosive growth; it is easy and convenient in use. However, the convenience has also come with increased scrutiny and a slew of uncovered security screw-ups. Privacy concerned people are finding it difficult to use such software.

The current situation is, of course, an unpredicted one. However, should always be prepared for such situations. The issue is not of a few weeks of online teaching and online exams. The real question is why our education system in such a digital era is lagging so behind. The need for e-education not confined to only such situations; our education planner needs to adopt more technological advancement in the curriculum.

7. PROSPECTS OF ONLINE EDUCATION IN INDIA- GOVERNMENT INITIATIONS

Government of India formulated various initiatives for online learning during lockdown. Since countries all over the world have gone into lock downs due to Covid-19, educational institutes have been no exception. During the Covid-19 outbreak in the entire nation, the country is facing major crisis in many sectors, but the worst hit sector is the education sector, as most of the exams have been cancelled during the final assessments. Students and teachers are struggling to have access to uninterrupted and seamless quality of the Internet connection. At the same time, the country should not compromise student's much desired academic progress.

Hence, educational institutions should adopt smart solutions to overcome the endemic crisis by adopting the online mode of education.

Many State Governments of India are also exploring online learning platform for accessing online educational resources, during the ongoing lockdown. They are looking to design ways to help students continue with their learning during the national-wide lock down due to Covid-19. The University Grants Commission (UGC) has promoted online classes across the different universities during the lockdown phase to make sure that the students do not miss the classes during the time. UGC has advised all higher educational institutes in the notification dated 11th April 2020 to take preventive and precautionary measures for maintaining social distancing, staying in the confine homes/ hostels and utilize the time productively by engaging in online learning during the lockdown period for Covid-19.

Following is the list of some of digital initiatives of MHRD & UGC along with their access links for school students as well as UG and PG level education:

 i. SWAYAM online courses: learners may viewed/ accessed best teaching-learning resources delivered earlier on the SWAYAM platform, free of cost, without any registration. Students/learners who registered on SWAYAM (swayam.gov.in) in the January 2020 semester can continue their learning as usual.

ii. UG/PG MOOCs: hosts learning material of the SWAYAM UG and PG (Non-Technology) archived courses. Link- https://ugcmoocs.inflibnet.ac.in/ugcmoocs/moocs_courses.php.

iii. e-PG Pathashala: hosts high quality, curriculum-based, interactive e-content containing 23,000 modules (e-text and video) in 70 Post Graduate disciplines of social sciences, arts, fine arts and humanities, natural & mathematical sciences. Link- epgp.inflibnet.ac.in

iv. e-Content courseware in UG subjects: e-content courseware in 87 Undergraduate courses with about 24110 e-content modules is available on the CEC website at http://cec.nic.in/.

v. SWAYAMPRABHA: is a group of 32 DTH channels providing high quality educational curriculum based course contents covering diverse disciplines such as arts, science, commerce, performing arts, social sciences and humanities subjects, engineering, technology, law, medicine, agriculture etc. to all teachers, students and citizens across the country interested in lifelong learning. These channels are free to air and can also be accessed through your cable operator. The telecasted videos/lectures are also as archived videos on the Swayamprabha portal. Link- https://www.swayamprabha.gov.in/

vi. CEC-UGC YouTube channel: provides access to unlimited educational curriculum based lectures absolutely free. Link- http://www.youtube.com/user/cecedusat

vii. National Digital Library: is a digital repository of a vast amount of academic content in different formats and provides interface support for leading Indian languages for all academic levels including researchers and life-long learners, all disciplines, all popular form of access devices and differently-abled learners. Link- https://ndl.iitkgp.ac.in/

viii. Shodhganga: is a digital repository platform of 260000 Indian Electronic Theses and Dissertations for research students to deposit their Ph.D. theses and make it available to the entire scholarly community in open access. Link- https://shodhganaa.inflibnet.ac.in

ix. e-Shodh Sindhu: provides, current as well as archival access to more than 15000 peer-reviewed journals, a number of bibliographic citations and factual databases in different disciplines from a large number of publishers and aggregators, to its member institutions including, centrally-funded technical institutions, universities and colleges that are covered under 12(B) and 2(f) sections of the UGC Act. Link- https://ess.inflibnet.ac.in/

x. Vidwan: is a database of experts which provides information about experts to peers, prospective collaborators, funding agencies policy makers and research scholar in the country. "It is hoped, that these ICT initiatives, which cover a broad range of subjects and courses and have been prepared by experts, will provide an excellent learning experience to all. Link- https://vidwan.inflibnet.ac.in/

Emerging approaches of Govt. of India for online learning in a press release put out by the MHRD on March 21, 2020, the Union HRD Minister shared various free digital Online Learning platforms for students to continue their learning during Covid-19 based school closures. The World Bank is also sorting emerging

approaches undertaken by different countries, and storing all related information which may be useful to others.

xi. DIKSHA[8] portal contains online learning content for students, teachers, and parents aligned to the curriculum, including video lessons, worksheets, textbooks and assessments. It developed under the guidance of its national boards of education CBSE and NCERT; more than 250 teachers, who teach in multiple languages, have created the content. QR codes in textbooks encourage students to go beyond the book.

The app is available to use offline. e-Pathashala is an online learning app by NCERT for classes 1 to 12 in multiple languages. The app houses books, videos, audio, etc. aimed at students, educators and parents in multiple languages including Hindi, Urdu, and English. The National Repository of Open Educational Resources (NROER) portal provides a host of resources for students and teachers in multiple languages including books, interactive modules and videos including a host of STEM-based games. Content mapped to the curriculum for classes 1–12, including aligned resources for teachers.

xii. Swayam Prabha is a group of 32 Direct to Home (DTH) channels devoted to telecasting of educational programs round the clock and accessible all across the country. The channels air courses for school education (class 9-12), higher education (undergraduate, postgraduate) as well as for out-of-school children, vocational education and teacher training. Subjects include arts, science, commerce, performing arts, social sciences, humanities, engineering, technology, law, medicine, and agriculture. Schedules for the television broadcast as well as archived programs are available on the website.

8. PROSPECTS- INITIATIVES BY PRIVATE IT FIRMS

There are many live-video communication platforms are available in the web, but some of the free online platforms. Large corporate private IT firms across the world developed these live video meeting platforms. They are as listed below which can be used by learners of all categories.

Jitsi [9]**:** Jitsi is a collection of free and open-source multiplatform voice (VoIP), videoconferencing and instant messaging applications for the web platform, Windows, Linux, macOS, iOS and Android. The Jitsi project began with the Jitsi Desktop (previously known as SIP Communicator). Jitsi has received support from various institutions such as the NLnet Foundation, the University of Strasbourg and the Region of Alsace and it has had multiple participations in the Google Summer of Code program. Key features of Jitsi Meet are encrypted communication (secure communication) As of April 2020, 1-1 calls use the P2P mode, which is end-to-end encrypted via DTLS-SRTP between the two participants.

Skype: Video and audio calls with talk, chat and collaboration features. However, it merged in Microsoft Teams later.

Microsoft Teams[10]**:** Microsoft Teams is a proprietary business communication platform developed by Microsoft, as part of the Microsoft 365 family of products. Teams primarily competes with similar service Slack, offering workspace chat and videoconferencing, file storage, and application integration. Teams is replacing other Microsoft-operated business messaging and collaboration platforms, including Skype for Business and Microsoft Classroom. Microsoft announced Teams at an event in New York, and launched the service worldwide on March 14, 2017. On March 19, 2020, Microsoft announced Microsoft Teams had hit 44 million daily users, in part due to the COVID-19 pandemic. Microsoft reported that by April 2020, Microsoft Teams had hit 75 million daily users. On a single day in April, it logged 4.1 billion meeting minutes.

Cisco   Webex[11] is   an   American   company   that   develops   and   sells web conferencing and videoconferencing applications. WebEx founded in 1995 and taken over by Cisco Systems in 2007. Its headquarters are in Milpitas, California. On May 15, 2020, Cisco CFO Kelly Kramer reported in the month of April 2020, they had 500 million meeting attendees, and that equated to 25 billion meeting minutes, using its video-conferencing application WebEx. In September 2020, Cisco launched a new platform Webex Classrooms for virtual homeroom encounters

Zoom[12]**:** Cloud platform for video and audio conferencing, collaboration, chat and webinars. Zoom is a video telephony software program developed by Zoom Video Communications. The free version provides a video

chatting service that allows up to 100 devices at once, with a 40-minute time restriction-free accounts having meetings of three or more participants. Users have the option to upgrade by subscribing to one of its plans, with the highest allowing up to 1,000 people concurrently, with no time restriction. During the COVID-19 pandemic, there was a major increase in the use of Zoom and similar products for remote work, distance education, and online social relations. In April 2020, Zoom had more than 300 million daily meeting participants.

Google Meet[13]: Video calls integrated with other Google's G-Suite tools. Video meeting recordings, Screen sharing, join calls using Google Calendar. Google Meet (formerly known as Hangouts Meet) is a video-communication service developed by Google. It is one of two apps that constitute the replacement for Google Hangouts, the other being Google Chat. Google planned to begin retiring Google Hangouts in October 2019. During the 2020 COVID-19 pandemic, the use of Meet grew by a factor of 30 between January and April of 2020, with 100 million users a day accessing Meet, compared to 200 million daily uses for Zoom as of the last week of April 2020.

Facebook Live[14]: is a great fit for businesses, influencers, or individuals who are looking to broadcast demos, videos, or showcase their company culture while streaming live, followers on Facebook can comment and chat live, schedule videos ahead of time to gain excitement.

YouTube Live[15]: is a platform for demonstrating a product with live interaction, hosting an educational session to teach the audience with screen sharing or using a whiteboard, having features with location tags and advanced scheduling.

9. CONCLUSIONS

The outbreak of COVID-19, has affected 1.37 billion students due to the closure school and university worldwide. More than 60.2 million school-teachers and university-lecturers compelled to stay away from the physical classroom. The only choice left before educational institutions to import education during the lockdown period is the online education across the world including India. The government of India promoted various digital educational platforms, which gave accessibility to the teachers, students and researchers in universities and colleges for continuity of studies as well as ensure that there is no break in the classes. Pertaining to higher education, the University Grants Commission (UGC) has also recommended online classes across the universities during the lockdown period to make sure that the students have the classes during the time. It is observed that the online learning platforms are helping the students not only to get full access to the study material but also to allow them to engage in online classes and to interact with the teachers like in the physical classroom situation. It is also observed that the large corporate private Information Technology (IT) firms across the world developed these live video meeting platforms. Many live-video communication platforms came to light during the time, in which some of them are offered free to the common people to help them come out from the COVID-19 adverse situations. It is observed that the university, and college teachers are also using the online video conferencing platforms to mitigate the situations. Majority of the teachers are using platforms like Zoom, Google meet, Microsoft Teams, WebEx Meet etc., to teach the students with android phones with an internet connectivity. It is also observed that the Online Learning Management Systems (LMS) like Google Classroom, Moodle and many more are emerging during pandemic situations and developing them to use aftermath of Covid-19 for engaging the students and teachers. It is observed that the attempts of online educational mode are good, but not able to reach all the students due to various limitations such as not readiness due to non-plan and unexpected eruption of pandemic in particular, such as non-availability of ICT infrastructure, uninterrupted power supply, and non-availability gadgets like mobile phones, personal computers to financially weaker families. The significant observation is that the gap between poor and rich is widening due to imbalance of accessibility digital classes. The poor people are not catching the online classes bandwagon due to unaffordability financial conditions to purchase mobile phones, personal computers, or internet accessible devices etc., within a reasonable shorter time.

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