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E-LEARNING IN INDIA: SOME DYNAMIC INITIATIVES IN HIGHER EDUCATION

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ABSTRACT

The Indian higher education system is the world's third-largest in terms of students, next to China and the United States. E-learning has brought drastic change in the educational sector especially in higher education. Integration of Information and Communication technology along with e-learning initiatives has enhanced the teaching-learning process in higher education and also helped the government to improve the higher education structure in the country. Higher education institutions are implementing various E-learning initiatives as key component to facilitate the knowledge acquisition and to withstand the fast growing competition and digital technology. The basic objective of this paper is to understand the concept of e-learning and examine e-learning initiatives in higher education institutions while making passing reference to Covid-19 effects.

KEYWORDS: *E-Learning, Implementing*

INTRODUCTION

Recent technological and other advancements have turned the World into a Global Village where awareness and knowledge has become the key components. In such scenario, education has become a powerful tool of the society to raise awareness of the culture, environment, social diversity and also to increase the levels of knowledge to face the competitiveness among the people besides helping them to become Global Citizens. Recently, E-learning has emerged as strong and effective means to promote education worldwide. E-learning is super spreader of

education and knowledge in the world and India is no exception. With the help of E-learning tools and technology, India can attain the goal of reaching the remote citizens of in rural areas, motivating the learners for higher education as well as empowered women through the education.¹

The emergence of internet in terms of its speed and availability has broadened up the usage of e-learning in Indian higher education Institutions. E-learning is becoming a part of the internet which experiences the highest growth rate and improves the teaching and learning process. E-learning environment has been widely implemented in many schools, colleges and universities. It is not only being used for education purposes alone, but for training purposes in many corporate and government departments. However, with the on-going demand for the e-learning technology, there is one major question asked by most professionals and scholars are on the effectiveness and success of various e-learning initiatives. Therefore, it is relevant that e-learning readiness will be conducted prior to the introduction of the e-learning tools and technology in organization and institutions. It is important to apply the e-learning readiness assessment.

Integration of Information and Communication Technologies (ICTs) has completely changed the dynamics of education sector; and has undeniable impact on learning outcomes. E-learning has emerged as a vital tool to improve the teaching- learning outcome as well as expand the learning opportunities for learners. E-Learning initiatives are a procedure of using digital technology to assist learning and teaching. Enhancement in how the Internet works, has allowed websites to deliver an effective and immersive learning experience on a computer, laptop or mobile device, which is helpful for encouraging learning.²

Emergence of E-Learning in Covid Times

Covid-19, a deadly pandemic struck the world in late 2019. With the outbreak of the virus operating conditions all over the world have changed rapidly and the effects of the pandemic are visible, unstoppable and uncontrollable. Many sectors of importance have been badly affected leaving the economies and systems in shatters and education sector like many other important sectors got the severe whip. Face to face learning became a thing of the past as billions of students are forced to learn while sitting home through e-learning to avoid spread of the infection. E-learning has emerged as only viable alternative in the present times to impart education to keep moving the ball of societal obligations.

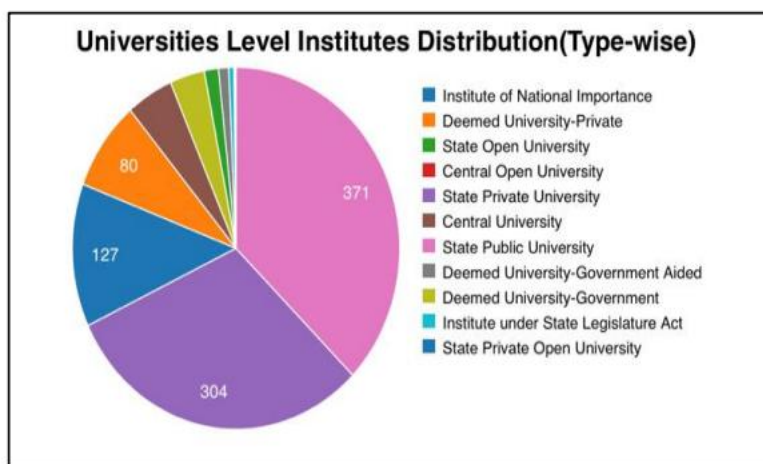
Thus, technologies and the circumstances have changed the traditional way of teaching-learning rather has replaced it with technology. To-day, all the higher education institutions and universities and even the schools are imparting online education.

Definition of e-learning

There are many definitions given to e-learning (which stands for electronic learning) to enhance and support learning in higher education. E-learning is the integration of digital technology and learning, and with the use of network tools and technologies to facilitate learning anytime, anywhere. Thus, E-learning is covered under a larger term of technology-based learning through websites, learning portals, video conferencing, YouTube, mobile apps, and thousand types of free available websites for blended learning tools. Currently, E-Learning is enhancing student's knowledge, even the academic staff and professional and industry people skills through the internet.³

However, in present time, e-learning has become an important tool for enhancing the delivery, interaction, and facilitation of both teaching and learning process. The Commission on Technology and Adult Learning (2001) defined “e-learning as instructional content or learning experiences delivered or enabled by electronic technology.” With the increasing number of students in higher education institutions every year, it has become necessary to introduce e-learning initiatives and some alternative method of imparting education to all the students. Online programmes and courses through various e-learning platforms are a solution to this. However for e-learning implementation to succeed there is a need to assess the readiness of stakeholders (organizations, teachers and learners) to adopt this learning style. E-learning offers the multiple advantages of economy besides the enhancement in teaching learning outcomes. The desire for a well-educated technical workforce has driven many nations to redesign their education systems. Desire for a technical workforce is mentioned in Alvin Toffler’s declaration (in Rosenberg, 2001), that “the illiterate of the 21st century will not be those, who cannot read and write but those who cannot learn, unlearn, and relearn.” This signifies that learning institutions/universities will have to progressively change and adapt in their environments if they are not to lag behind.

Higher Education Architecture in India



SOURCE: International Journal of Scientific and Research Publication

The Indian higher education system is the world's third-largest in terms of students, next to China and the United States. According to All India Survey of Higher Education report (2019) the Indian higher education comprises of 53,620 institutions with 37 million students. There are a total of 41,901 colleges, 10,726 standalone institutions and 993 universities, out of which 385 Universities are private and 394 Universities, are located in rural areas. In which there are 548 General, 142 Technical, 63 Agriculture & Allied, 9 Language, 23 Law, 58 Medical, 13 Sanskrit, 13 Sanskrit, and 58 Medical Universities and rest 106 Universities belong to other subjects. A total of 26 million students study in colleges followed by 7 million students studying in universities and 2 million students studying in the standalone institutions. According to this report, Gross Enrolment Ratio (GER) in higher education is 26.3. GER for the male and female population is 26.3% and 26.4% respectively

Regulatory Framework Of Higher Education In India

- Department of Higher Education, Ministry of Human Resource Development
- Association of Indian Universities
- Central Advisory Board of Education
- State Councils for Higher Education



- University Grants Commission
- AICTE, MCI, PCI, DEC, BCI, NCTE
- ICAR, ICMR, ICSSR, CSIR
- State Regulators

- National Board of Accreditation
- National Assessment and Accreditation Council

IMPORTANCE OF E-LEARNING IN HIGHER EDUCATION

The Four Rationales for Introducing E-Learning in Education (Source: Cross and Adam, 2007)	
Social	Perceived role that technology now plays in society and the need for familiarizing students with technology.
Vocational	Preparing students for jobs that require skills in technology.
Catalytic	Utility of technology to improve performance and effectiveness in teaching, management and many other social activities.
Pedagogical	To utilize technology in enhancing learning, flexibility and efficiency in curriculum delivery.

SOURCE: Cross and Adams, 2007

In higher education Institutions, the demand to create a virtual learning environment (VLE) is increasing day by day, in which all aspects of a course are handled through a consistent user interface throughout the institution. Many online courses and programmes are already initiated in our country, which are delivered online to students. In present time, several Higher Education Institution and university provide. Of a total of around 1.2 million students worldwide, 32% are from the U.S while 15% are from India. In India, especially in rural areas many colleges and universities are facing the problem of non-availability of qualified teachers, but with the help of E-learning tools and technology, they can overcome the problem of non-availability of adequately qualified teachers in their institutions. While there is no substitute for effective and organized classroom teaching, e-learning's is the best option. School dropouts and physically disabled student can be taught through e-learning study materials. Computerized Assessment of students' performance becomes easier to the teacher/professor, for the courses where the number of students is very high. However e-learning has its own limitations. People, who are oppose to

the online learning and teaching saying that it is irrelevant and does not impart the education effectively. On the other hand, some people oppose traditional school learning saying that self-learning with the help mobiles, computers and laptop etc., is always better than classroom learning as it does not encourage learners for self-learning.

Stakeholders	Benefits
Students	<ul style="list-style-type: none"> ✓ Enlarge access to education, ✓ Global knowledge sharing ✓ Feasibility of content delivery, ✓ Combination of ICT and multimedia ✓ Blending of work and education, ✓ Learner –centric approach ✓ Improvise-quality of education.
Employer's	<ul style="list-style-type: none"> ✓ Increase training quality, ✓ Cost effective strategy , ✓ Elevation of employee skills ✓ Enlarged employee efficiency ✓ Developing of a new learning culture, ✓ Sharing of costs and of training time with the employees, ✓ Increased portability of training.
Governments	<ul style="list-style-type: none"> ✓ Increase the capacity and cost effectiveness of education and training systems, ✓ To reach target groups with limited access to conventional education and training, ✓ To support and enhance the quality and relevance of existing educational structures, ✓ To ensure the connection of educational institutions and curricula to the emerging networks and information resources, ✓ To promote innovation and opportunities for lifelong learning.

The technological improvisation and globalization are the factors that enhance the growth of e-learning. Education plays a key role in enhancing the social and economic development of the nations all over the world. Higher education sector implements E-learning as vital component to facilitate the knowledge acquisition and to withstand the fast growing competition and technology. Along with ICT, development of multimedia has brought changes in the traditional way of teaching. E-Learning has a significant role in transforming knowledge, skill and performance improvement of the higher education. The implementation of e-learning tools have brought several drastic changes in the delivery of knowledge in higher education. Integration of Information and Communication technology along with e-learning has enriched the learning process in higher education. The role of e-learning has become imperative component of the higher education institution and universities. Education through e-learning enables access to the best tutors and the knowledge accessible worldwide (UNESCO, 2002).

RECENT E-LEARNING INITIATIVES IN INDIA

The learner with the use of digital tools and technology can access tremendous level of information

And it also provides world class resources of information from which the learners can benefit at their own phase of learning.⁴ Followings are some e-learning initiatives:-

EDUSAT:-

This is a Geo-synchronous satellite developed on I-2K bus GSAT-3, also known as *EDUSAT is a dedicated communication satellite, launched by the Indian Space Research Organisation but exclusively serve in education sector. It was first “Educational Satellite”, meant for distant class room education from school level to higher education and also provides the country with satellite based two way communications to class room for delivering educational materials.*

Net varsity:-

Net varsity is the India’s first online educational enterprise also came with the private initiative. It is started by the National Institute of Information Technology (NIIT Limited) in 1996.

NTFITSD:-

The National Task Force on Information Technology and Software Development (NTFITSD) formed by the then Prime Minister of India in 1998, with the purpose to investigate the IT-potential of the nation. “The Task Force report presents the master plan that India has in place as a long term policy for capacity building of institutions, human resource development in IT related areas, and use of Information and Communication Technology in education sector.”⁵

VCI:-

The Indira Gandhi National Open University (IGNOU) on the recommendations of the Task Force started Virtual Campus Initiatives (VCI) in 1999. IT started in Bachelor of Information Technology and Advanced Diploma in Information Technology course.

PDF:-

In 2001, the School of Social Sciences at the Indira Gandhi National Open University (IGNOU) started a Post Graduate Certificate in Participatory Management of Displacement, Resettlement and Rehabilitation in 2001, with the help of the World Bank. It is a fully online programme that included both synchronous and asynchronous learning opportunities. It is a first programme, in which Participation in Discussion Forum (PDF) is used as a peer evaluation mechanism.

OCPFS:-

Online certificate programmes on Food Safety (OCPFS). OCPFS is an online initiatives of IGNOU, in collaboration with the Ministry of Health and Family Welfare, Government of India. It is Web-based Training Programme for the min career diplomat of the Government of India and also a web-enhanced training package on the Windows version of the UNESCOs popular database management package CDS/ISIS.

NPTEL:-

NPTEL (National Programme on Technology Enhanced Learning) was designed in 1999. NPTEL is funded by MHRD (Ministry of Human Resource and Development). Under the project, 7 Indian Institutes of Technology (IIT Bombay, Delhi, Guwahati, Kanpur, Kharagpur, Madras and Roorkee) and IISc (Indian Institute of Science) Bangalore have created 112 video courses and 116 web courses. All these courses are based on undergraduate engineering and science topics, and created to meet most of the requirements of an engineering undergraduate program (at any Indian university). These all programmes and courses are available to students, working professionals and colleges (both government and private) at virtually no cost or very low cost.

Some of the digital initiatives of UGC & MHRD for higher education are given below

- **e-gyankosh** (<http://egyankosh.ac.in/>) is a national digital Repository that preserves all the learning sources. All the digital study materials in e-gyankosh are protected by copyright, with all rights reserved by Indira Gandhi National Open University (IGNOU). It is the world's biggest repository of educational resources in higher education.
- **Gyandhara** (<http://ignouonline.ac.in/Gyandhara/>) is an internet audio counselling service offered by IGNOU, where learners can listen live discussions by teachers and experts on the topic of the day. Students can ask questions and interact with them through telephone, e-mail and also through chat mode.
- **SWAYAM** (Study Webs of Active-Learning for Young Aspiring Minds) is a programme initiated by the Government of India aimed at offering everyone, easy access to high-quality digital aids and resources. It provides Massive Open Online courses (MOOCs) with 140 universities approve credit transfer feature. Courses based on specific subjects, managed by SWAYAM are available free of cost to all the learners.
- **PG Pathshala** (<https://epgp.inflibnet.ac.in/>) is for postgraduate students. Postgraduate students can easily access this platform to get study materials, online courses and e-books..
- **Shodhganga** (<https://shodhganga.inflibnet.ac.in/>) is a platform for research students to deposit their PHD theses and make it available to the entire scholarly community in open access. It has the ability to capture, index, store, disseminate and preserve electronically thesis and dissertations submitted by the research scholar of any university in India.
- **VIDWAN** (<https://vidwan.inflibnet.ac.in/>) is a premier database and national research network which has profiles of scientists/researchers and other faculty members working at leading academic institutions and other Research & Developments organisation in India.
- **National Educational Alliance for Technology (NEAT)** (<https://neat.aicte-india.org/>) is an initiative for skilling of learners in latest technologies through a Public- Private partnership model between the Government (through its implementing agency AICTE) and the Education Technology companies of India. In education sector, it brings the best technological products on a single platform for the comfort of learners.

DISCUSSION

The current generations are synonymously called as “Netizens” and “digitals” as they have been born and brought up in the wraps of technology. They discover e-learning helpful and friendly as it encourage them in pursuing their learning in their convenient space and time. In this technological age Indian government is also investing more on digital technology and tools across all the government service such as passport service, railway ticket booking, and online registration for water supply, e-bills, etc. The adaptive nature of e-learning technology imparts various intellectual capabilities to learners to utilize the best of knowledge without any time and spaces restriction.

SUMMARY OF STATES/UTS

	Activities	Andaman & Nicobar Islands	Andhra Pradesh	Arunachal Pradesh	Assam	Bihar	Chhattisgarh	Dadra & Nagar Haveli + Daman & Diu	Delhi	Goa	Gujarat	Haryana	Himachal Pradesh	Jammu & Kashmir	Jharkhand	Karnataka	Kerala	Ladakh
1	Digital Classroom	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2	ICT Labs	Y	Y	Y			Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y
3	Online Admission		Y			Y	Y		Y		Y		Y			Y	Y	
4	E-content repository	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
5	E-Books	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
6	Offline books Text Books	Y	Y	Y	Y		Y	Y	Y		Y	Y	Y	Y	Y		Y	
7	Interactive Resources Online		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8	Educational TV			Y	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y	Y	
9	Educational Radio channel			Y	Y						Y		Y	Y		Y	Y	
10	WebTV Channels	Y	Y			Y	Y	Y			Y	Y	Y		Y	Y	Y	
11	E-Learning Portal		Y			Y	Y	Y		Y		Y	Y	Y	Y	Y	Y	Y
12	Computer Based Learning	Y	Y	Y			Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y
13	Mobile Application		Y		Y	Y	Y				Y		Y	Y	Y	Y		Y
14	Civil Society Partnership					Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	
15	Digital Initiatives for Competitive Exams						Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	
16	Other Initiatives	Y	Y			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

	Activities	Lakshadweep	Madhya Pradesh	Maharashtra	Manipur	Mizoram	Meghalaya	Nagaland	Odisha	Puduchery	Punjab	Rajasthan	Sikkim	Tamil Nadu	Telangana	Tripura	Uttar Pradesh	Uttarakhand	West Bengal
1	Digital Classroom			Y			Y		Y	Y	Y		Y	Y		Y	Y	Y	
2	ICT Labs	Y	Y	Y		Y	Y	Y		Y	Y	Y		Y	Y		Y		Y
3	Online Admission			Y			Y	Y	Y				Y	Y	Y				
4	E-content repository	Y	Y	Y	Y		Y		Y			Y	Y	Y	Y	Y	Y	Y	Y
5	E-Books	Y	Y	Y	Y		Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
6	Offline books Text Books	Y		Y			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y
7	Interactive Resources Online	Y	Y	Y	Y		Y		Y		Y	Y		Y	Y		Y	Y	Y
8	Educational TV			Y	Y	Y	Y	Y	Y		Y	Y		Y	Y	Y	Y	Y	
9	Educational Radio channel	Y	Y	Y	Y		Y	Y		Y	Y	Y	Y				Y	Y	
10	WebTV Channels		Y	Y			Y	Y	Y		Y	Y	Y	Y	Y		Y	Y	
11	E-Learning Portal	Y		Y	Y		Y	Y	Y		Y	Y	Y	Y	Y		Y	Y	Y
12	Computer Based Learning	Y		Y	Y		Y		Y	Y		Y		Y	Y		Y	Y	Y
13	Mobile Application		Y	Y			Y		Y		Y	Y	Y	Y	Y	Y	Y	Y	Y
14	Civil Society Partnership						Y		Y	Y		Y	Y	Y	Y		Y	Y	
15	Digital Initiatives for Competitive Exams			Y		Y	Y				Y			Y			Y		
16	Other Initiatives			Y	Y		Y	Y	Y	Y	Y	Y			Y			Y	Y

SOURCE- India Report on Digital Education 2020

The above table elaborate upon the various steps, both online and offline, taken by States/UTs to facilitate remote learning for students. Online teaching- learning process could not completely replace traditional education and school system as they provide many other qualities other than academic knowledge, which play an important role in learner's overall personality development and In online classes, the poor network connectivity especially in rural areas of the country creates a huge problem, even in the middle of the classes; the connection gets disconnected due to network problems, system error, software updates, etc.⁶ E-learning can also create obstacles such as chances of piracy and plagiarism, ease of copy-paste, inappropriate selection skills, lack of interaction etc.

The education sector in India is no longer limited to just school classrooms. The e-learning and teaching market in India is estimated to be around \$3 billion. The central government's e-learning initiatives to make digital learning available to all learners in every corner of the country are also aiding the sector. Currently, online training in India focuses equally on school and college-based courses as well as professional courses.⁷ However, education institution can improve and develop their skills and standards by imparting education through online platform with the help of digital technology and tools. Many online learning platforms and e-learning initiatives provide various programmes on the same subjects with different levels of certifications, methodology and assessment parameters. So, the quality of these programmes and courses may not be the same across different online learning platforms. Therefore, establishment of quality assurance mechanisms and quality benchmark for e- learning programmes must be developed and offered by HEIs in India keeping in view of rapid growth of the online learning platforms.⁸

CONCLUSION

The growth of e-learning in India shows that, circumstantially, it has become acceptable substitute to the traditional class room learning in higher education especially under the present situations. E-Learning not only plays a major role in Indian higher education institutions but also acts as an emerging trend of education for future India. The majority of the learners believe that digital technology and flexibility are the key factors behind the development of e-learning in higher education. It has also discovered a new definition and dimension in teaching learning process and all government e-learning initiatives plays a very important role to make it available to all the students. For making e-learning more effective, it is essential to improve e-learning tools and technology and make few changes in the area of online assessment, investment in technology and faculty training and in policies and governance towards e-learning. All the educational institutions should focus on the technology and services that suit them and also security of data reliability and the personal information of teachers and learners should be secured. It can be concluded that the access to internet connectivity plays a crucial factor for growth of online education. In developing countries, e-learning raises the level of literacy and more so with the help of e-learning initiatives many opportunities can be captured and speedy development of educational sector is possible. It is also expected that if developing countries work as a joint venture on the issue of e-learning, it will be beneficial for the development of knowledge reservoirs throughout the world.

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