

## FUTURE DIGITALIZATION OF EDUCATION IN INDIA AFTER COVID-19

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### ABSTRACT

*In this era ,Our kids have been encompassed by digital technology since their birth; ever since, their everyday life and practices have been entwined with smart devices such as smartphones, tablets, and social media. Digital technology has been thoroughly embedded with them ,how they live and learn. They have started interacting with digital technology already as toddlers if not even earlier, and their adult life will for sure be thoroughly embedded and intertwined with digital technology. Covid -19 scenario created an unprecedented time in which education is the biggest concern. Schools, colleges, and universities are closed for over a year now. Toddlers had not started their preschool journey yet. But now most educational institutes have opted for digital platforms for education. In this paper,we have discussed the future of education in India. We focused on Live classes, edTech Technology, proctored exams as well as assessment and assignments platform. We also tried to show the long term effect of digitization on education.*

*Keywords: Digitalization, Edtech Platform,Live Classes, etc.*

### Introduction

Technology is getting adopted in schools, colleges ,universities and other institutions due to this Covid 19 Pandemic. Will this situation remain forever or after covid 19, what will be the situation associated with the adoption of technology. Is the situation going to change forever? After Covid 19 ,there are drastic changes in the education delivery or assessment being conducted. In this paper, we are going to explore education after this covid era. Live classes ,recorded lectures , reduction of cost in infrastructure, reduction of overall cost in education , reduction of overall fees of courses, change in how universities are conducting examinations as well as many AI algorithms that can detect cheating of students in online mode. Online methods will be used to take assignments and mark them. Quality education and effective learning techniques are needed for the overall development of students. Expansion of capacity-building, skill development, practical knowledge enhancement, motivational programmes, use of modern tools and techniques and other welfare programmes are required for enrichment of young minds. But low-income government and private schools, colleges and other educational institutions may not be able to adopt modern tools and techniques such as e-learning, online teaching methods, study from home, virtual classroom techniques due to poor economic conditions ; so for these , the Government must take necessary steps to overcome this problem. Due to low income ,youtube and other apps , some educators are providing free lectures for students and learners. In future, most content of education will be online in free mode.

### Digitalisation of Education

Nowadays many schools, colleges ,universities and other institutions are busy in preparing live class technology or they are adopting various technologies to manage and impart live class . If we are considering the overall scenario of students that are at home and even teachers are also conducting live classes at their homes. So the current scenario says that there is no need for huge infrastructure associated with the institutions. As we all know ,educational institutions always spend more money on their infrastructure and maintain them. So after the Covid 19, there should be a shift of 50 to 70 percent classes in online mode instead of coming to campus to attend the classes as shown in Figure 1. This is the drastic change in the classes. Educational institutions are realizing the importance of live classes instead of traditional classes method and it is likely to play a key role in terms of scalability approach as well.

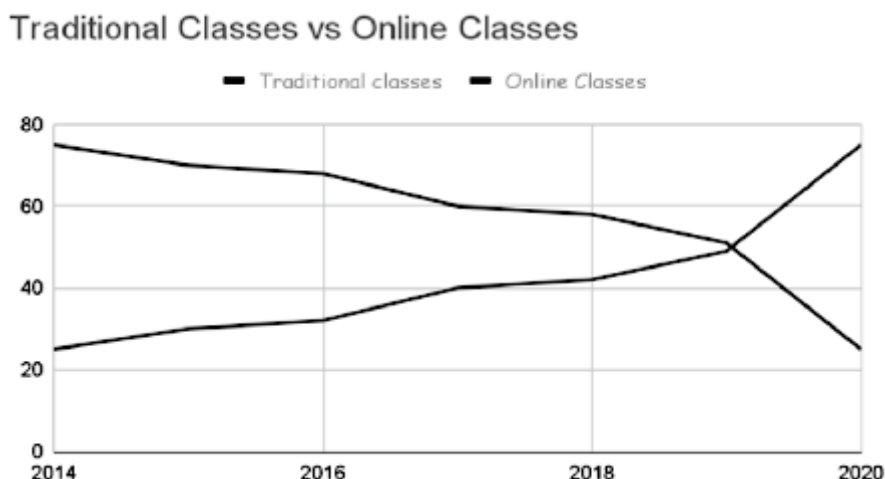


Figure 1: Traditional classes vs Online Classes

### Emerging of an edtech Market

The pandemic exhausted the daily routines of people all around the world. Now education among all the sectors most affected as pedagogy went digital. All schools ,Colleges,Universities and other platforms of education are becoming based on digital platforms and digital communication. We can say that “the coronavirus pandemic is reshaping education”, “real change takes place in deep crisis”, “you will not stop the momentum (in the digital transformation of education) that will build from the crisis”. As well as there are some quotes such as “expansion of the emerging edtech market” and “entry of new suppliers”.

Edtech is a new term that is growing and we can describe it as the new industry that combines education and technological advances that allow educational institutions to serve a larger and more diverse audience and to enable teachers, students and others to foster relationships in an interactive fashion. Even if digitized communication and networking in education had started already in the mid-1980s, the shaping of the global edtech market was still in an emerging state of growth when the COVID-19 pandemic struck. It is a system of 5 M's i.e. Machines ,Materials , Men , Media and Methods are worked together for the fulfilment of specific educational objectives. Many famous edtech platforms are Byju's, Vedantu, UNACADEMY, Brainly, Learn Next etc.Figure 2 shows the numbers of registered users in these different apps,according to 2020.

#### 1. Byju's

Byju's is India's first edtech unicorn launched in 2015 with a motto of making learning fun for students. It has learning programmes for students in classes IV-XII along with courses to help students prepare for competitive exams like JEE, NEET, CAT, IAS, GRE, and GMAT.

#### 2. Vedantu

Vedantu is another popular e-learning platform. Vedantu means Veda + Tantu i.e. Knowledge +Network.A platform where any student can tap into a teacher directly and learning can happen in a personalized way, anytime-anywhere. There are more than 500+ teachers,who are teaching more than1 millions of hours to 40000+ students.

#### 3. UNACADEMY

It is an e-learning platform that aims to build an online knowledge repository for multilingual education with a purpose of being the world's largest educational repository by empowering great educators and making it accessible to everyone.Their vision is to partner with the brightest minds and have courses on every possible topic in multiple languages so the whole world can benefit from these courses.

#### 4. Brainly

Brainly is the world's largest online learning platform, uniting students, parents, and teachers around the world. It helps students in solving their homework problems and test preparation.Students connect to their peers to

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help strengthen their skills, from math to science, history and beyond. The platform essentially acts as the online equivalent of a real-life study group and can help kids solve their academic queries.

### 5. Learn Next

Now a days , students are looking for smart and experiential learning for next big exam, Learn Next App by Next Education is a one stop solution. It has solutions backed up with 400 hours of video lessons, 2D & 3D animation to make learning experiential and fun, topic wise questions with solutions, sample papers, questions from All India Test Series and detailed performance report.

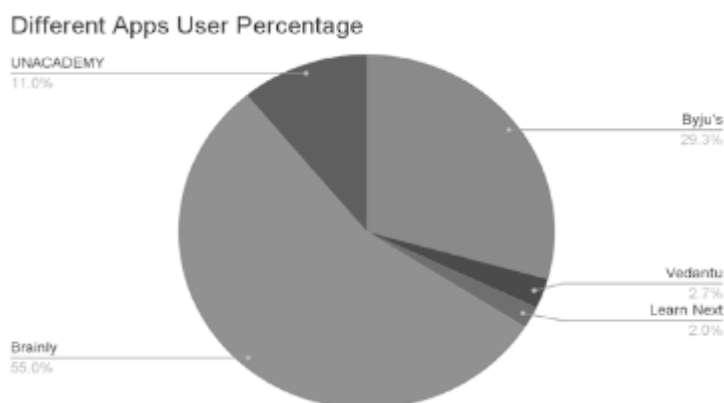


Figure 2: Number of users according to 2020

### Online education in Higher Education

Due to Covid Situation most of the higher education institutions are closed . Every institute is imparting education to the young learners in online mode. To make this one step higher Indian government has announced full online courses which can be imparted by selected institutions. Here the institutes will be having full authority to design their courses , credit system .

However ,there are some issues with many organisations. Students in private schools and colleges are opting for advanced gadgets for digital learning, rural schools are facing technical challenges. The rural students are only aware about chatting software and social media software like whatsapp , facebook etc. .In this crucial time ,we are migrating towards online learning but not everyone is able to make the most of this technology. Important issue with e-learning method , self-paced and self-learning, the attention length of the student may not be enough for him/her to learn a concept. However, the future of E-learning in India seems to be vibrant as the number of Internet users is growing in the country, at quite a reasonable rate and more, and more reputed persons are showing their interest in the e-learning business.

### Assignments & Assessments

if there are no assignments and assessment, a majority of students will not attend online classes. So assignments and assessment of students is a necessary part of E-learning. Google classrooms , Microsoft Teams , Zoom, Webex etc. apps provide excellent methods to provide both. Students can submit assignments directly in these apps. Quiz provides teachers to take online tests in the form of MCQ, short and long answers. If the questions are MCQ , they can be automatically assessed.

### Proctored examinations

How can our education system prepare children for exams? The answer to this question is to take proctored examinations in a strict manner. As we all know, due to this pandemic Board 10th and 12th exams are cancelled, it is just because we are not ready to conduct these exams in online mode and conducting these exams in offline mode was very risky to all. But in future , students and organisations will be ready to conduct proctored examinations using apps like google meet, MS Team, Zoom, webex and some specialised AI software which can detect eye movement and can record surrounding sounds. There will be strict rules to conduct these exams so that students will not be able to cheat in the examination. Higher education has already opted for this platform for conducting the exam in 2019 as well as in 2020. In 2021, Higher education is well prepared to conduct exams in the best way .

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### **Long term effects of digitalization on education even after Pandemic**

Even after the pandemic is over, digitalised education will be an important pillar in education. The National Bureau of Economic Research found that lower-income students are 55% more likely to delay graduation due to COVID-19 than their more affluent peers. On top of that, the bureau found that COVID-19 nearly doubled the gap between low- and high-income students in expected grade point average. Online education will minimize fees by cutting funds like hostel, building, electricity etc. charges. Following points prove this.

- 1) Amity is the first institute in India to launch 24 fully online courses of 2 and 3 years like BBA, BCA, MCA, MBA, B.Com etc. Other universities and institutes are following this trend so that any student can get education anytime anywhere. Many students who earlier completed their education in private or in correspondence mode will have a chance to get full fledged education in their remote cities.
- 2) Many universities have authorised online education as a necessary part. Earlier only 20 % of the syllabus can be completed in online mode. Now many universities are thinking about increasing this percentage according to their needs. In session 2020-21, complete syllabus is done in online mode in most colleges.
- 3) MOOCs( Massive Open Online courses ) are in great demand. Here learners get course content, assignments, assessment and recognized certification at a very nominal cost. Prominent companies like Coursera and Edx are offering value added and industry needed skill courses in collaboration from top institutes like IITs. Edx is offering other universities to design their online courses using their platform.
- 4) The Government of India is offering many courses with certifications for students as well as for teachers like SAKSHAT, NMEICT, NPTEL, OSCAR, E-grid, SWAYAM, Spoken tutorial etc. These courses are for a short duration and learners mostly can learn at their own pace and flexible timings. These courses are government recognised and cover many professional courses.
- 5) Many industries like Microsoft, Wipro, MIT are also launching online courses for the skills they actually need in their companies. This is a win-win situation for both students and companies. Companies are teaching practical skills to the students and providing employment to them and companies will have skilled professionals trained by them.
- 6) India's NEP 2020 (New Education Policy) emphasised on the benefit of multiple entry exit points so that students can have certification if they attend an online course even for one year.
- 7) For ensuring quality, MOOCs courses can be designed and awarded by any educational institute but award of degrees will be regulated by UGC so that online education maintains its authenticity as offline education. There will be no online degrees for hands-on experience courses like medical, law etc.
- 8) The Government of India also proposes National Digital Educational Architecture (NDEAR) "for administration, documentation, tracking, reporting, automation and delivery of educational courses, training programs, or learning and development programs", which will lead to digitalization of education.
- 9) The use of AI (especially Hologram technology) will help gain knowledge from educators all over the world in one's own knowledge. Hologram Technology translates the language in real time to native languages.

### **Hindrances in Digitalization of education in India**

In spite of all the efforts of the Government and education institutes, many educators still feel that online education can not be as beneficial for learners as actual education in educational institutes. Following points are in this favor

- 1) It is challenging to develop content which not only covers the curriculum but also engage the students[4]
- 2) Lack of resources as many learners from the lower income group can not afford smartphones and a good speed connectivity.
- 3) In offline education there are zero distractions and motivation from the teachers and peer group make students work hard. But learning alone on mobile when there are so many distractions like social media, games, chatting etc. make it hard for students to concentrate on education.
- 4) Also we Indians still have not accepted online education wholeheartedly. If some student is even learning from his mobile, everyone still believes that he is wasting time. There is a need to change the perspective of the students, parents and even the hiring companies.

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- 5) Assessment is very difficult in online examinations. In spite of proctored examination or examination through video conferencing, there is no fool proof method to cheating free examination. This cheating alone outweighs all the advantages of online education. If students know that their paper is in online mode, they don't even study for the examination.

### Conclusion

NEP envisions a 50% gross enrollment ratio of our students in Higher education by 2035 as opposed to the current 26%. NEP 2020 emphasizes that this can be done by both traditional teaching as well as online education. There is no substitute for traditional education for many fields like medical, law, civil engineering etc. and many students are very comfortable in offline education. But for those learners with limited finance or time limits can enroll in online education and can compete like never before. Also in some cases like computer engineering, business, finance etc, online education far outweighs offline education. In coming years, online education in India will be a necessity and many top institutes will join the bandwagon of online education to make our learners independent and self-sufficient.

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