Realization of E-Governancethrough Digital Revolution: Digital India

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Abstract—The subsistence of Information and Communication Technology has offered an apparatus for improved communication, extraction of data and exploitation of information to its users. E-Governance exercises the Information and Communication Technology to perk up the scheme of government that is already in existence and provide e-services to the citizens for betterment of the nation. Such developments in E-Governance give chances to strap up the supremacy of Information and Communication Technology to formulate the administration of government economically and qualitatively approachable. This paper has threefold objective. Firstly, it throws light on conceptual model of E-Governance and discusses about various e-services like e-citizen, e-education, e-medical, e-transportation, e-rural admin, e-administration and so on. Secondly, the emergence of Digital India is discussed which assists in the realization of E-Governance. The key components: Digital Infrastructure as a Utility to Every Citizen, Governance & Services on Demand, Digital Empowerment of Citizens and nine pillars of Digital India program is also introduced. Finally, the paper is concluded with the vision of digitally empowerment of citizens of India by the year 2020.

Keywords—Information and Communication Technology (ICT), E-Governance, Digital India, Government of India (GOI), E-services, Digital Revolution.

I. INTRODUCTION

E-Governance is the execution and release of government services with the help of information communication technology to provide Transparent, Effective, Efficient, Responsive and Accountable governance to the society. It is defined as shown in Fig.1."E-governance is the application of information & communication technologies to transform the efficiency, effectiveness, transparency and accountability of informational & transactional exchanges with in government, between govt. & govt. agencies of National, State, Municipal & Local levels, citizen & businesses, and to empower citizens through access & use of information [1]".
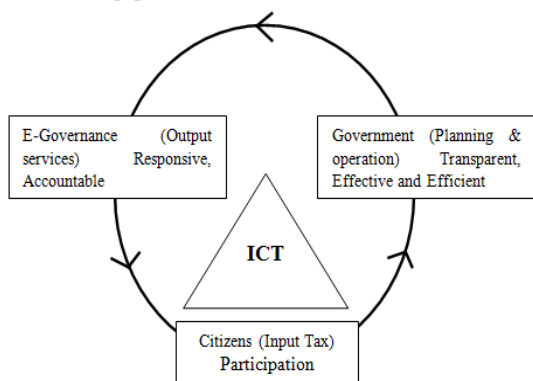

Fig.1.Conceptual Model of E-Governance

To digitally empower India as a whole as per the Government's vision to a "Digital India", the Government aims to target the rural and remotest areas of the country to make a nationwide digital inclusion a reality [2].E-Governance through technology in Indiaoffers various E-services as mentioned below:

- **E-Citizen:** The development of E-citizen integrated service centers offers various services viz. issue of certificates, Aadhar cards and Ration cards, Payment of bills and taxes and Passports etc.
- **E-Transport:** It will facilitate service related to transport viz. registration of vehicles, driving licenses, Pollution control checks etc.
- **E-Medicine:** It will assist citizens by providing improved medical services by connecting hospitals from diverse regions of the country.
- **E-Education:** It will provide access to assorted schemes and programs in educating the citizens of nation with the digital literacy.
- **E-Administration:** It is concerned with developing a network of all government offices that will smoothen the association among various departments [10].
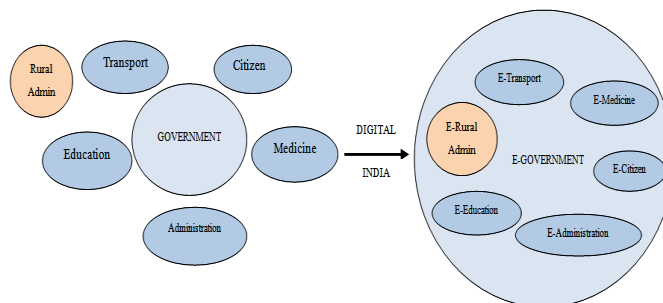

Fig.2. Realization of E-Governance by Digital India

II. DIGITAL INDIA PROGRAMME

Digital India is an umbrella program that covers several Government Ministries and Departments. It intertwines collectively a large number of opinions and ideas into a solitary, inclusive apparition so that apiece of them can be put into practice as part of a larger goal. Each individual element stands on its own, but is also part of the larger picture. Digital India program is implemented by the Government of India along with the coordination of the Department of Electronics and Information Technology (DeitY) [3].
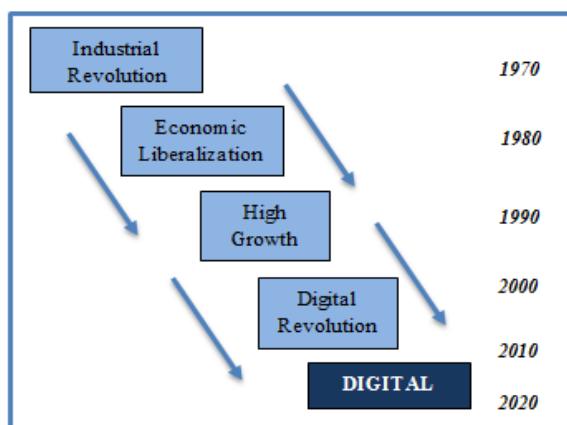

Fig.3. Emergence of Digital India

Fig.3. depicts the emergence of Digital India originated from Industrial Revolution, Economic Liberalization, and High Growth Phase.

The transformation of India into a digitally empowered society and knowledge economy is the aim of Digital India program by leveraging Information Technology as a growth engine of new India. Digital India Project will be advantageous in two aspects:

- **Community Profit:** It will help citizens of rural areas to improve their knowledge level by offering internet facilities. E-Banking service will assists in reduced time for banking transactions that avoids the long waiting queue in banks.

- **Country Growth:** Economic growth of country will boost by offering services to sectors viz. agriculture, education, transportation, medicine, administration and so on [4].

Components of Digital India: Digital India Programme is centered on three key areas: Digital Infrastructure as a Utility to Every Citizen, Governance & Services on Demand, Digital Empowerment of Citizens as mentioned in Table 1 along with their respective tasks.The vision of

Digital India is an ambitious vision that will impel India towards next generation development and serves as an umbrella activity for E-Governance which will require colossal computing and network infrastructure.The accurate implementation of digital India program will bring together government, business and citizens and everyone will work altogether in proficient manner by using Information and Communication Technology [5].

Infrastructure as a Utility to Every Citizen	Governance & Services On Demand	Digital Empowerment of Citizens
• High speed internet as a core utility • Cradle to grave digital identity- unique, lifelong, online, authenticable • Mobile phone & Bank account enabling participation in digital & financial space • Ease of access to a Common Service Centre • Shareable confidential space on a public cloud • Secure and protected Cyber-space	• Seamlessly integrated across departments or jurisdictions • Services available in real time from online &mobile platform • All citizen entitlements to be available on the cloud • Services digitally transformed for improving Ease of doing business • Making financial transactions electronic & cashless • Leveraging GIS for decision support systems & development	• Universal Digital Literacy • Universally accessible digital resources • All documents/ certificates to be available on cloud • Availability of digital resources / services in Indian languages • Collaborative digital platforms for participative governance • Portability of all entitlements through cloud

Pillars of Digital India: Digital India aspires to provide the much desired thrust to the nine pillars of growth areas viz. Broadband Highways, Universal Access to Mobile Connectivity, Public Internet Access Program, e-Governance: Reforming Government through Technology, e-kranti: Electronic Delivery of Services, Information for All, Electronics Manufacturing, IT for Jobs and Early Harvest Programmes as depicts in Fig. 4. Apiece of these areas is a multifaceted program in itself and crossways several Ministries and Departments [3].
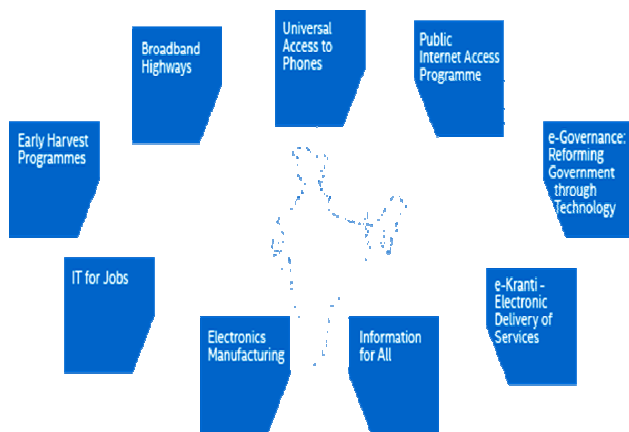
Fig.4. Nine Pillars of Digital India

- **Broadband Highways:** Setting up of nationwide optical fibre network in the entire 2.5 lakh rural areas in the country [7].
- **Universal Access to Mobile connectivity**: Ensuring mobile access in approximately 44,000 uncovered rural areas in the country.
- **Public Internet access**: To increase the coverage of common services center from 1.35 lakhs to 1.5 lakhs [8].
- **e-Governance:** Business process re-engineeering will be undertaken to improve processes and service delivery.
- **e-Kranti:**e-Kranti focuses on electronic delivery of services [9].
- **Global Information:** The focus will be on online hosting of data and proactive engagement through social media and web based platforms.
- **Electronics Manufacturing:** Focus is on set top boxes, mobile, consumer electronics, medical electronics, smart energy meters, smart cards and micro ATMs.
- **IT Training for Jobs**: The government is planning to train one crore students from small towns and villages for IT sector [11].
- **Early Harvest Programmes**: The government is planning to deploy Aadhar Enabled Biometric Attendance System in all central government offices [6].

III.   CONCLUSION

The Digital India program is just the commencement of a digital revolution, once put into practice appropriately it will unbolt assorted novel opportunities for the citizens. It is one of the extremely motivated programs by the government of India under the supervision of Hon'ble Prime Minister of India. With the participation of central governments, central cabinet ministers, and state

governments etc., this program works as a multi-ministry program. Various majestic companies Viz. Microsoft, Intel, Google and Fujitsu have agreed as a collaborator to assist in the initiative of making Digital India successful.

Digital India revolution presents the exaggerated impetus for further momentum and progress for the nation and it would also endorse inclusive growth that covers electronic services, products, devices, manufacturing and employment opportunities. India in the 21st Century must endeavor to congregate the aspirations of its citizens where government services will arrive at the doorsteps of citizens in the form of e-services and contribute towards an eternal constructive impact.

IV.   FUTURE SCOPE

Digital India will have impact to nation's development by the year 2019 in terms of providing various services viz. availability of broadband service approximately in 2.5 lakh rural areas, worldwide connectivity of cellular phone, lessen the import of IT hardware to zero percent by the year 2020, creation of internet access points approximately 4 lakh to empower the citizens digitally, accessibility of Wi-Fi facility in 2.5 lakh schools and to the entire universities, availability of public Wi-Fi hotspots for citizens. Employment opportunities for 1.7 crore trained IT,Telecom and Electronics field leads to digital inclusion.The purpose of Digital India is to project India as a leader in IT by implementing the services like e-health, e-education, e-banking, e-agriculture, e-administrator and so on.

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