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## **Digital India: A Unique Step towards E-learning in India**

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### **Abstract**

*The countries education sector is undergoing a revolution with the rapid internet accessibility and availability of low cost mobiles and other electronic gadgets. As technology is playing a major role in reaching multiple populations easily and effectively, many foreign as well as domestic service providers are providing online education in India. As per the recent UK-India business Council report titled Meeting India's educational Challenges through E-Learning-2015, India is the second biggest e-learning market after US. So no doubt that India is bull's eye that every e-learning service provider wants to target. The Central Government is also not in the back foot as far as launching new services in e-learning sector. It recently launched the Digital India Campaign, which not only aims to improve the ways of Indian people live and work but also going to facilitate education through its innovative plans about e-learning. The campaign targets to provide broadband connectivity, wifi services and so on to various schools all over the country. Enhancement of Digital literacy is one of the important aims of this programme.*

*This paper primarily focuses on the history of the progress of technology enabled learning in India with major visions and plans of the Digital India programme and discusses how far it can facilitate e-learning in India. It also deals with the pros and cons of this innovative campaign, e-learning and the prospects ahead.*

***Keywords: Digital India, e-learning, e-governance, mobile connectivity, information and communication technology.***

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**Introduction:** From mid of the twentieth century technology spreads all over the world. It actually spreads rapidly from 1980s. It started to make our world easier to access and communicate. From the 1990 e-Governance initiatives started primarily in India. It basically emphasizes on the citizen centric service. The services of government were basically provided in the government offices. Rapid development of information and communication technology started to provide government services through public using electronic means. Some remarkable impacts of e-Governance are development of telecommunication systems, development of cyber laws, online feedback system, development of community e-centres etc. Communication between government and citizen become closer through this service. The demands of citizen took respect through this service. Gradually it spreads on the state governments and UTs. Now electronic media is our most suited and trustable media of communication and information. Advanced countries are very fast regarding their use of technology. Then Government of India launched National e-Governance Plan (NeGP) in 2006. The

vision of the plan was to "Make all Government services accessible to the common man in his locality, through common service delivery outlets, and ensure efficiency, transparency, and reliability of such services at affordable costs to realise the basic needs of the common man.

"(www. india.gov.in/e-governance). There were 27 mission mode projects and 8 components. Health, Agriculture, Education, other service industry all were included in the project. Two important transformation of the plan were Unique Identification Authority of India in 2009 and Passport Seva Project in 2010. Digital India is more systematized and more advanced programme to enhance technology environment all over the country. It is an umbrella programme which covers many more new departments. In order to transform the entire system of public services through the use of information technology, the Government of India has launched the Digital India programme with the vision to transform India into a digitally empowered society and knowledge economy. The three major pillars of the Programme is building Broadband highways, Universal access to Mobile Connectivity, Public Internet access Programme. These three projects are going to bring a major thrust in the E-learning scenario in India. The Constitution of India has been amended and education has been made a Fundamental Right for children in the age group of six to fourteen. Article 21A has been inserted to give effect to this benign concept. The same cannot be achieved effectively till we adopt the concept of e-learning.

**E-Learning:** Quite simply, e-learning is electronic learning, and typically this means using a computer to deliver part, or all of a course whether it's in a school, part of your mandatory business training or a full distance learning course. Learning can takes place everywhere and we learn from womb to tomb. One of the major advantages of e-learning is mobility of system. E-learning provides learners the opportunities of lifelong learning. The traditional concept of e-learning is that it is associated with gathering information. But now with the development of Open Educational Resources (OER) authentic materials are also available in e-learning environment. In the early days it received a bad press, as many people thought bringing computers into the classroom would remove that human element that some learners need, but as time has progressed technology has developed, and now we embrace smart phones and tablets in the classroom and office, as well as using a wealth of interactive designs that makes distance learning not only engaging for the users, but valuable as a lesson delivery medium. Building partnerships with quality training providers, and combining this with a dedicated experienced technical team and support staff, Virtual College provides the perfect blended learning environment, offering anyone the chance to take their online training to the next level. MOOC (Massive Open Online Courses) is one of the major, authentic and recent initiatives of e-learning in India. E-learning provides scope of gaining knowledge and experience form work experience, from online courses and also from the authentic materials used for specific purposes. Recently e-learning gains authentic platform of learning from its old misconception.

**Major media of e-learning:** The effectiveness and multipurpose facilities of e-learning attract easily both the world of little and adults. It can be used in formal, non-formal and Informal learning situation also. Some major media of e-learning are:

**SMS and MMS:** These two services are old in terms of technology. Through these services we can type the information in various languages of India. So, the scope for learning and communication creates. In MMS we have additional services like exchange pictures, songs etc.

**Google Search:** Now the world is in Google. If we want to search any information is easy to write in Google. We cannot consider our world without Google. And here English is important language

for searching. The GPS or LOCAL services are also available in Google. The all types of system like as education, health are in Google search. It helps to validate and enhance our knowledge. Google need an id but if we forget the id it can search with the key words. More significantly it sometimes provides us the key words for search.

**Face book and what's app:** Now the world of friendship is out of consideration without the social media. We share the little of information, feelings in social media. Face book is very enthusiastic regarding their business in India. We can share important message in the face book. Now what's app is very popular social media. The exchange of picture, message and songs are very easy under this service.

**Skype and Viber:** Primarily telephone reduces the physical distance among the persons. Then mobile phone advances it. Now with these services we can talk with the person simultaneously watching them. IIT and IIM classrooms are now sharing world class knowledge with videoconference.

**Mail- Id:** Mailing is one of the best medium to exchange information. G-mail, yahoo mail, rediffmail are some of the remarkable mailing account providers. We mail our papers, documents, CV to an office through mailing service. One of the best usability of this service is that it is free from record keeping. The natural storage system can store lot of information.

Twitter: Twitter provides us to blog our important words. We can provide our important message to the government with the twitter.

**Virtual Classroom:** Virtual classroom is most suited application of e-learning system. It is an audio-video interaction, text-chat, interactive whiteboard enable classroom. E-classroom is similar classroom with technological empowerment. It makes learning more interesting and attractive. Technology helps to share world class view of the topic. Students more easily become more independent in their life. Digital pedagogy is now concerning concept of e-learning.

We can learn through these media about the e-governance and many other types of services. These are essential at every steps of life. It is now essential to operate every subject of studies. The world of business is inoperative without these services. The booking services like railways, hotels, flight buses etc. are in the progressive hand of internet. Share market trading or business with money marketing system is unthinkable without the internet. It avoids the drowsiness of work with it. So many websites related to pleasure is ready to serve you at your break. Self-learning, e- learning, cooperative learning can be enlarged through these services. The services provided by the educational institutions, medical centres, information centres are basically software based.

### **Advantages of E-Learning**

1. It is cost effective and saves time.
2. Learning 24/7, anywhere and anytime.
3. We can track our progress very easily.
4. E-learning allows each individual to tackle the subject at their own pace, with interactive tasks being set in place to ensure a thorough understanding throughout each module.
5. Above all learning becomes interesting and joyful digitally. Digital activity is more attractive for learners so they feel more interest while doing it.

**Digital India Programme:** The Digital India programme is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy. It was launched by our present prime minister in 2015.

**Vision areas of Digital India:** The Digital India programme is centred on three key vision areas:

**Programme Pillars:**

1. **Broadband highways:** A mission has been set by the programme that 2, 50,000 village Panchayats would be covered under the National Optical Fibre Network (NOFN) by December 2016. Virtual Network Operators would be leveraged for service delivery and communication infrastructure in new urban development's and buildings would be mandated. National Information Infrastructure (NII) would integrate the network and cloud infrastructure in the country to provide high speed connectivity and cloud platform to various government departments up to the panchayat level.
2. **Universal access to Mobile Connectivity:** It will provide mobile coverage to uncovered villages has been initiated. Mobile coverage to remaining uncovered villages would be provided in a phased manner. That means no village without mobile connection.
3. **Public Internet access Programme:** Common Service Centres (CSCs) would be strengthened and its number would be increased from approximately 135,000 operational at present to 250,000 i.e. one CSC in each Gram Panchayat. A total of 150,000 Post Offices are proposed to be converted into multi service centres.
4. **e-Governance, Reforming Government through Technology:** The guiding principles are-Form simplification and field reduction, Online applications and tracking, Online repositories, Integration of services and platforms, All databases and information should be in electronic form and not manual etc.
5. **e-kranti, Electronic Delivery of services:** e-Kranti is an essential pillar of the Digital India initiative. It has 44 Mission Mode Projects under e-Kranti, which are at various stages of implementation mainly Technology for Education – e-Education, Technology for Health – e-Healthcare, Technology for Farmers, Technology for Security, Technology for Justice and Technology for Financial Inclusion
6. **Information for All:** It aims Open Data platform , Government shall pro-actively engage through social media and Online messaging to provide various information without any delay.
7. **Electronics Manufacturing:** This pillar focuses on promoting electronics manufacturing in the country with the target of NET ZERO Imports by 2020 as a striking demonstration of intent
8. **IT for Jobs:** This pillar focuses on providing training to the youth in the skills required for availing employment opportunities in the IT/ITES sector.
9. **Early Harvest programs:** Early Harvest Program me basically consists of those projects which are to be implemented within short timeline. They are as follows: it platform for massages, biometric attendance, wifi in all Universities, secure e-mail within government, standardize government e-mail designs, public wifi hotspots, school books to be e-books, Sms-based weather information and disaster alerts, national portal for lost and found children.

**How Digital India is going to facilitate e-learning:** Digital India programme covers almost each sectors of India. Directly or indirectly each sector is associated with mass education. The scenario of education sector is changing rapidly in India. With the rapid growth of the digital world education is no longer confined within the four walls. Virtual classrooms and mobile learning is the new concept which makes learning attainable every time, everywhere. Students are now engaged in group learning and collaborative learning. The digital India programme aims how students can learn and teachers can teach better. The digital India Visions to provide broadband connectivity to a quarter of a million rural villages by 2019 and making wifi connections available in every school. So, it's certainly going to provide a positive thrust to the future of India's e-learning. Through online and multimedia tools, students of all ages can learn what when and how they want. Common chalk-board classroom is a backdated concept which is replaced by whiteboards, projectors, speakers and other multimedia tools. Learning is now joyful and lively. There are no longer rigid methodologies, rather smart learn classes with the most student centric approach with more positive outcomes. Digital pedagogy is recent concerning factor of education system. So this Digital India campaign is going to change the education horizon of India which will facilitate not only us but also the generations to come. D'source which is a project under e-Kalpa is running successfully in India. Courses for students and enrolment of students are growing rapidly in the programme. Digital India is offering cloud services to the private sector providers. CSC 2.0 aims to cover 2.5 lakhs gram panchayat to enhance services. Some major steps of digital literacy environment in India are E-participation, E-bhasha, digital locker, E-Sign, Mobile Based Digital Identity, E-Taal, E-Sampark, National Digital Literacy Mission, and National Optical Fibre Network etc.

**Concerning factors regarding the programme:** Some critics said that it an old programme in new structure. It will never be success in country like India. But we the people of India are much happy with the wide technological advancement of our country. E-Governance did not cover such types of services in India. Hindrances are indispensable part of any programme of the world. But we should progress winning these hindrances. There are so many hindrances in the programme of Digital India. Some of them are,

- 1. Economical consideration:** Economical problem is one of the major problems towards the success of the plan because the cost of data is so high in India. Though the programme ensures us to provide data service at low rate to all citizens. Still there is no problem regarding economical services but it needs constant attention.
- 2. Accessibility in villages:** Access towards the village is another major problem. Village people of India do not think about the e-system in any sector. They basically keep faith upon the hard copy or paper work system. Positive outlook of the village people is necessary to succeed the programme. Young educated persons of the village should take the responsibility of awareness.
- 3. Proper Training of ICT:** One of the major part of govt or semi govt employees of India do not know how to use ICT effectively. Teachers of various sectors do know how to use it effectively in learning situation. The condition is miserable among the primary school teachers. That means there is lack of skilled labour in India. Though National Skill Development Corporation has took the responsibility of supplying skilled labour to every sector of the country. Without skill a person will gradually lose the interest in work. Recently MHRD trained 1000 science and engineering teachers in IIT Bombay but it also

needed to focus on social science and language literature teachers. The target is gradually increasing under the project of “National Mission on Education”.

4. **Broadband services:** Broadband service in India is only provided by BSNL. The spectrum scam is one of the major hindrances towards the investment in broadband service. So, corruption is needed to be abolished.
5. **Efficient Execution:** One of the major challenges is the efficient execution of the plan. The programme has huge area of coverage. The programme implementation committee should look after the plan up to the grass root level.
6. **Security and Laws:** Powerful security system is one of the major steps regarding this programme. Protection of data from the hackers and a strong security system is necessary. An important attention is the awareness of people about the cyber laws.

**Prospect regarding the programme:** Hope the dream of our prime minister regarding digital literacy will be in reality in near future. The plan was designed so beautifully and systematically that it ensures every citizens digitalization. The nine pillars of the plan encompass all sides of the people’s charter. Digital Literacy which is a 21st century major skill is one of the major pillars of Digital India. E-governance only gives importance on the citizen centric services but Digital India creates a free and independent learning environment for the Indian citizens. Most of the universities and other national and international important institutions have started to transform their resources to digital format. A positive voice has come out from the all sector of people.

1. All schools will be connected with free wifi system. Higher education institutions will be technologically smart like the universities of US or China. Workable knowledge and original traditional way of acquiring knowledge will increase simultaneously in the programme. India will be digitally linked under an umbrella.
2. Services like bio metric attendance system and digital identification in offices will enhance work period and work culture in offices. It will add speed in work. We can hopefully said that India will lead the world regarding digital ideas and systems.
3. Emails to be primary mode of communication. Cloud storage, Big data will help us to communicate,exchange and gather information. It will save papers and add speed and variety to the communication process.
4. Development of online courses will increase literacy rate and skills among the people. It has already been started and increasing rapidly. The courses of skill dvelopment will enrich India with a great number of skilled labour. Examination will also be taken through internet.
5. Regarding health all services will be available in Internet. Such as online medical consultation, online medical records etc.
6. Mobile banking and digital banking will be on everyone’s mobile. State bank of India has already started their service on e-corner or e-gallery. It will make us free form long queue.
7. SMS based service in all sectors will be started. So, waiting for any news or important information will be closed. In a nutshell, Digital India will provide us a smart, intelligent and democratic economy.

**Conclusions:** The programme of Indian govt has praised in the Silicon Valley of US. India is facing a lot of challenges in education and e-learning had a lot to answer and needed to be taken seriously by the planners of education and government at the same time. In the workshop on “Preparing North East for Digital India” various IT companies promises to help North East for digital development. In knowledge based economy the main aspect of the economic development is not their natural resources and physical assets but the quality and skill of the labour force. If we use e-learning effectively we can reach education to a large constituency that would otherwise not have access to it. The Digital India programme ensures economical connectivity among Indian people. Though there are some problems but the programme will be succeed with the people of India. The huge budgetary support for this programme will make successful the programme. Our India will be digitally strong like western countries. Diversified scope of progress will be open through this project.

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