



Digital India - A Skill Development Programme in India

N. Santosh Ranganath

**Faculty Member, Dept. of Commerce and Management Studies
Dr. B.R. Ambedkar University, Srikakulam, Andhra Pradesh**

Abstract: *The Digital India program is an ambitious initiative to bring closer the government departments and the people of India. The main objective is to render government services to the public real quick and easy without the hassles of paperwork. This is possible when all far and wide areas of this nation are connected through high speed internet network. The estimated cost of this project is about Rs 1.13 lakh crore and will be implemented in phases till 2018. Digital India Program is a public private partner initiative and an inter ministerial and department program where all the ministries will offer it services to the public. The scheme will be monitored and controlled by the Digital India Advisory group which will be headed by the Ministry of Communications and IT.*

Keywords: *Digital India, e-governance, Digital Literacy, e-Sign framework, e-Kranti.*

Introduction

Digital India is an initiative by the Government of India to ensure that Government services are made available to citizens electronically by improving online infrastructure and by increasing Internet connectivity. It was launched on 1 July 2015 by Prime Minister Narendra Modi. The initiative includes plans to connect rural areas with high-speed internet networks. Digital India has three core components. These include:

- The creation of digital infrastructure
- Delivering services digitally
- Digital literacy

A two-way platform will be created where the service providers and the consumers will benefit. The scheme will be monitored and administrated 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 will offer their own services to the public: Healthcare, Education, Judicial, etc. The Public-private partnership model will be adopted selectively. In addition, there are plans to restructure the National Informatics Centre. This project is one among the top priority projects of the Modi Administration.

The project is slated for completion by 2019. A two-way platform will be created where both the service providers and the consumers stand to benefit. 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 Public-private-partnership model shall be

adopted selectively. In addition, there are plans to restructure the National Informatics Centre. This project is one among the top priority projects of the Modi Administration.

The initiative is commendable and deserves full support of all stakeholders. However, the initiative also lacks many crucial components including lack of legal framework, absence of privacy and data protection laws, civil liberties abuse possibilities, lack of parliamentary oversight for e-surveillance in India, lack of intelligence related reforms in India, insecure Indian cyberspace, etc. These issues have to be managed first before introducing DI initiative in India. Digital India project is worth exploring and implementation despite its shortcomings that can be rectified before its implementation.

Challenges before Digital India

The Government of India entity Bharat Broadband Network Limited which executes the National Optical Fibre Network project will be the custodian of **Digital India** (DI) project. BBNL had ordered United Telecoms Limited to connect 250,000 villages through GPON to ensure FTTH based broadband. This will provide the first basic setup to achieve towards DI and is expected to be completed by 2017.

The **Digital India** initiative is a promising initiative of the Indian Government. Many companies have shown their interest in this project. It is also believed that E-commerce would facilitate the DI project. However, it is not free from challenges and legal hurdles. Some believe that DI cannot be successful till mandatory e-governance services in India are introduced. Having incomplete implementation of the National e-Governance Plan of India will only affect the success of the DI project. India has poor regulations in the field of

privacy protection, data protection, cyber law, telegraph, e-governance, e-commerce, etc. Further, many legal experts believe that e-governance and DI without cyber security is useless. The cyber security trends in India have exposed the vulnerability of Indian cyberspace. Even the National Cyber Security Policy 2013 has not been implemented till now. In these circumstances, Critical infrastructure protection would be a really tough task to manage for the Indian Government. The project also lacks the concept of proper E-waste management.

Digital India Week

At the launch ceremony of Digital India Week by Prime Minister Narendra Modi, top CEOs from India and abroad committed to invest Rs 4.5 lakh crore towards this initiative. The CEOs said the investments would be utilized towards making smart phones and internet devices at an affordable price in India which would help generate jobs in India as well as reduce the cost of importing them from abroad. 9 Key points of Digital India Programme are as follow

- Broadband Highways
- Universal Access to Phones
- Public Internet Access Programme
- e-Governance – Reforming government through Technology
- e-Kranti – Electronic delivery of services
- Information for All
- Electronics Manufacturing – Target NET ZERO Imports
- IT for Jobs

- Early Harvest Programmes



Digital India will be vast in scale, and ambitious in its aims in true Modi style. India's top businessmen committed Rs 4.5 lakh crore to build various parts of the program, expected to generate 18 lakh jobs. Modi hopes to reduce corruption in government services by making most of that available online.

So what exactly will Digital India do with such colossal investments? Here are seven things you need to know about it:

Broadband Highways: Modi has said that India is suffering from digital divide - meaning there are millions of people who do not have access to broadband and the opportunities it presents - and that needs to be bridged. Broadband highways will be routes through which internet connectivity will reach 2,50,000 gram panchayats by December 2016. Reliance Jio's 4G plans will also figure in this ambitious programme, which will make for a National Fibre Optic Network by 2016.

Digital Locker: This online locker will be able to store all documents issued to you by the government, and will require an Aadhar card as identification for the first time. After that you will be able to set your own password and even link it with a Google or Facebook account. Services such

as passport applications might become fully online when the relevant authorities are able to access your verified documents online. You won't be required to go to a government office with a folder full of documents.

Mobile connectivity: Over 42,000 villages will have seamless mobile connectivity by 2018. This will require Rs 20,000 crore worth of investment, and companies such as Airtel, Idea and Reliance will all play a role along with state-owned BSNL and MTNL.

e-Kranti: This is perhaps the biggest program within Digital India, and focusses on a mobile-first approach. That means integrating public programmes on single portals, and using technology for their implementation and for public grievance system when they don't work well. The government will also fast track approvals using IT, and mandate standards and protocols for software and hardware. A National Cyber Security Co-ordination Centre will be set up to combat cyber attacks, which have the potential to disrupt large parts of Digital India. Major IT companies such as TCS, Wipro and Infosys are expected to work on projects to make this possible.

Jobs: Business Process Outsourcing (BPO) centres will be set up in states that have lagged in development, such as the North-Eastern states and rural areas. One crore students will be trained in smaller towns and cities in five years, to develop a skilled workforce for such BPOs and the IT sector. Telecom service providers have agreed to train 5 lakh people in smaller towns to work in their projects.

Manufacturing: Digital India seeks to spur electronics manufacturing to the extent that there would be net zero imports — that is exports will equal imports — by 2020.

MyGov: This website crowd sources ideas from the public for design of programmes such as better traffic management, using big data for making cities smarter, and even for the PMO's mobile app among many others. The idea is to start new programmes in consultation with informed citizens for better implementation.

15 Salient things about the Project

Moving ahead on yet another pet project, Prime Minister Narendra Modi is set to launch the 'Digital India' campaign, aimed at creating a digitally empowered society and knowledge economy. The programme comprises of various initiatives, each targeted to prepare India for becoming a knowledge economy and for bringing good governance to citizens through synchronized and co-ordinated engagement of the entire government.

PM Modi launched the Digital India Week on Wednesday evening urging people to gain knowledge and to empower themselves through the Digital India Programme. The vision of Digital India programme also aims at inclusive growth in areas of electronic services, products,

manufacturing and job opportunities etc. The vision of Digital India is centred on three key areas-

- (i) Digital Infrastructure as a utility to every citizen
- (ii) Governance & services on demand
- (iii) Digital Empowerment of citizens

The Digital India programme aims to provide broadband highways, universal access to mobile connectivity, public internet access programme, e-governance: Reforming government through technology, eKranti - Electronic delivery of services, Information for all, Electronics manufacturing: Target net zero imports, IT for jobs and early harvest programmes.

In line with these objectives, the government has launched some initiatives. Others are being readied for launch. We take a look at some of them:

1. Digital Locker System aims to minimize the usage of physical documents and enable sharing of e-documents across agencies. The sharing of the e-documents will be done through registered repositories thereby ensuring the authenticity of the documents online, says the government.
2. **MyGov.in** has been implemented as a platform for citizen engagement in governance, through a "Discuss", "Do" and "Disseminate" approach. The mobile app for MyGov would bring these features to users on a mobile phone.
3. Swachh Bharat Mission (SBM) Mobile app would be used by people and Government organizations for achieving the goals of Swachh Bharat Mission.

4. eSign framework would allow citizens to digitally sign a document online using Aadhaar authentication.
5. The Online Registration System (ORS) under the eHospital application has been introduced. This application provides important services such as online registration, payment of fees and appointment, online diagnostic reports, enquiring availability of blood online etc, the government claims.
6. National Scholarships Portal is said to be a one stop solution for end to end scholarship process right from submission of student application, verification, sanction and disbursal to end beneficiary for all the scholarships provided by the Government of India.
7. DeitY has undertaken an initiative namely Digitize India Platform (DIP) for large scale digitization of records in the country that would facilitate efficient delivery of services to the citizens.
8. The Government of India has undertaken an initiative namely Bharat Net, a high speed digital highway to connect all 2.5 lakh Gram Panchayats of country. This would be the world's largest rural broadband connectivity project using optical fibre.
9. Policy initiatives have also been undertaken by DeitY in the e-Governance domain like e-Kranti Framework, Policy on Adoption of Open Source Software for Government of India, Framework for Adoption of Open Source Software in e-Governance Systems, Policy on Open Application Programming Interfaces (APIs) for Government of India, E-mail Policy of Government of India, Policy on Use of IT Resources of Government of India, Policy on Collaborative Application Development by Opening the Source Code of Government Applications, Application Development & Re-Engineering Guidelines for Cloud Ready Applications.
10. BSNL has introduced Next Generation Network (NGN), to replace 30 year old exchanges, which is an IP based technology to manage all types of services like voice, data, multimedia/ video and other types of packet switched communication services.
11. BSNL has undertaken large scale deployment of Wi-Fi hotspots throughout the country. The user can latch on the BSNL Wi-Fi network through their mobile devices.
12. BPO Policy has been approved to create BPO centres in different North Eastern states and also in smaller / mofussil towns of other states.
13. Electronics Development Fund (EDF) Policy aims to promote Innovation, R&D, and Product Development and to create a resource pool of IP within the country to create a self-sustaining eco-system of Venture Funds.
14. National Centre for Flexible Electronics (NCFlexE) is an initiative of Government of India to promote research and innovation in the emerging area of Flexible Electronics.

15. Centre of Excellence on Internet on Things (IoT) is a joint initiative of Department of Electronics & Information Technology (DeitY), ERNET and NASSCOM.

"The estimated impact of Digital India by 2019 would be cross cutting, ranging from broadband connectivity in all Panchayats, Wi-fi in schools and universities and Public Wi-Fi hotspots. The programme will generate huge number of IT, Telecom and Electronics jobs, both directly and indirectly. Success of this programme will make India Digitally empowered and the leader in usage of IT in delivery of services related to various domains such as health, education, agriculture, banking, etc," the government claims.

Digital India - Way Forward

Digital India which consists of three key thrust areas viz. digital infrastructure, digital services, and digital empowerment needs to be viewed through the prism of affordability, accessibility, and adaptability in order for it to be successful.

Narendra Modi, the Prime Minister of India launched the Digital India program on July 1, 2015 to reform governance through the use of digital technology. The vision of Digital India program also aims at inclusive growth in areas of electronic services, products, manufacturing, and job opportunities. The vision of Digital India is focused on three key areas - digital infrastructure as a utility to every citizen, governance and services on demand, and digital empowerment of citizens. The success of Digital India mission lies in good governance and corporate participation with massive investment commitment being made by the galaxy of leading personalities of large corporate houses at the launch.

Digital India Conclave 2015 was organized by Broadband India Forum on August 24, 2015 in New Delhi. There were eminent speakers from the government, academia, and industry with expertise in digital technologies and its applications, skill development, applications and services, citizens' empowerment, and cyber law/cyber crime. A Digital India Guidebook - a first of its kind showcasing the contributions of the industry, the academia, as well as the government policies was also released.

Some of the key takeaways from the day long deliberations were subsequently compiled in the form of key recommendations to be shared with the principal stakeholders of Digital India. All of these recommendations could help bring about huge benefits in terms of digital governance and digital empowerment for each and every citizen of this country and fulfil the dream of achieving Digital India in the given timeframe.

Some of the key recommendations of Digital India Conclave include:

- Digital India which consists of three key thrust areas viz. digital infrastructure, digital services, and digital empowerment needs to be viewed through the prism of affordability, accessibility, and adaptability in order for it to be successful. This means access to broadband/Internet and to digital services must be affordable, easily accessible (anywhere, anytime), and should also be adaptable to the unique needs of the customer. These services should be made available to every citizen within walking distance.

In the first step, each gram panchayat must have a village level entrepreneur (VLE) who shall be

digitally enabled. He should be provided a smartphone and it would be his job to provide all the government services to the citizens of the gram panchayat and the connected villages.

- For the ultimate success of Digital India, every single service delivery to the rural masses needs to be broken down into clear cut, tangible targets which must be monitored continuously by a nodal agency.
- Success of a mission mode project like Digital India would depend on the clarity of the service targets and the monitoring of its implementation by a single entity which is fully empowered. Therefore, it is necessary to create one single entity under the direct control of the highest office of the country to monitor its implementation in a time bound manner like UID and it should be headed by a person of eminence from the ICT and management sector. The board of governance and implementation could also co-opt the best skills and best practices from the private sector.
- Among the challenges in implementing Digital India is how the key National Optic Fibre Network (NOFN) or Bharat Net project should be supervised by the nodal entity. This entity shall in turn report to the super entity responsible for managing the Digital India project, as mentioned in recommendation. The view of the conclave is that Bharat Net should be re-structured by having co-participation of the state governments in its working on the lines of a joint center-state model. Even the panchayats should be co-opted as a stakeholder under the 4Ps (Panchayat-

Public-Private-Partnership) model. This new entity should be modeled on the lines of DMRC. It should be given powers and authority with accountability to deliver the given targets.

- To meet Digital India's targets of providing broadband to all by 2020, newly identified bands may be explored to augment the existing spectrum allocation. Some of the suggestions made include:

Frequency bands. The following frequency bands for IMT (in WRC Agenda item 1.1), 1452-1492 MHz and 3.300-3.400 MHz should be included in the common proposal for APT by the National Preparatory Committee spearheaded by WPC-DOT to WRC 2015. Flexible spectrum sharing norms. The government needs to come out with acceptable and flexible spectrum sharing norms followed by a complementary spectrum trading policy, which shall pave the way for large chunks of spectrum being made available to operators for efficient deployment of mobile broadband. Infrastructure. Pooling of active and passive infrastructure needs to be done including providing fiber connectivity to 100,000 towers in rural areas.

- Digital Literacy campaign should take into account the impact of cyber laws and cyber hygiene, and so on as more and more people get digitally enabled. Empowering of women, building awareness, and synchronization of various laws, e-crimes, laws and regulation on trolling and spamming, being signatory to Cyber Crime Convention, and so on shall be required to be included as part of the overall Digital Literacy program.

It was recommended that all public, private, NGOs, and other educational institutions should be used to spread the message across and provide awareness on these important issues to all segments of the society, so as to make them aware and protect them from harmful effects of the Internet.

- To digitally empower every citizen, the government has to work toward achievement of smaller targets of the digital state, the digital district, the digital block, the digital panchayat, and the digital citizen.
- Creation of skill sets is an essential part of the Digital India program. Digital infrastructure, digital content, and digital services must go hand-in-hand with the creation of a digitally enabled citizen. Each village or village cluster (gram panchayat) will have one village level entrepreneur (VLE) who shall be the nodal hub for delivery of all electronic G2C services to the village or the village cluster. He should be fully skilled for delivery of the services.
- The success of Digital India depends on a close and synergistic relationship between all stakeholders viz. central government agencies, state government agencies, concerned regulators, and the industry. There needs to be a mutual trust based working among all players in complete harmony. A mechanism needs to be found for building trust as a key element of the public and private sector partnership for achieving the goals of the Digital India mission.

- The possibility of institutional conflicts jeopardising the progress of implementing the Digital India program was echoed by one and all. To ensure smooth progress of the project, it was recommended that a suitable mechanism has to be evolved to resolve institutional conflicts which are likely to arise due to the presence of multiple institutions at the center and state level besides regulators and the industry.

It was felt that these ten recommendations, if implemented in letter and spirit, would enable every Indian to be digitally empowered and we would have achieved the vision and dream of the Prime Minister of implementing Digital India.

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