

E-Learning Education a Potential Learning Solution for Rural India

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Abstract: Mobile phones, internet, tablets, iPads, their applications, social media etc are part of our lives from the start till the end of the day. Technology is touching every aspect of society and changing it drastically. But there is one very important part of the society that has also been touched by new innovations and discoveries with its golden hands and that is education with the concept of E-learning. Like all other areas, in this case also urban areas are influenced to a greater extent than rural areas. So much more could have been done to bring the revolution in learning process in rural areas of India. In this research paper development through E-learning and its barriers with future solution in rural India is observed. In this research paper, we observed that E-learning is an effective tool for development of educational sector in India. E-learning is learning, utilizing electronic technologies to access educational curriculum outside of a traditional classroom. In most cases, it refers to a course, program or degree delivered completely online. The basic objective of this research paper is to understand concept of e-learning with its challenges and solution to examine the type of e-learning. The research paper focused on e-learning in rural India.

Keywords: Education, educational development, e-learning, formal e-learning, challenges for e-learning, solutions for rural e-learning.

1. Introduction

India is a country of youths in current situation. More than half of the country's population is under 25 years of age and every year 10 million people join the workforce. India already has one of the largest education systems in the world. The country has millions of schools, colleges, universities together. Right to Education is the primary right of every citizen of India, whether a child resides in a high profile society or in a far away not so developed secluded village, according to the Article 21 and Article 45 of Indian Constitution the basic elementary education must be provided to all the children up to the age of fourteen years. Even after 73 years of independence some States in India are still struggling to achieve Universal enrolment, retention and quality education. There are more than one million rural schools among 6,38,365 villages in India. Schools in rural areas are promoted to raise the level of education and literacy in rural India. The main aim of running these types of schools in India is to increase the rate of literacy in rural areas. More than 26 percent of India's population is illiterate and cannot read or write. Schools in rural areas are inadequate and often equivalent to being non-existent. Thus, government's initiative to set up schools in rural areas came into picture. India's education sector is being revolutionised by rapid increases in Internet penetration and the availability of low-cost mobile devices. Technology has the potential to multiply reach. E-learning is a combination of learning services and technology to provide high values. Internet plays a vital role in e-learning. E-learning is attaining significance in the world of internet. Due to the advantages of in internet, e-learning reached at anytime and anywhere. E-learning clearly has a role to play in resolving the problem. The sector is expected to grow rapidly at a CAGR of 14.6 percent between 2019 and 2026. To put things in perspective the market in India is predicted to grow more than twice as fast as the global average of 7.9 per cent.

2. Concept Of E- Learning:

E-learning is defined "as acquisition of knowledge and skill using electronic technologies such as computer and Internet based courseware and local and wide area networks." The term was introduced in 1995 when it was called "Internet based Training", then "Web-based Training" (to clarify that delivery could be on the Inter- or Intra-net), then "Online Learning" and finally e-learning, adopting the in vogue use of "e" during the .com boom.

Types of e- learning:

1] **Synchronous training:** means "at the same time," involves interaction of participants with an instructor via the Web in real time.

a. **Virtual classroom:** Virtual classroom duplicates the features of a real classroom online. Participants interact with each other and instructors online, instant messaging, chat, audio and video conferencing etc.

2] **Asynchronous training:** which means "not at the same time," allows the participant to complete the WBT at his own pace, without live interaction with the instructor.

a. **Embedded learning:** Embedded learning is information that is accessible on a self-help basis, 24/7. It can be delivered to the place of work, or to mobile learners. Electronic performance support system (EPSS) is a type of embedded learning. The advantage is that embedded learning offers learners the information they need whenever they need it.

b. Courses: The clear advantage of a self-paced course is convenience. Participants can get the training they need at any time. This can include just-in-time training where a participant gets exactly the training he or she needs to perform a task.

3] Discussion groups: A discussion group is a gathering of conversations that occur over time. They are also called message boards, bulletin boards and discussion forums. Discussion groups can be used to support a group of participants taking the same class or can be used to support participants performing related tasks. A discussion group is a very competent way to supply expert answers to a large group people. A single answer to a common question can help many.

4] Blended learning: Most companies prefer to use a mix of both synchronous and asynchronous e-learning methods according to their requirement. which is also called as mixup of methods.

3. Challenges for E-learning in rural india:

- **Digital Illiteracy and No Infrastructural Support:** A significant proportion of the rural population continues to fall short of the required internet bandwidth and knowledge to recognize devices and digital terminologies. Another major issue involves the absence of supporting infrastructural facilities such as a stable flow of electricity and unavailability of high-speed internet.
- **Access to proper devices and cost of data for rising use of content consumption:** While talking about digital learning, it important to observe the accessibility of accurate devices for each student to avail digital content. In rural areas, only a nominal section of people have the privilege of accessing laptops and computers. Even students with access to desktops and laptops cannot avail the internet and the costs incurred in the procedure. Apart from that, the phone screens available to them are not favourable enough for long learning hours. The data packages and their prices also tend to restrain both teachers and students from going ahead with live classes. Though, subsidizing learning data plans by telecom companies can be an attempt to bridge this existing gap.
- **Inadequate Skills:** The inadequacy of skills among the teachers of the rural areas to operate digital platforms is another key factor affecting the advancement of digital education. As the teachers lack the necessary training to use digital platforms, they are averse to adopt these educational methods.
- **Language Barrier:** Almost 85% of the population living in India does not speak English. The lack of access to standardized content in Hindi and other regional languages causes a slow rate of further online course adoption. Standardized digital content covering every major curriculum from K-12 to higher education level seems far-fetched. Curation of any quality content from open sources will amplify the expenses and will require the Government's synchronized effort. The syllabus also needs to be re-contextualized from a blended learning approach.
- **Gender Inequalities:** The penetration of online learning amongst the female population in the rural parts of India is even more taxing. Just like most domains, the availability of internet and literacy in rural India is primarily available to men.

4. Current state of E-learning in India:

Although the foundation of education is still reading, writing, today's students need broader education. Contemporary classroom, hence, needs to deliver live instruction, video content delivery, student to- student interactions via video conferencing, remote test administration, up-to-date materials, self-learning etc. Digital India campaign is likely to benefit education by bringing many of these and other important elements together. Even as the previous government tried to bridge the digital divide, Modi's government masterstroke offers a lot of positivity for the Indian education market which is estimated to be worth USD 1.96 billion in 2021-22 against USD 247 million in 2014-15(reference .kpmg). With nearly half the population of India below the age of 25 and increasing penetration of Internet and mobile devices in this demography which is expected to reach 250 million soon, rivaling the US, India's potential as a huge market for e-learning is enormous. Indian corporate sector having hold on tech world such as Intel, Qualcomm and Tata are also making moves in this direction. Intel recently launched 'Digital Skills for India' initiative under which it introduced Digital Skills Training Application that is comprised of modules on Digital Literacy, Financial Inclusion, Healthcare and Cleanliness in five Indian languages. Qualcomm has launched Play 'n' Learn program for school children ages 5-8. It is providing 3G tablets under the Qualcomm wireless Reach initiative. Similarly, Samsung recently started on a Smart Learning initiative to provide interactive study materials to students through television. Likewise, Tata, Reliance and BSNL are among the prominent Indian names that are going big on this sector. While Tata is expanding its school education solution, 'Classedg', Reliance has picked up over 38.5 per cent stake in digital education company, Extra marks Education Private Limited, through its subsidiary, Infotel Broadband Services Limited. Government owned enterprise BSNL has tied up with Grey cell 18 Media Private Limited, to launch its online education service 'Topper Education'. Other noteworthy names are byju's, unacademy, udemy etc providing online courses for relative studies in this segment include the likes of Data Wind, Merit nation, and Class teacher. Even some of the e-commerce players have expressed their willingness in this segment. Needless to say, if the e-learning/education market takes root in the country, it will definitely improve the education scenario which desperately needs a shakeup. Even the government is in strong supporter of e-learning and the Department of Electronics and Information Technology (Deity) has been actively developing tools and technologies to promote it, what we need is more devices and an ecosystem. There is a need

for a greater participation from the industry and stakeholders. For this to happen, the tech companies have to take the lead and help enable a strong ecosystem. We also need more applications and services to strengthen the ecosystem. The developers and content providers are going to be encouraged only when there is a plenty of devices, more importantly interest of tech companies. Apparently, there is a huge opportunity yet to be tapped, even as infrastructure and regulation issues might be slowing down the otherwise accelerating education space in India. Digital India (DI) programme is a GoI initiative to electronically integrate the government departments and the people of India. This move aims at ensuring that government services are made available to citizens electronically. It also includes a massive plan to connect rural areas with high-speed internet networks. Digital India has three core components. These include: Digital infrastructure, Digital service delivery and Digital literacy. The project was officially launched on July 01, 2015 and is slated for completion by 2019. The scheme will be monitored and controlled by the Digital India Advisory group which will be chaired by the Ministry of Communications and IT. It will be an inter ministerial initiative where all ministries and departments shall offer their own services to the public Healthcare, Education, Judicial services etc. The initiative is commendable and demands full support and confidence of all stakeholders. However, it has scope for improvements regarding many crucial components like a legal framework, privacy and data protection laws, insecure Indian cyberspace, etc. So these issues will have to be managed simultaneously. But despite its shortcomings Digital India project is worth exploring and implementation and will raise India to newer heights on the international scene. The availability of high-speed internet to every citizen, easy access to government services through CSCs and allocation of private space on public cloud are some the DI features that will revolutionize the lives of rural populations pan India While the government's aggressive National Optical Fibre Network (NOFN) is all set to be spine of the Digital India drive, spreading out of broadband connectivity is going to aid growth of e-learning. There are three components of technology-enabled modern education; Digital Content, Technology platform and delivery infrastructure, or say the Internet. But there is a scarcity of internet infrastructure. Availability of high quality wireless internet speed is still a challenge. Penetration is also an issue. A correct ecosystem can be created when we will be able to empower better quality mobile based Internet. Increasing internet footprint will also help to create the right ecosystem which can be easy achieved through Gi – Fi technology as it provide high speed data transfer, low power consumption, high security, low cost and High level of frequency re-use enabled. It can be used to meet communication needs of multiple customers within a small geographic region can be satisfied thus making it useful to rural India where still there are issues of power supply, private telecom company are reluctant to provide competitive services.(reference 1 Ms. Swati Yadav, 2 Dr. Anshuja Tiwari)

5. Conclusion:

Development of any society depends on its access to information and the same is applicable to rural India too. E learning work online platform and in this direction and help the social community to attain their entitlements. Launch of Digital India Programme is a welcome step in this E-learning direction. It is anticipated that with dedicated leadership, willpower and control and an integrated framework comprising of the government, technology industry and society, E-learning interventions in the rural areas will undoubtedly pave way towards sustainable growth.

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