

# The Pros and Cons of Virtual Learning in India: An Insight During 'Covid Lockdown'

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## ABSTRACT

An invisible entity, through naked eyes, the virus, the pandemic (as WHO puts it), named Covid19 (or Corona Virus Disease) has created an environment of 'fear' across the world for the past few months and has spared none – the most developed economies of the 'Globalized' era as well as the struggling economies spread across continents. The impact is so big that the functioning of households, business organizations, religious and spiritual bodies, educational institutions, etc. is witnessing a sea change. Even our lifestyles have altered to a great extent. All this is actually attributed to what our minds think! The external environmental message is clear, shape up or ship out, no one wants to die nor wishes to see their near and dear ones falling to the same. It is our mind that has decided about the changes we need to bring in our activities in order to 'survive'. And hence, the mind knocks the 'Innovation' door quite often to find if there exists a solution for current and future problems. The same has been the case in our learning mechanisms, obviously both the formal and informal ones, during this period of 'lockdown'. Let us analyse this through a real-time observational study involving how our education system has changed and the impending pros and cons of the same.

**Keywords:** Virtual learning, e-learning, online education, pandemic, teaching, HEIs

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## INTRODUCTION

The pandemic struck our country when classes were in full flow, be it schools or the Higher Education Institutions (HEIs). For the schools, the Board examinations as well as the internal assessments, were on while the HEIs were preparing for the soon-to-start semester/annual/final examinations in March-April-May 2020. Suddenly, the government forced the government to adopt stringent measures, prominently the lockdown, due to which life received a jolt in our country. All sectors of the economy are bearing the brunt of this decision, and rightfully no other better decision existed at that moment of time because we were not prepared.

Coming back to our focus area, the education sector did find scope in online, virtual classes spread across the educational canvas from toddler education to the doctorate level. Some on-going examinations were put off but then those who were already conducted declared the results electronically, either through e-mails or WhatsApp messages. Even E-books are being shared for taking the studies further in the school's new sessions. Established school brands across prominent places in India have hooked on the internet based

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instructional mode using platforms like Google meet, Google classrooms/Hangout, Zoom, Extramarks, even You tube etc. for delivery on virtual classes to the pertinent publics and seek assignments and other evaluations from the students during the lockdown.

As far as the HEIs are concerned, various State Governments have already swung into action in State Universities to run the Virtual classes. Work-from-home culture, albeit still in infancy in India (exceptions of IT sector apart), yet the invisible 'Virus' made people adopt the same, may be in a hurry. Our mindsets are changing a bit in accepting this flexi-mode of study where there is no time limit; teachers can hook on to the virtual mode as and when students demand and/or they fix

the slots any convenient time for both. One advantage that appears here is 'learning' may get preference to the so-called 'number of lectures' organized in classroom mode, opine few. Those who have to learn can join by any means, thanks to the gadget-savvy new generation. But the issues and challenges are many, the poor telecom network (offering lower than 4G services on the 4G platform), inconsistent speed of the internet, bandwidth issues, hardware support issues, software mismatch, psychological apprehensions (dealt with later on in this paper), the inability of the instructor to cope with a session on a virtual platform, inability of the student to connect to the concept of online education, the essence of the class (room) missing, level of learner engagement, the nature of the subject; all these matter a lot!

## LITERATURE REVIEW

Innovation and disruption are the two most common terms in today's parlance, be it even the education sector. Either a crisis brings up an alternate model (as we are currently) or the profit crunch in the corporate pockets brings a 'disruption,' or the world calls for certain innovation as the betterment of some existing model. And today, it is the information technology that drives either disruption or innovation in the real sense. What could have been just a daydream someday comes up as a reality the next day. The pace is too fast. The same can be said about the E- or virtual learning.

E-learning, which is also known as web-based learning (or more so virtual learning), is defined as the delivery of education in a flexible and easy way through the use of the internet to support individual learning or organizational performance goals (Clark and Mayer, 2011; Maqableh et al., 2015). Initially, Smith (2009) stated that e-learning is among the most recent types of education systems that has been attracted the attention of educators in the world. E-Learning is the use of information and communication technology (ICT) to deliver information for education where instructors and learners are separated by distance, time, or both in order to enhance the learner's learning experience and performance (Keller et al., 2007; Tarhini et al., 2016). Horton (2011) defines e-learning as a set of instructions delivered via all electronic media such as the internet, intranets, and extranets. Thus, by eliminating the barriers of time and distance, individuals can now take charge of their own lifelong learning (Almajali et al., 2016; Bouhnik and Marcus, 2006; Fletcher 2005; Obeidat et al., 2015). E-learning environments reduce the cost of

provision and therefore increase revenues for academic institutions (Masa' deh et al., 2016; Ho and Dzung, 2010).

Web-based learning does not require extensive computer skills, although familiarity with computers and software (especially Web browsers) reduces the acceptance barriers (Steven, 2001; Tarhini et al., 2013a). Web-based learning generally fits into one of three major categories:

**Self-paced independent study:** Learners decide the calendar and study at their own speed. They can appraise the material for as long as necessary. Feedback from online quizzes/exercises takes the form of pre-programmed responses. Unfortunately, there is no one to whom the student can direct the queries. This form of study requires 'self-motivation' (Tsang et al., 2007).

**Asynchronous interactive:** The learner's schip in with an instructor and colleagues/peers, although not simultaneously. They attend classes whenever they need or until the course gets over. This approach offers support and feedback from the instructor. It also allows time for considered responses and so 'critical thinking skills' are enhanced (McCombs, 2011). This can improve an in-depth investigation of a subject. Moreover, it can also provide social support and encouragements for individuals and augment the whole endeavor put forth by group members (Benbunan-Fish et al., 2005). This will shift the concentration from the instructor-centrism to the learner-centrism approach (McCombs, 2011), thereby producing a more democratic environment in which the instructor becomes a lead for knowledge (McCombs, 2011).

**Synchronous learning:** Learners attend live lectures via computer and ask questions by e-mail or in real-time live chat. This format is the most interactive and appears like a traditional classroom. Flexibility is constrained by the previously determined lecture schedule. There are limited course offerings in this format due to high delivery costs (Weimer, 2013).

As far as adaptability is concerned, the successful execution of virtual learning tools depends highly on students' perception, motivation and hence adaptability to the same. In other words, user acceptance is a key issue in successful run of a Virtual Learning system. However, past studies have revealed that such an implementation is not merely a technological solution, but also a combination of many different factors – socio-cultural, person-centric or individual, organizational, etc. Some other studies have proved, although in a different country context, that variety in virtual education platforms, like mobile learning, virtual worlds,

e-portfolio, social media, MOOCs, etc. are crucial for this kind of learning.

## UNDERSTANDING THE RESEARCH GAP IN INDIAN CONTEXT

As explained above in the earlier section, instructional models vary from distance learning types which provide study materials for independent self-paced (asynchronous) study, to live interactive classes where students converse with a teacher in a class (few students to hundreds of them, as applicable and needed). For the asynchronous mode, the students study through the material and submit their assignments by a due date. They do this at their own pace within that time frame. Some contact programs, physically, do exist. On the other hand, synchronous online courses come about in realtime. The teacher and students all interact online simultaneously through texting, video and/or audio chatting. Hybrid, sometimes also called blended, courses are when students learn and interact both in-person and online. This is what suits India most in the current scenario.

Virtual learning or e-learning or online learning, many synonyms exist for a similar kind of education, where the teacher-taught interface is facilitated by a 'screen', is gaining importance now all across the world. It has been prevalent for many years in developed economies owing to obvious reasons but it is somewhat a newer concept in a country like India. The crisis may have made this mode to intrude everywhere, but then our educational systems on many dimensions are not tuned to its acceptance at one go. In the HEIs, the government-owned MOOCs (NPTEL, Swayam) are existing and has gained importance and relevance over the past few years, it is now that such a system is being made mandatory all across to minimize 'connection-loss' between teacher and the taught in the period of 'social distancing'. Schools, especially bigger and chain brands, did have a mechanism for virtual learning earlier but then a majority of schools are still not geared up to face the challenge, yet, the scenario for this kind of knowledge appears bright in the next few years and even the State Government schools have begun to shun the inhibitions about 'not-for-us' segment of virtual learning. Overall there are numerous challenges for the Institutions, Instructors as well as learners. There are many research gaps that could be identified through the available studies in this context, although outside India, and the impending scenario which we are facing now, and those pertain to the trio of platforms,

instructors (and instructions as well) and obviously the learners.

## OBJECTIVES AND RESEARCH METHODOLOGY

This paper aims to find out the key challenges emerging for the Virtual learning scenario in India (actually SWOC; strengths, weaknesses, opportunities and challenges) and whether the innovations occurring would suit us. It is purely a real-time observational study as the authors themselves are the instructors/trainers across academia and industry in the country.

## SWOC POINTERS AND FINDINGS

Challenges define opportunities, all across different segments. Whether it is the platform (Zoom, Google, Moodle etc.) or the Instructor (teacher/moderator/expert) or the learner (student/executive), challenges exist for all. Let us analyze one after the other.

Picking up the platforms for virtual learning, India has seen popular ones like Byju's, Vedantu, Meritnation, Toppr, Khan Academy, Coursera, Udemy, TopScholars, Toprankers, Google Classroom, edX, Duolingo, Remind, Photomath, Sololearn, Jitse, Zoom, to name a few. Zoom has seen a huge increase in downloads in India since quarantines and lockdowns were imposed to control the spread of the Covid-19 pandemic in the country. The app is not only being used for work but also for community purposes, yoga classes, book clubs, and amusement concerts, as reported by the Indian press. Zoom surged to become the top performing app in India on Google Playstore as it has been the most preferred one for official meetings and informal/social gatherings. According to Apptopia, which monitors app downloads, the daily downloads for Zoom have increased from around 1,70,000 in the middle of February 2020 to nearly 2.5 million in late March 2020. Rivals Tencent Conference, WeChat Work, Microsoft Teams and Slack have also seen a manifold increase in downloads in this period of a pandemic. While such apps attracted 1.4 million new users across the App Store and Google Play in the first week of January 2020, that figure jumped to a record 6.7 million in March 2020. Now the issue is which one to follow. Definitely the free ones are picked by the Institutions and individuals as there is much chaos now in the segment. Moreover, advisories issued from time to time do impact the preferences even in a very short time period; or in other words, anything may change overnight in this segment. Moreover, the flexibility to run, the variety of integrated services (modules), ease of



operation, security issues, etc. would define the success rate in the years to come.

On the issue of the instructor, more challenges exist. First of all, we need to understand who the instructor is – a teacher or a corporate person or simply a trainer. Then we should know his age group, the youngster – upto 35 years, middle-aged 36-50 years old aged 51-65 years or super senior citizen – above 65 years. The 'take' on the virtual segment is not uniform across these age segments. While the youngsters may be highly enthusiastic as being more tech-savvy but they lack requisite experience and flair to teach, which comes with practice; the middle-aged will do it quite comfortably but with certain restrictions, as they may be into other administrative works virtually. Exceptions apart, the last two age groups may refuse to align with this virtual learning due to their own apprehensions and not so friendly to the emerging technologies; neither they have lives a life where too much flexibility existed, but then they are robust, learned. The issue is how to create a judicious 'mix' of the age groups as all institutions may find such a scenario. Obviously, Government bodies make the people superannuate between age groups of 60-65 years. The other challenge faced here is the subject matter or content that needs to be delivered or placed online through some existing mode. Developing online content through mining is a big challenge, especially if online resources are considered. The academic depth of the instructor (here teacher) plays a vital role here. The proper adherence to the updated content and knowledge through various global resources makes the teacher, and hence, virtual courses in demand. That gets translated commercially later on. Yet another challenge is learner (student) management. It is really not possible to see virtually everyone of them, specially in a large group. How their body language goes for the entire session, a teacher is unable to see; hence, the effectiveness of the class is questionable on this behavioral dimension. Also, mere logins by the students, thereby displaying the numbers who have joined, do not necessarily mean that they are learning. Technical issues like network continuity on both sides of the screen are worrisome. Although in virtual learning, the number of participants can go up in hundreds involving any corner of the world, still the participant can gain personal attention. Of course, the classroom ambience will definitely be missing. Dealing with audience diversity turns out to be yet another challenge.

Coming to the learner side, it all depends upon the educational level at which implementation is being

applied, kindergartens, or lower primary or upper primary or higher secondary or college level or university level or research Institutions. Separate platforms exist for each of these segments. Involvement in virtual classes is the main issue. Above that is the computer literacy issue, specially in school education, most of the schooling in India is devoid of computer education at the basic level, in such a case it is a big problem implementing virtual education. Study-from-home entails computing and network facilities at home; again we fail here tremendously; however, Android phones are helping to a certain extent.

Perhaps the most universal challenge students face in online learning is the lack of face-to-face engagement with teachers and fellow peers. Online courses are typically conducted through a virtual learning platform. This platform may include reading materials, assignments, and even a chat room for class deliberations. Teachers can provide course instruction in a variety of ways, common being slide show presentations, posting videos, or even streaming lectures live. However, despite the range of ways instructors can promote 'student engagement', some students simply do not find a virtual classroom as engaging as a traditional one. For some students, the convenience of virtual classes can encourage poor study habits. Without a formal class schedule, the enticement to postponement may be stronger. With no in-person interactions with the teacher or with the peer group, it can be easy to forget assignments and deadlines unless the student keeps organized. Since most of virtual classes are not supervised in the same way as traditional classes, the student has a challenge to stay motivated and organized to bring out his or her best. Many students go for the earn-while-you-learn concept, which could be many but virtual learning suits them: flexibility and lower cost-benefit such students. More emphasis on self learning makes the students study more, look for more knowledge, although the trend is rarely witnessed across. Higher-order skills may seem to grow because high-level flexibility demands this. The Choice-based credit system is a flexible learning opportunity initiated by our very own University Grants Commission for HEIs.

Opportunities also lie to a great extent for the trained and skill persons who could not show or use their caliber before it includes a lot of people who can now develop as a freelancer imparting training in their 'hobby' sectors—dog training, personal counseling, cookery, artwork, embroidery, content correction, data analysis, data mining, photography and similar

3D artwork or painting, animations, cartooning, paper crafts, making throw-aways into home/office utilities, dancing—traditional and fusion, home remedies, yoga, story-telling, relations rebuilding, and so on and this may transform into a global opportunity.

## CONCLUSION

Actually innovations are being witnessed everyday in this age of technology. Learning too has changed from a total formal set up to largely informal, but the change is slow in our country. Nevertheless, the pace of adopting technology has been considered in India in the recent past. Despite a wide spectrum of challenges, we have been able to acclimatize ourselves with the virtual learning systems. We need to shed our inhibitions regarding this as a temporary arrangement, it is here to stay and also that virtual learning in totality is never going to be practiced in our country in the next 10 years to come, irrespective of the changing world order in the education sector. The deep penetration of Android handsets amongst the Indian youth has somewhat powered them to come closer to virtual learning. Tab based education has already been launched in some schools in India. Let us hope that mobile-led innovation in learning may become a trendsetter for many in the coming years. The material that is available for e-learning on a mobile device is specifically designed by expert instructional designers to make it compatible with a small screen. Due to increasing demand, e-learning is now a consumer-driven business wherein the content focuses on serving the client.

The available free online resource is set to be another boon for India in the learning process. The government's initiative on Massive Open Online Courses or MOOCs is going to serve as the base for online or virtual learning to flourish in India, especially with the HEIs. Gamification is yet another innovation in this context. Gamification integrates game mechanics and learning content to retain and perk up a person's skills using it. If properly implemented, it can make e-learning an extensive and novel way of education. Millennials are inclined towards using a mobile device, which gives support to gamification as an e-learning innovation. So the mobile phone would be another catalyst here.

The emergence of Learning Management Systems (like Moodle) is yet another innovation. It is a software application that helps us create, track, and report training program or educational modules anywhere using any device. Learning Management System is used to train employees, students or customers.

The technology is a driving force for the consulting industry wherein they specialize in various HR practices. Interactive Audio-visual learning is another Innovation here. Streaming videos online are now an everyday affair. YouTube is the second major search engine for creating and showcasing videos. It is a powerful way for the education and training industry. Many industries are embracing the online video learning platform for e-learning. Personalization of e-learning gives users the option to select a course and finish it at their own pace and comfort. It is customizable and compatible with the young generation, as there is a lot of flexibility here.

A very recent report citing the United Agencies has been published in the Indian press saying that any large-scale shift towards online education would deepen the socio-economic equalities and the virtual platforms could leave children vulnerable to sexual exploitation. It also puts online education as an 'illusion'. It fears that it could exclude poor students (one time cost in terms of gadgets and running costs like the network costs could deny them the education in e-mode), although it is said that in the longer run, the cost of education would go down! Unauthorized entries could create bigger problems where the playing field is so uneven like in India!

## SCOPE FOR FURTHER RESEARCH

A lot of scopes exist in this area as far as upcoming researches are concerned. Studies could be conducted on the learner and/or instructor engagement, motivational issues for clinging on to the virtual platform, technological interventions. It could reduce the social and economic concerns in this segment, behavioral problems like the originality of thought processes (online education tends to mimic its predecessors with minor improvements). Its sanctity as an evaluation system and vulnerability to cyberattacks on the intellectual properties of developers are the areas where research could contribute. Undoubtedly, a micro-organism could trigger such avenues of research is beyond one's thoughts!

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