ABSTRACT
Digital describes electronic technology that generates, stores and processes data so that it is stored in a virtual central repository and is easy to access anywhere anytime in addition to creating a transparent environment. Digital India is a dream project of the Indian Government to remodel India as a front-runner in this knowledge based society and empower them through good governance by synchronizing and coordinating in public accountability, digitally connecting individuals and organizations and delivering the government programmes to mobilize the capability of information technology across government departments. This programme will help to make India smart. Today, every nation wants to be highly digitized and this programme strives to provide equal opportunities and benefits to both the user and service provider. The current paper tries to project how digital services will make India smart and more sustainable besides impacting the common citizen.

INTRODUCTION
In our day and age, technology is omnipresent and an integral part of our lives. Technology is being implemented in almost every section of our lives and business structures. From smart phones to lightning-fast laptops to GPS devices, it’s hard to imagine life without technology. In the twenty-first century, one of the most important technologies is the power of the digitization. The system, which allows individuals to communicate globally. Digital India is a campaign run by the government of India to make this country digitally equipped. The aim of launching this campaign is to provide Indian citizens electronic government services by reducing the paperwork. It is very effective and efficient technique which will save time and man power to a great extent. This initiative was started on 1st of July in 2015 to connect people of rural areas with the high-speed internet networks to access any information needed. Digital India is an umbrella programme that covers multiple Government Ministries and Departments. It weaves together a large number of ideas and thoughts into a single, comprehensive vision so that each of them can be implemented as part of a larger goal.
programme clearly confirms that India as a nation is at its nascent stage. One can easily assure that India will be digitally ready in the next three years. The vision of Digital India programme is to transform India into a digitally empowered society and knowledge economy. The Digital India programme is centered on three key vision areas:

1. **Digital Infrastructure as Utility to Every Citizen**
   - Availability of high-speed internet as a core utility for delivery of services to citizens.
   - Cradle-to-grave digital identity that is unique, lifelong, online and authenticable to every citizen.
   - Mobile phone and Bank account enabling citizen participation in digital and financial space.
   - Easy access to a Common Service Centre.
   - Shareable private space on a public Cloud.
   - Safe and secure Cyber-space.

2. **Governance and Services on Demand**
   - Seamlessly integrated across departments or jurisdictions.
   - Services availability in real time from online and mobile platforms.
   - All citizen entitlements to be available on the Cloud to ensure easy access.
   - Government services digitally transformed for improving Ease of Doing Business.
   - Making financial transactions above a threshold, electronic and cashless.
   - Leveraging GIS for decision support systems and development.

3. **Digital Empowerment of Citizens:**
   - Universal digital literacy.
   - All digital resources universally accessible.
   - All Government documents/ certificates to be available on the Cloud.
   - Availability of digital resources / services in Indian languages.
   - Collaborative digital platforms for participative governance.
   - Portability of all entitlements for individuals through the Cloud.

The overall scope of this programme is to prepare India for a knowledge future, on being transformative that is to realize:

$$\text{IT (Indian Talent) + IT (Information Technology) = IT (India Tomorrow)}$$

making technology central to enabling change, on being an Umbrella Programme – covering many departments. The programme weaves together a large number of ideas and thoughts into a single, comprehensive vision, so that each of them is seen as part of a larger goal. Each individual element stands on its own, but is also part of the larger picture. The weaving together makes the Mission transformative in totality. The Digital India Programme will pull together many existing schemes which would be restructured and re-focused and implemented in a synchronized manner.

Our Prime Minister wants India on the cloud. What that means is that every individual’s personal record is stored in a virtual central repository or Digital Locker, which can be accessed by government officials anywhere anytime, through established protocols. For example, an individual’s certificates from school or college, birth certificates, medical records etc are all stored in the individual’s folder and these can be accessed by any government official to confirm or verify the individual’s claims without the need for the individual to present the hard copy. The purpose is to free the individual from the need to physically present the hard copy for verification in any government office. This will save a lot of time for the individual and the government officials, as also reduce the opportunity for bribes being demanded.

The government has invited suggestions from the technical talent pool in India to submit suggestions through the site MyGov.in, on how to develop the communication protocol or the applications programming interface (API) for delivering this project. The plan is to create a digital platform to serve nine verticals; e-governance, e-Kranti, public internet access program, broadband highway, information access for all, mobile connectivity, early harvest programs, IT for jobs, and electronic manufacturing. The government plans to extend the project to the Clean India campaign as also, the Skills and Entrepreneurship project for job creation. The government will realign the National Informatics Centre to assist in integrating the above with delivering projects of various ministries, through direct or PPP mode.
DISCUSSION

Nine pillars of Digital India

Digital India aims to provide the much needed thrust to the nine pillars of growth areas, namely

1. **Broadband Highways**

   This covers three sub-components, namely Broadband for All Rural, Broadband for All Urban and National Information Infrastructure.
   - Under **Broadband for All Rural**, 250 thousand village Panchayats will be covered by December, 2016. **DoT** will be the nodal Department and the project cost is estimated to be approximately Rs. 32,000 Cr.
   - Under **Broadband for All Urban**, Virtual Network Operators would be leveraged for service delivery and communication infrastructure in new urban development and buildings would be mandated.

2. **Universal Access to Mobile Connectivity**

   - The initiative is to focus on network penetration and fill the gaps in connectivity in the country.
   - All together 42,300 uncovered villages will be covered for providing universal mobile connectivity in the country.
   - **DoT** will be the nodal department and project cost will be around Rs 16,000 Cr during FY 2014-18.

3. **Public Internet Access Programme**

   - The two sub-components of Public Internet Access Programme are Common Service Centres and Post Offices as multi-service centres.
   - Common Service Centres 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. CSCs would be made viable, multi-functional end-points for delivery of government and business services. **DeitY** would be the nodal department to implement the scheme.
   - A total of 150,000 Post Offices are proposed to be converted into multi service centres. Department of Posts would be the nodal department to implement this scheme.

4. **e-Governance – Reforming Government through Technology**

   - Government Business Process Re-engineering using IT to improve transactions is the most critical for transformation across government and therefore needs to be implemented by all ministries/departments.

   The guiding principles for reforming government through technology are:

   1. Form simplification and field reduction – Forms should be made simple and user friendly and only minimum and necessary information should be collected.
2. Online applications, tracking of their status and interface between departments should be provided.

3. Use of online repositories e.g. school certificates, voter ID cards, etc. should be mandated so that citizens are not required to submit these documents in physical form.

4. Integration of services and platforms, e.g. UIDAI, Payment Gateway, Mobile Platform, Electronic Data Interchange (EDI) etc. should be mandated to facilitate integrated and interoperable service delivery to citizens and businesses.
   - **Electronic Databases** – all databases and information should be electronic and not manual.
   - **Workflow Automation Inside Government** – The workflow inside government departments and agencies should be automated to enable efficient government processes and also to allow visibility of these processes to the citizens.
   - **Public Grievance Redressal** – IT should be used to automate, respond and analyze data to identify and resolve persistent problems. These would be largely process improvements.

5. **e-Kranti (NeGP 2.0) – Electronic delivery of services**
   - There are 31 Mission Mode Projects under different stages of e-governance project lifecycle. Further, 10 new MMPs have been added to e-Kranti by the Apex Committee on National e-Governance Plan (NeGP) headed by the Cabinet Secretary in its meeting held on 18th March 2014.

**Technology for Education – e-Education**
- All Schools will be connected with broadband. Free wifi will be provided in all secondary and higher secondary schools (coverage would be around 250,000 schools). A programme on digital literacy would be taken up at the national level. MOOCs – Massive Online Open Courses shall be developed and leveraged for e-Education.

**Technology for Health – e-Healthcare**
- E-Healthcare would cover online medical consultation, online medical records, online medicine supply, pan-India exchange for patient information. Pilots shall be undertaken in 2015 and full coverage would be provided in 3 years.

**Technology for Farmers**
- This would facilitate farmers to get real time price information, online ordering of inputs and online cash, loan and relief payment with mobile banking.

**Technology for Security**
- Mobile based emergency services and disaster related services would be provided to citizens on real time basis so as to take precautionary measures well in time and minimize loss of lives and properties.

**Technology for Financial Inclusion**
- Financial Inclusion shall be strengthened using Mobile Banking, Micro-ATM program and CSCs/ Post Offices.

**Technology for Justice**
- Interoperable Criminal Justice System shall be strengthened by leveraging e-Courts, e-Police, e-Jails and e-Prosecution.

**Technology for Planning**
- National GIS Mission Mode Project would be implemented to facilitate GIS based decision making for project planning, conceptualization, design and development.

**Technology for Cyber Security**
- National Cyber Security Co-ordination Center would be set up to ensure safe and secure cyber-space within the country.

6. **Information for All**
- **Open Data platform and online hosting of information & documents** would facilitate open and easy access to information for citizens.
- **Government shall pro-actively engage through social media** and web based platforms to inform citizens. MyGov.in has already been launched as a medium to exchange ideas/ suggestions with Government. It will facilitate 2-way communication between citizens and government.
- **Online messaging** to citizens on special occasions/ programs would be facilitated through emails and SMSes.
- The above would largely utilise existing infrastructure and would need limited additional resources.
Electronics, Smart Energy meters, Smart cards, micro-ATMs
- Incubators, clusters
- Skill development
- Government procurement
There are many ongoing programs which will be fine-tuned. Existing structures are inadequate to handle this goal and need strengthening.

8. IT for Jobs
- 1 Cr students from smaller towns & villages will be trained for IT sector jobs over 5 years. DeitY would be the nodal department for this scheme.
- BPOs would be set up in every north-eastern state to facilitate ICT enabled growth in these states. DeitY would be the nodal department for this scheme.
- 3 lakh service delivery agents would be trained as part of skill development to run viable businesses delivering IT services. DeitY would be the nodal department for this scheme.
- 5 lakh rural workforce would be trained by the Telecom Service Providers (TSPs) to cater to their own needs. Department of Telecom (DoT) would be the nodal department for this scheme.
9. Early Harvest Programmes

- **IT Platform for Messages**
  A Mass Messaging Application has been developed by DeitY that will cover elected representatives and all Government employees. 1.36 Cr mobiles and 22 Lakh emails are part of the database.

- **Government Greetings to be e-Greetings**
  Basket of e-Greetings templates have been made available. Crowd sourcing of e-Greetings through MyGov platform has been ensured. E-Greetings portal has been made live on 14th August 2014.

- **Biometric attendance**
  It will cover all Central Govt. Offices in Delhi and is already operational in DeitY and has been initiated in the Department of Urban Development. On-boarding has also started in other departments.

- **Wi-Fi in All Universities**
  All universities on the National Knowledge Network (NKN) shall be covered under this scheme. Ministry of HRD is the nodal ministry for implementing this scheme.

- **Secure Email within Government**
  1. Email would be the primary mode of communication.
  2. Phase-I upgradation for 10 lakh employees has been completed. In Phase II, infrastructure would be further upgraded to cover 50 lakh employees by March 2015 at a cost of Rs 98 Cr. DeitY is the nodal department for this scheme.

- **Standardize Government Email Design**
  Standardised templates for Government email are under preparation and would be ready by October 2014. This would be implemented by DeitY.

- **Public Wi-fi hotspots**
  Cities with population of over 1 million and tourist centres would be provided with public wi-fi hotspots to promote digital cities. The scheme would be implemented by DoT and MoUD.

- **School Books to be eBooks**
  All books shall be converted into eBooks. Min. of HRD/DeitY would be the nodal agencies for this scheme.

- **SMS based weather information, disaster alerts**
  SMS based weather information and disaster alerts would be provided. DeitY’s Mobile Seva Platform is already ready and available for this purpose. MoES (IMD) / MHA (NDMA) would be the nodal organizations for implementing this scheme.

- **National Portal for Lost & Found children**
  1. This would facilitate real time information gathering and sharing on the lost and found children and would go a long way to check crime and improve timely response.
  2. DeitY/ DoWCD would be the nodal departments for this project.

Some of the aforementioned projects are under various stages of implementation and may require some
transformational process reengineering, refinements and adjustment of scoping and implementation strategy to achieve the desired service level objectives by the concerned line Ministries/Departments at the Central, State and Local Government levels.

**IMPACT OF DIGITAL INDIA:**

The digital India programme provides a huge opportunity to use the latest technology to redefine India the paradigms of service industry. A digitally connected India can help in improving economic, social and environmental condition of people living in rural areas by the mean of development of non-agricultural economic activities apart from providing access to education, health and financial services. There are some impacts of digital India which are as follows:-

**Economic Impact:** It can play a very significant role in macro economic factors such as GDP growth, employment generation, labor productivity, growth in number of businesses and revenue leakages for the government.

**Social Impact:** Social sectors namely, education, healthcare, and banking are unable to reach out to the citizens due to obstructions and limitations such as middleman, illiteracy, poverty, lack of funds and investments. Modern ICT makes it easier for people to obtain access to services and resources even in villages too. The penetration of mobile devices may be highly useful as a complementary channel to public service delivery apart from creation of entirely new services.

**Environment Impact:** The major changes in the technology space have not only brought changes to the economic system but are also contributing into the environment changes. The next generation technologies are helping in lowering the carbon footprint by the way of reducing fuel consumption, waste management, greener management, greener workplaces and thus leading to a greener ecosystem.

**CHALLENGES AHEAD:**

**Infrastructure**

India will need massive Data Centres with mirroring i.e. all data will need to be backed up at an alternate site would surely sort out many of the problems. This will require large investment to set up state-of-the-art data centres in various parts of India. These data centres will have to be provided fail proof physical and cyber security cover.

**Security**

Security is not an act but merely it is a process and a lifestyle. India is a nation where we neither understand security nor practice it, as part of our daily lifestyle. This has left our IT infrastructure vulnerable to security attack either through cyber space or through internal subvert. India is still nowhere in establishing secure and impenetrable networks, as seen in various attacks on critical sites of various government establishments, over the years. Government sites especially are vulnerable. Then there is the real
possibility of internal damage that can result in stealing or damaging of data, at any given point. The biggest challenge to the success of the Digital India project is not on the delivery side but on the security side too. Securing this data for all time is going to be the real challenge that the government has to address before embarking on this ambitious project.

Cyber Laws
When the government stores personal data of the citizens, the government becomes its custodian, which means that the government is responsible for securing the data and also preventing its misuse. The question is how is the government going to prevent litigation in cases of data if misused? For instance, what happens when one individual uses a government official to access another individual’s medical records and then uses this information against that individual and so on… Furthermore, India is a country with a VIP culture. What happens in a case of data pertaining to a VIP being accessed, lost or damaged by someone with vested interest? In this scenario, the government becomes a party to the data breach. What happens if the data is damaged or the delay in verification causes the individual a financial loss or a loss of business opportunity? Will the government be liable for the loss? Do we have cyber laws that adequately address such scenarios? These will have to be looked at very closely by the government prior to launching the Digital India programme and with the probable solutions to the above problem.

Training
The Digital India program will have to simultaneously launch a training program to ensure all government officials in order to understand about the available data, its protocols of access and protocols of security, and also the legal complications in case of data breach. Given the large size of the government, it will take time and investment to train and cover all individuals, for successful delivery of the program.

CONCLUSION
Even though India is known as the powerhouse of software, the availability of e-government services to citizens is still comparatively very low. The Digital India programme is just the beginning of a digital revolution, once implemented properly it will open various new avenues for the citizens of our country. It is one of the highly ambitious programme of Indian government. Various MNCs like Microsoft, Google have also agreed to be the partner and help the success of Digital India initiative. If the government can extend the vision to include email, Messaging and cloud services on servers located in India, it will truly usher in a digital revolution in India, besides opening up massive business opportunities for many of us even at our home. This will enable the country to become better in the terms of sustainable development along with transparency. Thus, it can be further said that India can’t be a Developed Country until and unless if it is not e-Governed. Therefore making necessary to develop e-governance, cloud storage, elimination of redundancy, thus by facilitating everything online. Thus, Digital India programme is a great opportunity to develop the digital backbone in the country.

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