

SCOPE AND IMPACT OF DIGITAL INDIA: THE REVIEW

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ABSTRACT

The activities of human development has taken explosive growth with the help of information and communication technology (ICT). Digital technology has been classified as a General Purpose Technology (GPT). GPTs have three key characteristics: (i) they must be 'pervasive' meaning they affect almost all sectors; (ii) they improve over time and thus lower the costs for users; (iii) they must facilitate innovation by making it easier to create and make novel products and/or processes. The challenge for all stakeholders in the ICT ecosystem has been to quantify the impact of digitization. However, realizing the opportunity that broadband presents will require that policymakers undergo a shift in their thinking. They must go beyond considering ICT and focus on digitization, with an emphasis on ICT usage rather than just access. They must take into account their current level of digitization in order to ensure that they are focusing on the right investments to advance to the next stage. And they need to look with fresh eyes at policies that were developed a decade ago to understand how they can be updated for a new era. Policymakers are hopeful about this opportunity, and many are committed to action. The steps they take in the coming years will determine whether they can translate opportunity into reality or not.

INTRODUCTION

India's challenge to becoming a digital economy remains formidable. The government has announced a slew of new initiatives: Digital India; Make in India; Start-up India; and innovative applications of Aadhaar such as JAM (Jan-Dhan Yojana-Aadhaar-Mobile trinity) and Digital Lockers. Successful and accelerated implementation of these programmes can make up for some of the lost time. But India also needs to do more by strengthening the basic foundations of its digital economy.

INITIATIVES BY GOVERNMENT

The initiative includes plans to connect rural areas with high-speed internet networks. Digital India consists of three core components. They are:

- ❖ Development of secure and stable Digital Infrastructure
- ❖ Delivering government services digitally
- ❖ Universal Digital Literacy

The Government of India hopes to achieve growth on multiple fronts with the Digital India Programme. Specifically, the government aims to target nine 'Pillars of the Digital India' that they identify as being:

- ❖ Broadband Highway
- ❖ Universal Access to Mobile connectivity
- ❖ Public Internet Access Programme
- ❖ E-Governance – Reforming Government through Technology
- ❖ E-Kranti - Electronic delivery of services
- ❖ Information for All
- ❖ Electronics Manufacturing
- ❖ IT for Job
- ❖ Early Harvest Programmes

SCOPE OF DIGITAL INDIA PROGRAMME

- ❖ 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.
- ❖ 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.

- ❖ Swachh Bharat Mission (SBM) Mobile app would be used by people and Government organizations for achieving the goals of Swachh Bharat Mission.
- ❖ E-Sign framework would allow citizens to digitally sign a document online using Aadhaar authentication.
- ❖ The Online Registration System (ORS) under the E-Hospital 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.
- ❖ National Scholarships Portal is a one stop solution for end to end scholarship process right from submission of student application, verification, sanction and disbursement to end beneficiary for all the scholarships provided by the Government of India.
- ❖ 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.
- ❖ 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 fiber.
- ❖ 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.
- ❖ 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.
- ❖ To deliver citizen services electronically and improve the way citizens and authorities transact with each other, it is imperative to have ubiquitous connectivity. The government also realizes this need as reflected by including 'broadband highways' as one of the pillars of Digital India. While connectivity is one criterion, enabling and providing technologies to facilitate delivery of services to citizens forms the other.

HIGHLIGHTS OF THE PROGRESS IN DIGITAL INDIA

- ❖ More than 12,000 rural post office branches have been linked digitally and soon payment banking would also become a reality for them.
- ❖ The government also plans to make 'digital village' across the country, by linking all schemes with technology. The 'digital village' would be powered by LED lighting, solar energy, skill development centres and e-services like e-education and e-health.
- ❖ Electronic transactions related to e-governance projects in the country have almost doubled in 2015, owing to the Digital India Programme. According to government website electronic transaction aggregation and analysis layer (eTaal), 3.53 billion transactions took place in 2014, which almost doubled in 2015 to 6.95 billion.
- ❖ The progressive policies and aggressive focus on 'Make in India' have played a significant role in the resurgence of the electronics manufacturing sector.

ECONOMIC IMPACT

According to analysts, the Digital India plan could boost GDP up to \$1 trillion by 2025. It can play a key role in macro-economic factors such as GDP growth, employment generation, labor productivity, growth in number of businesses and revenue leakages for the Government. As per the World Bank report, a 10% increase in mobile and broadband penetration increases the per capita GDP by 0.81% and 1.38% respectively in the developing countries. India is the 2nd largest telecom market in the world with 915 million wireless subscribers and world's 3rd largest Internet market with almost 259 million broadband users. There is still a huge economic opportunity in India as the tele-density in rural India is only 45% where more than 65% of the population lives. Future growth of telecommunication industry in terms of number of subscribers is expected to come from rural areas as urban areas are saturated with a tele-density of more than 160%.

SOCIAL IMPACT

Social sectors such as education, healthcare, and banking are unable to reach out to the citizens due to obstructions and limitations such as middleman, illiteracy, ignorance, poverty, lack of funds, information and investments. These challenges have led to an imbalanced growth in the rural and urban areas with marked differences in the economic and social status of the people in these areas. Modern ICT makes it easier for people to obtain access to services and resources. The penetration of mobile devices may be highly useful as a complementary channel to public service delivery apart from creation of entirely new services which may have an enormous impact on the quality of life of the users and lead to social modernization. The poor literacy rate in India is due to unavailability

of physical infrastructure in rural and remote areas. This is where m-Education services can play an important role by reaching remote masses. According to estimates, the digital literacy in India is just 6.5% and the internet penetration is 20.83 out of 100 populations. The digital India project will be helpful in providing real-time education and partly address the challenge of lack of teachers in education system through smart and virtual classrooms. Education to farmers and fisher men can be provided through mobile devices. The high speed network can provide the adequate infrastructure for online education platforms like massive open online courses (MOOCs). Mobile and internet banking can improve the financial inclusion in the country and can create win-win situation for all parties in the value-chain by creating an interoperable ecosystem and revenue sharing business models. Telecom operators get additional revenue streams while the banks can reach new customer groups incurring lowest possible costs. Factors such as a burgeoning population, poor doctor patient ratio (1:870), high infant mortality rate, increasing life expectancy, fewer quality physicians and a majority of the population living in remote villages, support and justify the need for tele medicine in the country. M-health can promote innovation and enhance the reach of healthcare services. Digital platforms can help farmers in know-how (crop choice, seed variety), context (weather, plant protection, cultivation best practices) and market information (market prices, market, demand, logistics).

ENVIRONMENTAL IMPACT

The major changes in the technology space will not only brought changes to the economic system but will also contribute to the environmental changes. The next generation technologies will help in lowering the carbon footprint by reducing fuel consumption, waste management, greener workplaces and thus leading to a greener ecosystem. The ICT sector helps in efficient management and usage of scarce and non-renewable resources. Cloud computing technology minimizes carbon emissions by improving mobility and flexibility. The energy consumption can be decreased from 201.8 terawatt hour (TWh) in 2010 to 139.8TWh in 2020 by higher adoption of cloud data centers causing a 28% reduction in carbon footprint from 2010 levels.

FUTURE ENHANCEMENT

Digital India aims to encourage the participation of individuals in digital activities through promotion of digital usage through mobile phones etc. and also beefing up of infrastructure. High speed internet will be made available at the Gram Panchayat level. Individuals will maintain a digital identity right from birth. A public cloud will be created with private space that could be shared. Emphasis will also be placed on making cyber space secure for Indians.

All departments and ministries will work together to provide single window access to all individuals. Government services can be availed either through mobile phones or through the internet. All processes will be simplified, making digital access easier. Citizen entitlements will be made available on the cloud. Also, efforts will be undertaken to make financial transactions of a sizeable amount electronic and cashless.

Another major aim of the Digital India is to educate people and increase awareness about digital processes. To further this aim, the government will promote universal digital literacy and make all digital resources universally accessible to the people. Also, to make digital resources and services accessible to all people, it will be made available in all Indian languages.

CONCLUSION

A digitally connected India can help in improving social and economic condition of people through development of non-agricultural economic activities apart from providing access to education, health and financial services. However, it is important to note that ICT alone cannot directly lead to overall development of the nation. The overall growth and development can be realized through supporting and enhancing elements such as literacy, basic infrastructure, overall business environment, regulatory environment, etc.

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