

## Digital Education: A Need of the Hour

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### Introduction

*“The Illiterate Of The 21 St Century Will Not Be Those Who Cannot Read And Write, But Those Who Cannot Learn, Unlearn And Relearn”.* –Alvin Toffler

While the education sector has grown tremendously, it has yet to harness potential of digital technologies. Though traditional schools and colleges do an outstanding job of educating the future pillars of the nation, they have not been much capable of extending their reach beyond the institution walls. The smart technologies can equip the educational institutions to unleash their full potential of imparting best knowledge, both in and out of educational institutes. Digital technologies can customize and personalize the journey of education for a learner, taking into account their personal preferences, social context and knowledge history.

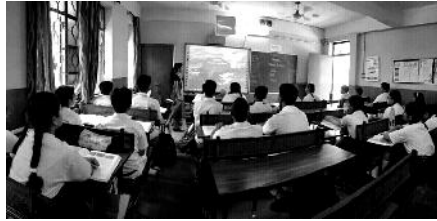
### Objectives

- Are the schools, colleges, universities and coaching centres embracing digital teaching and learning in a big way during and even after COVID-19?
- How the institutes imparting education becoming smart by adopting knowledge?
- What are the roadblocks for the adoption of digital teaching in the institutes?
- Which aspects of digital teaching will gain prominence-
- Digital teaching or digitalization of the educating institutes?
- What opportunities and prospects can be seen for the education sectors that embrace such a transformation for competitive edge?
- What is the role of technology in shaping the digital teaching-learning environment?
- What are the skills required for the educators working in digital training and educating institutes?

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### **Digital Transformation - Digital Education**



Advancement in technology lays a profound effect on the way one learns and the way one teaches.

The concept of digital education implies the innovative use of digital technologies and digital tools during the process of teaching and learning. Digital learning is often also termed as e- learning or Technology Enhanced Learning ( TEL). Digital learning promotes effective use of the advanced technologies which are becoming very crucial in our lives. People make use of it every day to accomplish their specific tasks which in turn makes them look and feel smarter. Digitalization is becoming part of various sectors to make the job easier and enjoyable. Now two decades in, everyone is increasingly realizing the promise and power of the 21st century learning environment. Digitalization of the learning experience is a bane for both the learner as well as the educator. Both teachers and students are able to improve their skills in order to develop a more engaging and effective education system. Teaching and learning becomes a very smoother experience with the involvement of animations, gamifications and use of audio – visual effects. The current generation is well – versed with I- pads, laptops and smart phones , thus, digital learning guarantees more participation of the students on the same time it provides convenience to the teachers and professors also to prepare the teaching plans aided by digital tools and technologies.

### **Emerging Trends And Scope Of Digital Education In India**



Today India holds position as one of the world's top destinations for education. With some of the best universities and colleges, India is renowned for its high standards as well as excellence. After US, India has become the second largest market for digital education. All over the country there are more than 1.4 million schools , over 39,931 colleges , around 993 universities and over 227 million students enrolled in different - different fields, and more than 36, 000 higher education institutes with around 37.4 million students enrollment .

It is even more interesting to notice that how technology has advanced rapidly to transform the pattern of consuming educational content by the students in India. Additionally, the perforation of internet based smart phones is initiating quality learning to the learners across geographies in India. In the present era of innovations and information the meaning of learning and gaining knowledge is changing very fast across the world as a result the education sector of India is not an exception to this new phenomenon.

According to the reports of KPMG and Google Study it is predicted that E-learning in India is likely to be 2 Billion USD industry by the next year i.e. 2021. However, still there is a lot of scope for expansion and development in the field of digital education. Digitalization of teaching and learning process is hoped to increase the collaboration between the teachers and the students.

### **Recent Developments / Investments**

Some of the developments and investments done for promoting the digital education in India are as discussed below:

- In India, schools are investing 20 to 25% of their budget for training the teachers and the administrators. This is a great strategy for teacher retention and career advancement.
- In India, schools are investing more and more for the development of digital platforms and wellness programs within the premises so that they can easily tackle the issues like absenteeism , stress , fatigue ,anxiety related disorders and learning disabilities.
- In the month of January 2020, an undisclosed amount has been raised by Harappa Education from James Murdoch –led Lupa Systems in a funding round.
- In the month of February 2020, Unacademy has raised US\$ 110 MILLION Series E round from General Atlantic and Facebook.
- In the month of August 2019, Maharashtra International Education Board has signed a collaboration agreement with Google for education in India.
- In the month of October 2019, IIT Madras has signed agreement with ExxonMobil Research and Engineering Company for research on energy and biofuels.
- In the month of July 2019, Qatar sovereign fund invested US\$ 150 million in BYJUs.
- As per the data of March 2019, initiative has been taken by the Government Of India to encourage the colleges for offering online courses in the rural areas in order to ensure education for all.

- In the month of August 2019, a course has been launched by Vision Digital , with the motive of bringing digital education to 1 lakh students in the upcoming years. This course is hoped to equip the youth with analytical and digital skills.
- Acquisition deals worth US\$ 49 million and 18 mergers have been witnessed by the Indian Education Sector in the year 2017.
- Of all the startups in India, 3500 startups are catering the needs of the education space. Funding close to US\$ 700 million has been received by these startups in the year 2018.
- The Ministry Of Human Resource Development, Government of India has also planned to raise around Rs. 1 lakh crore (US\$ 15.52 BILLION), from the private firms and high net worth individuals to finance for the improvement of education infrastructure of India.
- Under SANKALP i.e. 'Skills Acquisition and Knowledge Awareness For Livelihood Promotion' Project, India has signed a loan agreement with World Bank for enhancing the institutional mechanisms for skills development and improvement.
- Singapore is going to open its first skill development centre in the state of Assam, to provide vocational training to the youth of the region.

### **COVID-19: Education Systems Big Shift from Classrooms towards Digital Platforms**

The biggest change that the education system globally has gone through in the present year 2020 is the massive shift from traditional classroom teaching - learning system to digital classrooms or e- learning. The factor responsible for this is the outbreak of COVID - 19 pandemic.

- **What is COVID - 19?**

World health organization (WHO) was informed of the cases of pneumonia of unknown cause in Wuhan city, China on 31<sup>st</sup> December 2019. The Chinese authorities on 7<sup>th</sup> January 2020 identified the cause as a novel Corona virus and then and it was temporarily named "2019 – n cov".

Later on 11 March 2020, The Director General of WHO, Dr. Tedras Adhanon Ghebreyesus announced the outbreak as a pandemic, on experiencing the rapid increase in the number of cases outside China. By mid March 2020 the WHO European Region became the epicenter of the epidemic and reported over 40% of globally confirmed cases. In order to stop the spread and beat COVID- 19, the Prime Minister of Our Country (India), Shri Narendra Modi announced "Janta Curfew" on 22 March 2020 and LOCKDOWN of 21 days from 25 March to 14 April then from 15 April to 3 May for 18 days then from 4 May to 17 May for 14 days and then from 18 May to 31 May for 14 days.

- **Global Impact of Coronavirus**

The global impact of the outbreak of corona virus is very immense as all over the universe the educational institutes – from Harvard to IITs are closed . COVID -19 has simply thrown the economy and education all over the world in a uncertain loop. Some of the major problems are like:

- Educational institutions are shut down so the students are ultimately stranded at home, with extremely limited contact with the friends and colleagues and no physical activity.
- All the known and recognized boards such as ICSE, CBSE, IB, A LEVELS, have either postponed or cancelled the examinations.
- Top colleges like MIT, Harvard, Princeton etc. have been closed.
- Campuses have been closed by the institutions like IITs and IIMs and have moved towards online classes.
- Standardized tests like GMAT, ACT, UGC NET, SATs, GRE, etc. remain suspended.

- **Digital Learning during Lockdown**



Digital platforms have been harnessed judiciously during the lockdown to ensure the continuous flow of learning for the millions of school going students in India. The crisis is always paired with opportunities and this is the right time to appreciate the full potential of technology for imparting knowledge. This task has not been very easy as many of the parents cannot afford high speed net connectivity, laptops and smart phones still everyone has shown remarkable efforts during this crisis situation to make the flow of learning to the maximum possible extent.

The idea of online classes was very important so that the academic years can be started instead of wasting time and waiting for the educational institutes to reopen. At present the conditions are completely unpredictable, so there was no benefit in wasting the precious time due to the delay in reopening of all the educational institutions. In online teaching method parents seem to have assumed the role of educators i.e. the teachers and are quickly becoming savvy with the resources produced for the home - scholars so that the disruption can be minimized to their wards education.

There is no doubt or wonder that at this time both the children as well as the parents are feeling drained both emotionally and psychologically. But online learning is proving very beneficial in maintaining the daily routine of the students. Student's life is framed in a set routine comprising:

- School
- Homework
- Coaching or tuition classes
- Co-curricular activities , and
- More studies with a mix of entertainment thrown in.

The above routine was being disrupted completely with the lockdown but organizing online classes has helped a lot to maintain back the same schedule of the children and in turn also helping them to lower down the feeling of anxiety , fear, and stress. Online teaching keeps the children engaged full day with reduced burden while staying indoors of which they are not habitual.

- **Benefits of Digital Learning during Lockdown**
  - A flexible learning space, promoting students voice and choice.
  - Budget friendly as the student needs not to pay the cost of maintaining the whole institution during lockdown.
  - Convenient to fit into the day.
  - Available 24 by 7.
  - Flexibility to personalize as per the individuals need.
  - Easier to concentrate and no commuting required.
  - Learners get plenty of time to do their own research.
  - Teachers can instruct and address the specific issues of each student online.
  - Social distancing which is the need of the present situation can be well exercised.
- **Demerits/ Challenges of Digital Teaching Learning during Lockdown**
  - It may create a sense of isolation.
  - It requires one to be a active learner.
  - Online learning provides more freedom even more than one can handle.
  - The students in rural areas face internet connectivity problems.
  - Lack of discipline.
  - Lack of social interaction.
  - Lack of personal communication.
  - Chances of creating inequality.
  - Low personality development and enhancement.
  - Lack of proper time management skills might fall far behind.

- Workload increased for the students.
  - Little practical experience in online learning.
  - Unaffordable for some parents due to need of high speed internet connection which is costly.
  - Mismanagement if parents are not educated enough.
- **Government Initiatives**
    - **The DIKSHA**, platform has been introduced by the Government as one of the immediate measures to ensure continuity of learning in private as well as Government Schools and Universities.
    - **SWAYAM** ( study webs of active learning for young aspiring minds), is an online learning platform run by Ministry of Human Resource Development, it has attracted more than 50,000 subscribers after the announcement of lockdown period in India i.e. from March 2020.

The ministry is trying its best through online education to ensure that students can continue their learning with minimum disruptions even during the lockdown period.

In the words of Union HRD Minister Shri Ramesh Pokhriyal Nishank

**“The response to this has been overwhelming”.**

### **Review of Literature**

**Jadhav, Vaibhav. (2011)** produced a paper titled “ICT and Teacher Education,” in which he emphasized the world is changing fast; new frontiers of knowledge are being added with passage of time. There have been technological advancements and developments in the field of energy, environment and communication. Since last few years’ technology has become an important part of education. To enjoy benefits of technology [Volume 6 | Issue 1 | Jan. – March 2019] e ISSN 2348 –1269, Print ISSN 2349-5138 <http://ijrar.com/> **Cosmos Impact Factor 4.236 Research Paper** IJRAR- International Journal of Research and Analytical Reviews 161x the time has come when the teacher educators will have to learn how to be co-learner with the trainees. The school curriculum has to gear up to face the challenges of ICT, and accordingly pre-service and in- service programmes should be aimed to train prospective teachers to use ICT competently and making teaching learning process a joy.

**Kamble, Avishkar. D. (2013)** in the paper titled “Digital classroom: The Future of the Current Generation,” examined in length the significance of digitization in education and stated that a modern classroom is basically an Information & Communication Technology based classroom. This aims at converting traditional classrooms into interactive sessions by combining best hardware with syllabus-compliant, multimedia content. In many colleges, computers are used by teachers and

students for better communication and learning. The paper discusses how a digital classroom is basically an ICT-based classroom which helps to convert traditional classrooms into interactive sessions.

**Nigam, Anushree. Srivastava, Jyoti. Lakshmi, Tanushree. Vaish, Anurika. (2015)** in their combined paper titled “Digitizing Education: A Cost Benefit Analysis,” argued that Use of technology has become a common practice in today’s world. As the world is moving rapidly towards digital media, the role of IT in education has become increasingly important. Development of digitization can be outstanding if it can be utilized in education, research and extension activities which can be cost effective. The paper attempted to understand whether traditional approach of education can be replaced by digital mode of education or not? The paper focused upon three things Firstly; it exhibits the transition of education from a traditional educational approach to digitized approach. Secondly, it analyses the associated cost and benefits of digitized education in today’s society. Finally, it attempts to propose few mechanism for incorporating digitized education and its impact in higher education scenario towards building India as a Technoscape for future advancement.

**Jha, Nivedita., Shenoy, Veena. (2016)** in their research paper titled “Digitization of Indian education Process: A Hope or Hype,” stated that over a period of time many changes have occurred in different sectors of economy including the education system. Education sector unlike any other sector has seen many stages in its evolution. From Guru-Shishya system of conducting the class in open garden under the trees to closed class room lectures, presentation form of teaching with the aid of LCD touch-screen projector to online notes and now instant Whatsapp messages is the buzzword among the students. Whatsapp has gained the status of being authentic formal means of communication among the students and the academicians. The paper analyzed the introduction on electronic modes of imparting education and to analyze whether in the given state of Indian education it inspires hope or is just another hype created in the sector.

### **Research Methodology**

- The main focus of qualitative research methods is to provide a clear, simple and complete picture of the situation with the motive of understanding of behavior and inter- relations.
- The study is primarily based upon the secondary data.
- The research for making this paper has been conducted through literature review.
- No empirical work has been conducted.
- A large resource of written materials has been used for preparing this research paper, which include- books, articles, magazines, academic journals, as well as many websites.



## Conclusion

In the last couple of years education system in India has gone through a series of rapid expansions which has helped in transforming the country into a knowledge heaven. The study clarifies the role of digital education its outstanding features and modifications required to develop the digital education across the geographies in India. The study has highlighted the benefits, challenges and investments in the field of digitalization of education sector in India. Technology and tools guide a learner in a more better and interesting way to develop effective self- directed learning skills.

The state of education in India is dismal especially in the rural areas. The sector at present is struggling with many challenges like outdated teaching techniques, shortage of teachers, inadequate student – teacher ratio and insufficient teaching resources. However, India is on the path of progress and the continuous initiatives being taken by the government and all educators will surely enhance the productivity of teaching learning process.

The spread of a health crisis i.e. corona virus pandemic in the present year 2020 has made the picture of success of digitalization of teaching - learning pattern much more clear. Digital learning in the upcoming years is going to be the key face of future education in India.

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