A Contemporary Study on the Flourishing E-learning Scenarios in India

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Abstract: In the modern era, almost every learner would have come across the word E-learning and every part of education and training system enthusiastically explores and implements E-learning in one form or another. E-learning is a broad concept. It refers to a wide range of techniques and methods. It is often employed as a unifying term to describe the fields of online learning, web-based teaching and technology delivered instruction. With the amazing development of Internet, the field of education has tried to exploit web as a communication channel to connect distant learners with their learning resources. E-learning creates awareness in modern education and it offers a greater degree of freedom in Teaching Learning Process (TLP). E-learning activities are important for the development of any country on this globalised globe when in modern era everybody is thinking about growth and Educational development. In this research paper the up-to-date developments through E-learning in India is observed with the objective to comprehend the rapid popularity, the concept of e-learning is gaining as well as its possibility to be the focal wheel of development of education sector of India in near future.

Keywords: Educational development, e-learning, ICT, IIT, NIT, UGC, IGNOU, UNESCO

I. INTRODUCTION

Long ago the great Indian philosopher and saint Swami Vivekananda said "If the poor cannot come to education, education must reach them, at the plough, in the bakery factory, elsewhere." Today's any kind of ICT supported learning is exactly doing the same job. The journey of education in India has been dotted with innumerable milestones-most recently, e-learning. Soon after independence in 1947, the Govt. of India had the challenge of bringing uniformity in educational system and providing education to large segments of the population. Various schemes were undertaken to improve the literacy rate in the vast country. These measures have resulted in increase in literacy rate from 65.38% in 2001 to 74.04% in 2011. . Digital technology in India has been evolving over the last few years, changing the way of learning concepts in school. Once characterised by the traditional classroom model, education today has metamorphosed into learning that is instant, online, self-driven and on the go. In India, e-learning scenario is still growing and at an experimental stage. The traditional mindsets are changing, with the corporate and business sector leading the way by embracing technology based learning networks.

Many institutions have started augmenting teacher-led programmes with content-rich e-learning modules. Government initiatives are not far behind either. The projection for further development of distance e-Learning in India is positive. Several efforts are currently progressing towards providing quality distance learning to more people in urban and rural areas, through the utilization of more effective web resources and practices. The major hindrance to the acceptance of e-learning can be attributed to the Indian mindset that is more inclined to traditional classroom teaching (Hansen, 2008). The visibility of e-learning is currently limited to IT and educational CDs, but with PC penetration and overall online accessibility increasing in the country, the future of e-learning looks promising, provided the organization of content and delivery is well-structured. Technology has been proved to be a huge revolution in the field of education, be it the newly joined school kids or the great scholars and researchers, technology has tamed them all. Smart boards, digital podiums, smart class ICT and visualisers have pushed the chalk and duster culture to the walls. Children tend to have their interests inclined more towards technology than to the limited exposure they get through the traditional education methods.

Indian government is a strong supporter of e-learning and the Department of Electronics and Information Technology has been actively developing tools and technologies to promote it by supporting e-learning focussed research and development (R&D) projects at various academic educational institutes throughout India. These include content development, R&D technology initiatives, human resource development projects and faculty training initiatives to improve literacy through distance education. Indian youth are also technology-driven today and find e-learning to be especially appealing. The Government of India has allocated around Rs 17,000 crore (US$ 2.55 billion) in 2017-18 year towards skilling, employment generation, and providing livelihood to millions of youth, in order to boost the Skill India Mission. For young working professionals with a desire to escalate their careers faster, e-learning is convenient as they can pursue their degrees in their own space and time. Global companies in sectors like KPO's, BPO's, publishing houses (Element K, McGraw-Hill, Lion Bridge, Skill soft, IBM, and Oracle) along with domestic retail education have established centres in India. Companies like NIIT and Tata Interactive Systems are considered pioneers of the industry. There is an interference of technology in every aspect of our daily life. Technology has invaded the educational sector as well for the betterment of future. In this paper the recent initiatives of Indian policy makers for transforming the traditional educational arena in India with the use of Information and Communication Technology (ICT) are discussed. The basic objective of this study is to highlight those areas that are going to act as major factors in making e-learning a huge success in India.

Important E-Learning initiatives in India so far

The e-learning, though reached India late of course, but it is being fast accepted in a big way. The India perhaps has watched the success of west in adopting e-learning and is trying hard to implement it. Over the past few years, the Ministry of Human Resource Development has been trying to achieve the target of making education accessible to every corner of the country. Still there are many parts of the country, which are in darkness about e-learning (Malik, 2009). Due to the growing Indian economy, India has a chance to become heart of e-learning programs. E-learning does not seem to replace the conventional classrooms with black boards but it seems to coexist with the already existing system. This system rather promises to reach too far off rural areas in India where education is still looming in darkness. This objective can be achieved by providing PCs at low cost with broadband connection. The chances of e-learning to strengthen the educational system in India are very high. Furthermore the Government has also come forward undertaking the programs of upgrading the technical quality of the fresh graduates inciting them to go into research and teaching professions. The e-learning is fast growing and seems to take control of the world because of its educational advantages (Saha, 2010). The scope of e-learning is much wider in India with many e-learning companies stepping forward in providing the service. Though nothing can actually outrun the popularity of traditional classroom teaching, e-learning only gives more value to the process, independent of the distance factor.

The recent market research report from Technavio (Feb, 2016) predicts the online education market in India to grow at a tremendous CAGR (The Compound annual growth rate) of approximately 19% during the forecast period of 2016 to 2020. With the introduction of many conducive government policies, the market for online education in India has a positive outlook until the end of the forecast period. In a bid to extensively incorporate digital literacy in India, the government is making policies related to technology adoption and online education delivery infrastructure. The Digital India Initiative is one of the key initiatives with a long-term vision to provide quality and technologically aided education. This initiative aims to bridge the digital divide by providing high quality and affordable broadband services across the country. Moreover, this will facilitate the use and integration of devices like smartphones and tablets, across the country. Furthermore, the National Optical Fiber Network launched by the government in 2011 aims at building and improving Internet infrastructure throughout the nation. Also, the government is encouraging big companies like Qualcomm and Reliance to develop new technologies in the education sector to change the face of the Indian education system.

The International Association for K-12 Online Learning (iNACOL) defines Online Learning as education where content and instruction are delivered primarily over the Internet (Heather & Horn, 2012). In spite of its technological growth, only 0.2% of schools in India have computers and even these schools use computers just to provide 'computer education' for their children (Bhattacharya & Sharma, 2007). In the survey conducted by the North American Council for Online Learning (NACOL) in 2006, India was nowhere in the picture of online education in K – 12 education (Powell, 2006). However, higher education was already into e-learning and many Universities like Jadavpur University, BITS Pilani Virtual University, Online education with Hughes, Visvesvaraya Technological University, Amrita Vishwa Vidyapeetham, DOECC Society etc. had their e-learning portals as early as 2006. Madras University in the state of Tamilnadu has become country's first virtual university, as the completion of the first phase of the Virtual University Programme that is jointly promoted by the university of Madras, Mumbai and Kolkata, inaugurated by the Ex-President of India and a great scientist Dr. A.P.J Abdul Kalam in 2005. Then seven IITs (Indian Institute of Technology) have teamed with IISc (Indian Institute of Science), Bengaluru to set up India's first home-grown virtual technology university under NPTEL (National Programme on Technology Enhances Learning). Later on in 2011, in the second survey conducted by NACOL, India was yet to use online learning for K-12 students and it was found that only private tutoring institutes were using online learning as a supplemental education for K – 12 students. In contrast, India's competitor China had created its first online school as early as 1996, which was increased to 200 online schools with a total student enrolment of 600,000. It was estimated that around 26% of total student population were into online learning in China (Barbour, et al., 2006). This indifference to online learning in India is because many find it is extravagant when needs like education, healthcare, drinking water and electricity is not met. Indians are also sceptical about technology as it might replace teachers (Bhattacharya & Sharma, 2007). It might curtail the employment opportunity in the country. In answer to this question, Bhattacharya quotes Bill Gates and affirms that online learning is just a tool and should or will never replace a teacher (Bhattacharya & Sharma, 2007).

In February 2009, India launched a National Mission on Education through Information and Communication Technology (NMEICT) which has been envisaged as a Centrally Sponsored Scheme to leverage the potential of ICT, in teaching and learning process for the benefit of all the learners in Higher Education Institutions in any time any where mode. This was expected to be a major intervention in enhancing the Gross Enrolment Ratio (GER) in Higher Education by 5 percentage points during the XI Five Year Plan period. The three cardinal principles of Education Policy viz., access, equity and quality could be served well by providing connectivity to all colleges and universities, providing low cost and affordable access-cum-computing devices to students and teachers and providing high quality e-content free of cost to all learners in the country. It seeks to bridge the digital divide, i.e. the gap in the skills to use computing devices for the purpose of teaching and learning among urban and rural teachers/learners in Higher Education domain and empower those, who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy. It plans to focus on appropriate pedagogy for e-learning, providing facility of performing experiments through virtual laboratories, on-line testing and certification, on-line availability of teachers to guide and mentor learners, utilization of available Education Satellite (EduSAT) and Direct to Home platforms, training and empowerment of teachers to effectively use the new method of teaching learning etc.

The E-Gyankosh, a National Digital Repository of learning resources, project was started by Indira Gandhi National Open University (IGNOU), in 2006. The repository was developed using D-Space open source software, which ideates to store, index, preserve, distribute and share the digital learning resources of open and distance learning (ODL) institutions of the country. A support to a large aggregation and integration of learning resources in different formats such as self-instructional study materials, audio-video programmes, and archives of radio and television-based live interactive sessions is supported by it.

The Library and Documentation Division of Indira Gandhi National Open University (IGNOU) has started making efforts to take higher education to the doorsteps of the hitherto un-reached through its diverse modes of Information and Document Delivery Services. NODLINET (National Open and Distance Learners' Library and Information Network) is one such recent initiative taken up by IGNOU to provide a podium for libraries and information centres of the open and distance learning system

of the country that will provide access to all electronic and digital resources from the leading publishers and vendors across the globe to its stockholders from anywhere at any time using sophisticated technologies to enhance the quality of education at par with the conventional education system (Arora, 2007).

In an another initiative by government of India, a project undertaken by The National Council of Educational Research and Training (NCERT) in the form of online textbooks showed that e-learning can reach to maximum. The NCERT publishes school textbooks and it has initiated a step towards making school textbooks freely available on the internet for students and teachers through its website. This portal provides easy navigation to textbook chapters by title/subject of the book for a particular class. The textbooks available there are written in English, Hindi and a few in Urdu (Sarma; Majumder, 2008).

In India the initiatives to make the country an information literate society have already been made in the year 2005 with the setting of a National Knowledge Commission (NKC) with a mandate to transform India of 21st century in to a knowledge society. The government has clearly recognized public libraries playing a pivotal role in dissemination of knowledge. An E-Learning Portal for Awareness Raising on Information Literacy was launched by the Indian Society for the Advancement of Library and Information Science (SALIS), in collaboration with UNESCO in 2006. This project has its genesis in recommendations of a UNESCO supported Workshop on Information Literacy Competency Development for Information Professionals and Special Educators organized in November 2006 by SALIS in Chennai, India, and subsequent Information Literacy sensitization workshops held in Delhi and Nagpur in December 2006. The e-learning portal will cover a number of self-learning modules, such as:

- Information communication technologies (ICT).
- Information literacy.
- Information literacy models and standards.
- Lifelong learning and development of life skills.

Massive Open Online Courses initiated by The National Institute of Open Schooling (NIOS) formerly known as National Open School (NOS) was established in November,1989 as an autonomous organisation in pursuance of National Policy on Education 1986 by the Ministry of Human Resource Development(MHRD), Government of India. NIOS is providing a number of Vocational, Life Enrichment and community oriented courses besides General and Academic Courses at Secondary and Senior Secondary level. It also offers Elementary level Courses through its Open Basic Education Programmes (OBE).Government of India through a gazette notification vested NIOS with the authority to examine and certify learners registered with it upto pre degree level courses. The National Institute of Open Schooling (NIOS) initiated Massive Open Online Courses (MOOC) specifically for our learners to be offered at Secondary, Sr. Secondary (+2) levels and Vocational Courses. These online courses will not only be beneficial for the students pursuing their studies through Open and Distance Learning (ODL) system at school level, but also will be accessible to millions of learners interested in academic courses and development of their skills in various vocations.

Another open education initiative is Ekalavya, launched by Indian Institute of Technology, Bombay in 2004. In this project, content developed in various Indian languages is distributed over the Internet. The Ekalavya project has developed an Open Source Educational Resources Animation Repository (OSCAR) that provides web-based interactive animations for teaching. The main goal of Project OSCAR is to build a large repository of web-based, interactive animations and simulations, referred to as learning objects (LOs), for teaching and learning concepts in science and technology. These could be useful not only for a classroom environment but also for enabling independent learning and distance education. The current goal is to develop Los for topics in various subjects at the undergraduate and postgraduate levels. An auxiliary goal of Project OSCAR is to provide training opportunities to students in developing Los, managing the back-end of the repository and conducting educational research.

In 2002, deliberations of various committees were held that led to the setting up of the UGC-INFONET towards the end of 2004. The UGC also joined this crusade of introducing e-learning. Wholly funded by UGC, UGC-INFONET provides electronic access to scholarly literature available over the Internet in all areas of learning to the university sector in India. Based on the recommendation of an Expert Committee, the MHRD has formed e-ShodhSindhu merging three consortia initiatives, namely UGC-INFONET Digital Library Consortium, NLIST and INDEST-AICTE Consortium. The e-ShodhSindhu will continue to provide current as well as archival access to more than 15,000 core and peer-reviewed journals and a number of bibliographic, citation 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. The main objective of the e-ShodhSindu: Consortia for Higher Education E-Resources is to provide access to qualitative electronic resources including full-text, bibliographic and factual databases to academic institutions at a lower rates of subscription. The major aims and objectives of the e-Shodh Sindhu are as follows:

- Setting-up e-ShodhSindu: Consortia for Higher Education E-Resources by augmenting and strengthening activities and services offered by three MHRD-funded Consortia;

- Develop a formidable collection of e-journals, e-journal archives and e-books on perpetual access basis;

- Monitor and promote usage of e-resources in member universities, colleges and technical institutions in India through awareness and training programmes;

- Provide access to subscription-based scholarly information (e-books and e-journals) to all educational institutions;

- Provide access to scholarly content available in open access through subject portals and subject gateways;

- Bridge digital divide and move towards an information-rich society;

- Provide access to selected e-resources to additional institutions including open universities and MHRD-funded institutions that are not covered under existing consortia;

- Take-up additional activities and services that require collaborative platform and are not being performed by existing Consortia; and
- Moving towards developing a National Electronic Library with electronic journals and electronic books as its major building blocks.

Another project to provide web based training is the National Programme on Technology Enhanced Learning (NPTEL), which is being funded by the Ministry of Human Resource Development (MHRD). This was first conceived in 1999, to pave the way for introducing multimedia and web technology to enhance learning of basic science and engineering concepts, was launched in September 2006. The 6 (six) major engineering disciplines have been covered in this project so far at the undergraduate (B.E./B.Tech) level. The educational goals set by the MHRD are:

- To make video lectures in a format appropriate for broadcasting that would provide quality content through the Technology channel named the Eklavya channel by the previous Hon'ble Minister for Human Resource Development in recognition of the first student of distance education named in the great Indian epic Mahabharata thousands of years ago.
- To create web-based (e-learning) material and make it available in the form of a Portal/DVD that would be tailored to meet the needs of engineering students across the country.
- To create a website for NPTEL activity.
- To make e-learning material available in the web for the video lectures to supplement class room teaching.
- To advise target institutions with regard to the software/hardware requirements for benefiting from the national project.

The NPTEL has developed curriculum based on video courses (110 new courses, 109 existing courses encapsulated in digital video format and 129 e-courses web-based). This has been undertaken by 7 (seven) Indian Institute of Technology(IITs), Indian Institute of Science(IISc), Bangalore as Partner Institutions (PI) and other selected premier institutions as Associate Partner Institutions (API) through a collaborative effort. The broad aim of the project NPTEL is to facilitate the competitiveness of Indian industry in the global markets through improving the quality and reach of engineering education. The operational objective of NPTEL is to make high quality learning material available to students of engineering institutions across the country by exploiting the advances in information and communication technology. The target group for this project consists of students and faculty of institutions offering undergraduate engineering programmes in India. It was the first initiative in which all IITs and IIMs shared a common vision and proposed to work together to improve the quality of science, engineering and management education all across the country by offering courses through Virtual Centre for Technology Enhanced Learning (VCTEL). This proposal was submitted to MHRD in 1999 and revised several times (EGPAICTE-NPTEL). The aim of this virtual centre is to collaborate between Institutions in developing, sharing, and disseminating mutually beneficial and interesting applications of technology in education and learning VCTEL has four major initiatives. These include:

- Digital libraries
- Redesign of basic science courses using new forms of technology
- Collaborative doctoral education using technology enhanced learning environments
- Delivering Distance Education to Working

E-Learning is one of the thrust area identified by Ministry of Electronics and Information Technology (MeitY) in India for imparting education using educational tools and communication media. The Ministry has been financially supporting Research & Development (R&D) projects in the area of E-Learning at various academic educational institutes, R&D Labs etc. MeitY, in the past, has been providing grant-in-aid for R&D projects in the area of content development, R&D / Technology development projects, Human Resource Development projects & Faculty Training to improve literacy through distance education using Information and Communication Technology (ICT) Tools (Computers, Multimedia and the Web). Some other ongoing projects under MeitY are as follows-

Design and Development of Context Aware Mobile assisted Augmented Reality Framework for Learning Environment, started in 2012 under C-DAC, Bangalore, with the following objectives-

- An intuitively simple, user-friendly software framework to create augmented reality based e-learning applications for students.
- Documentation including user's manual, help and support for the framework via online forums and sample projects to kick start.
- To conduct 1 workshop and 2 training programs.

Development of Personalised and Performance based E-Learning tool for existing E-resources, started in 2013 under NIT Durgapur jointly with Bannari Amman Institute of Technology, Erode District, Tamil Nadu and IIT Kanpur with the following objectives-

- To estimate the online learner's proficiency based on their navigation & search history
- To sort and prioritize search results in the learning contents
- To track the searching process in a content particular for learners
- To improve search engine performance
- To increase user (online learners) satisfaction

Setting up ICT E-Learning Centres in 204 schools in Srikakulam district of Andhra Pradesh, started in 2014 under ERNET India with the following objectives-

- To set up e-Learning ICT centres in 204 high schools in rural and tribal area of district Srikakulam to integrate ICT for learning and teaching to improve learning outcomes of rural and tribal children.

ICT based Framework to enhance the teaching and learning experience in large Classroom, started in 2014 under IIT Guwahati with the following objectives-

- Development of framework and interface for interaction between the teacher and the students both in the class and outside the class
- Development of framework and interface to deliver the lecture on the diverse portable computing devices carried by the students
- Development of framework and interface for examination management (conduct and evaluate short exams/ quizzes/ home assignments)

Rollout of OLabs, started in 2015 under CDAC, Mumbai jointly with Amrita Vishwa Vidyapeetham, Kollam, Kerala with the following objectives-

- To create the infrastructural and support framework for making OLabs (online labs for schools) accessible and usable by students and teachers across India. This includes level 1 and 2 support, toll free numbers, etc.
- To train approximately 30000 teachers across India in effective use of OLabs resources to enhance the teaching learning experience

II. E-Learning is a positive intervention in Indian education system

Education globally is one of the significant sectors to witness revolutionary changes in recent times. Digital Education is the panacea for this anathema of education all over the globe. It is in particular a blessing for developing countries which chronically suffer from ailments of access and affordability. With wise coverage over various means of communication it becomes a natural choice to learn even for those in the hinterlands.Primarily Digital Education has 3 components:

- The content
- The technology platforms
- The delivery infrastructure

The Indian IT sector organically or otherwise holds enough capacity and character to provide excellent digital content and supporting technological platforms. With the advent of several corporate giants like TATA, BSNL & RELIANCE in digital education and the subsequent money flow this sector is gearing up for some quality movement. But innovation is one thing that has no end and therefore would always invite different stakeholders like Government, Content experts, Technology firms, Users, Teaching community etc. to come together to collaborate and invent cutting edge technologies and methods to facilitate this sector's meaningful growth. Government and private players need to come together to bridge connectivity and accessibility issues.

Besides its cost and access advantages, digital education comes as a win-win for all. Education institutions see the rapid rise in enrolments and added revenue. Students view this as a flexible option allowing them to study as per their time and pace. Teachers too find it convenient to prepare their learning plans well aided by technology. Teaching becomes a smoother experience with a perfect mesh of personalized packages having a blend of animations, gamification and elaborate audio-visual effects. Digital education is fun learning for all cadres and particularly effective for child learning as the innovative audio-video feature boosts the cognitive elements in a child's brain. The info-tainment combination involved in digital learning makes it more practical, applicable and relatable to our life and surroundings in an interesting manner E-learning brings unique advantages, the most prominent being the ability for online instructors to provide personalised attention to all students. This is especially critical for those students who cannot afford private face-to-face tutoring sessions or who live in rural areas where such help is not available. In a conventional set up, this is only possible when a highly skilled tutor offers one-to-one tutorials to a student. However, considering that most of the institutions have a classroom-based setup, such individualised attention becomes very difficult.

Another important advantage is that people living in smaller towns and cities can get access to the best possible learning resources from across the world, at a very affordable price. This helps create a level-playing field. The developing wave of adaptive learning will also help students with various levels of intellectual capabilities to glean the best from the learning process at their own pace, without feeling left out. Online tutoring will definitely pose a threat to conventional methods of teaching— while online learning can never look at completely replacing schools as schools offer much more than just academic opportunities within their campuses. Here are some data to help tapping the Indian potential in e-learning-

- Internet users in India will be doubled by 2018 raising the number of users to 550 million with rural users to rise by almost 40% of the total as per data placed   by Internet & Mobile Association of India. This figure hints at the potential to digitally educate the masses is very rich in India. A robust Internet ecosystem, with a multitude of local and global players, will help online learning make further inroads.

- Yet, there is a long way to tread before realizing the actual potential of Digital Education in India. Some of the

prominent hurdles are Digital Literacy & Infrastructure. The majority of the Indian population still does not have the required internet bandwidth and many are illiterate in digital terminologies and devices.

- Government of India initiatives like NOFN (National Optical Fiber Network) to provide a minimum of 100 Mbps broadband connectivity to each one of all 250,000 Gram panchayats in the country covering nearly 625,000 villages to transform to Digital India. The last mile connectivity with a total of 700,000 wifi hotspots to cover all 625,000 villages of India, by adding 2 to 5 wifi hotspots per gram panchayat and minimum one wifi hotspot per village, have been created by connecting high-speed 4G base tower stations of commercial telecomm operators to BharatNet. As per Morgan Stanley research, of India's 33% internet penetration in November 2017 only 15% and 2% of total internet users use online shopping and retail shopping respectively, estimated to go up to 78% penetration, 62% online shoppers and 15% online retail shopper respectively by 2027(Economic Times). This increasing internet penetration in India will surely help online learning make further inroads in the country.

- Innovation should also be poured into making digital education more interactive and robust. Limitation in teaching numerical analytics and empirical subjects like Mathematics can be overcome by appropriate classification of content and tutors trained and specialized in responding to dynamic and spontaneous queries of students. In developing countries like India, digital education comes with a premonition of "Digital Divide" and therefore government should make efforts to include all stakeholders in this initiative to make it "inclusive & sustainable" for all.

- Almost 85% of the Indian population does not speak or write English. Creation of a Hindi (other supported local languages) internet to tap the sub urban or rural market potential can prove to be a key element to penetrate deeper. Also, affordable internet access, data enabled devices and appropriate internet plans can play a significant role in tapping the market.

- Here, a special emphasis must be laid on Security features like examinee verification, plagiarism etc. to uphold the independence and integrity of the education system. Active campaigning, informative sessions, technical workshops and a multi-pronged approach by all stakeholders is needed to bring about Digital awareness and change trends like Distance Education to Digital Education.

III. CONCLUSION

To have a positive impact on learning and solve the big educational problems in India, technology is not the only solution that we are looking at. There is need to have a bigger vision of enabling technology to help students learn better and teachers teach better. Therefore, solutions to hurdles like affordability, accessibility, mode of delivery and content are indispensable. Technology has made it possible to implement digital classrooms. Through technology, efficiencies and transparency can be brought into schools by helping stakeholders such as students, teachers, parents and administrators streamline routine tasks, improve assessments and learner/teacher data collection. However, the greatest advantage of using technology in classrooms remains the uniformity of the educational process which ensures that the same quality of education is delivered in all domains and regions, and also improves the efficiency of the teachers' manifolds in underdeveloped and developing countries. E-Learning raises the level of education, literacy, and the overall economic development. This is especially true for countries where technical education is expensive, opportunities are limited, and economic disparities exist. Thanks to satellite technology, the costs have come down so significantly that every student—whether a grade school student or medical student doing a rotation in a remote area— can take full advantage of bandwidth provided by broadband satellite systems, opening up a world of opportunities. E-learning has a promising future in India; it could be on its way to becoming countries next sunrise industry. However, it is highly unlikely that it will replace traditional learning; rather both models will work in tandem. The trio of content, delivery and access will act as a change-agent in shaping online education in this country.

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