

# DIGITAL INDIA- CHALLENGES AND OPPORTUNITIES

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## Abstract

*Digital India is a progressive idea of Mr. Narendra Modi's government. It is an initiative of the Indian Presidency to bring together government agencies and the Indian people. It aims to ensure that government tenders are developed to be delivered electronically to residents to reduce paperwork. It is an initiative to transform the US into a digital energy economy. The goal behind the idea is to connect rural areas with a high-speed web community and improve virtual literacy. The show weaves together a massive number of ideas and thoughts into one that is brilliant and insightful, making each of them visible as part of a greater goal. It is coordinated through the means of Deity; it is applied through the means of all authorities both in the center and in the state. E-commerce refers to a large form of online commerce involving sporting goods and offers.*

*Electronic commerce is the use of digital communication and the generation of virtual factual processes in business transactions to create, transform and redefine relationships between businesses and individuals. of the Digital Asian Nation program. It also describes the program's special opportunities for people in India.*

**Keywords:** *Digital India, Development, Challenges, Opportunities, Marketplace*

## INTRODUCTION

India's first computer was housed at the Tata Institute of Fundamental Research (TIFR). Former Prime Minister Jawaharlal Nehru named it TIFRAC (Tata Institute of Fundamental Research Automatic Calculator). On January 21, 1969, the first electronic digital computer, Vikram Sarabhai, commissioned an Indian-built computer at the Bhabha Atomic Research Center (BARC). Accelerating internet networks and enhancing digital literacy by making digital resources/services available in Indian languages. The vision of this program is inclusive growth in electronic services, products, manufacturing and job opportunities, etc.

It aims to prepare India for knowledge-based transformation and provide good governance

to citizens by engaging both central and state governments. This program is coordinated by the Department of Electronics and Information Technology (DeitY) and will have an impact on the Department of Communications. & IT, Ministry of Rural Development, Ministry of Human Resources Development, Ministry of Health, and others. The deitY would create four senior positions within the department to manage the program, says Additional Secretary, Digital India; Assistant Secretary, Infrastructure Development; joint secretary, capacity building and digital empowerment; and Joint Secretary, IT Applications in Discovered Areas and Process Redesign. It would ensure that services provided by the government are reaching every citizen electronically.

It would also create public accountability through mandatory electronic delivery of

government services. The Government of India, Bharat Broadband Network Limited (BBNL), which runs the National Fiber Optic Network project, will be the administrator of Digital India (DI) project. The program will be implemented in phases from 2014 to 2018. Today, most e-government projects are financed from the budgets of the respective ministries/departments in the federal or state governments. Individual project funding requirements for Digital India are being drafted by respective node ministries/departments but are estimated at Rs 113 billion by the government. There had been diverse research on specific factors of the initiative starting from the low cost to social and moral dimensions. Some of those researches retrieved via net searches had been reviewed here.

## THE OBJECTIVE OF THE STUDY

The paper has the following objectives:

- To Study the concept of the Digital India Programme from the current way of thinking.
- To study the opportunities in the Digital India program.
- To study the various challenges and opportunities in the Digital India Programme.

## RESEARCH METHODOLOGY

For this research paper, secondary data analysis is usually performed to gain a deep understanding of the Digital India initiative. Mainly the work is based on information retrieved from the internet through journals and research papers on the same topic

## LITERATURE REVIEW

IMF Managing Director Kristalina Georgieva said India earns the right to be called a bright spot on this dark horizon as it has been a fast-growing economy even in these difficult times. "The most important thing is, this growth will be underpinned by

structural reforms," Georgieva told reporters at a briefing when asked about her expectations for India ahead of the G20 presidency.

Prime Minister Narendra Modi addressed the United Nations World Geospatial Information Congress (UNWGIC) in Hyderabad. The five-day conference, scheduled for October 10-14, is convened by the UN Expert Committee on Global Geospatial Information Management and organized by the Department of Science and Technology. PM Modi, speaking at UNWGIC, said that two pillars, technology, and talent, are very important on India's development path. Technology has high capabilities of bringing about transformation. India is a young nation with a spirit of innovation, and the number of achievements has doubled in recent years. It needs an institutional approach from the international community to help each other in times of crisis. Global organizations like the UN can be found in every region leading the way to bring resources to the last mile. India is among the top startup hubs in the world.

The Digital India program is now in its second year of existence and several projects in the program have progressed from the planning phase to the implementation phase. The project has started to show its impact on the lives of citizens and businesses. Various schemes of the project were successfully adopted.

## VARIOUS DIGITAL INDIA SCHEME

### 1. **Aadhaar**

The Aadhaar identification platform is one of the key pillars of 'Digital India', in which each resident of us is supplied with a unique identification or Aadhaar number. The biggest biometrics primarily based identity device within the world, Aadhaar is a strategic coverage device for social and monetary inclusion, public quarter shipping reforms, handling economic budgets, boom comfort, and selling hassle-loose people-centric governance. It is specific and sturdy sufficient to do away

with the reproduction or faux identities and can be used as a basis/number one identifier to roll out numerous Government welfare schemes and programs for powerful provider shipping thereby selling transparency and suitable governance.

## 2. **Direct Benefit Transfer**

DBT changed into initiated intending to reform authorities transport device via way of means of re-engineering the present manner in welfare schemes for the less complicated and quicker float of information/budget and to make certain correct focused on of the beneficiaries, de-duplication, and discount of fraud. DBT will carry efficiency, effectiveness, transparency, and responsibility withinside the Government device and infuse the self-beliefs of citizens withinside the governance. The use of cutting-edge era and IT gear will comprehend the dream of maximum governance and minimum government.

## 3. **EBASTA**

In line with the Government's Digital India initiative, this assignment has created a framework to make faculty books on hand in virtual shape as e-books to be examined and used on pills and laptops. The primary concept is to carry diverse publishers (unfastened in addition to commercial) and faculties collectively on one platform. In addition to the portal, a back-give-up framework to facilitate the business enterprise and smooth control of such assets has been developed, alongside the web-primarily based total programs that may be mounted on pills for navigating the framework.

## 4. **ELECTRONIC DEVELOPMENT FUND (EDF)**

As a part of the 'Digital India' timetable of the Government, and to broaden the Electronics System Design and Manufacturing (ESDM) region as a way to achieve 'Net Zero Imports' via way of means 2020 and to have a take a observe India as their subsequent vacation spot to cater to the home Indian call for in addition to acting as an exports hub withinside the ESDM region. It

is with this goal that an Electronic Development Fund (EDF) is installed as a "Fund of Funds" to take part in professionally managed "Daughter Funds" which in flip will offer chance capital to businesses growing new technology withinside the vicinity of electronics, nano-electronics and Information Technology (IT).

## 5. **ESign**

Design is a web digital signature carrier that may be incorporated with carrier transport packages through an open API to facilitate an Aadhaar holder to digitally signal a document.

## 6. **GARV GRAMEEN VIDYUTIKARAN MOBILE APP**

About. The cell utility affords real-time date records of ongoing electrification procedures to all users/stakeholders and affords data approximately Government schemes and electrification records. The app also can be used for sharing inspirational memories of differently-abled, who completed fulfillment notwithstanding all odds.

## **OPPORTUNITIES**

### 1- **Faster Access To Information**

One of the maximum critical blessings of digitization is the cap potential to get admission to facts whilst wanted. Digitizing a company is funding that quick can pay for itself. one of the most advantages of digitization is that inside the company, facts will become greater accessible. If you save files digitally instead of physically, everybody with proper gets admission to can view the wanted facts. It doesn't remember whether or not your personnel is acting at the workplace or their domestic workplace. This additionally makes it masses less difficult to collaborate effectively. Data communication (inner and external) is likewise simplified. The velocity and comfort with which facts can be exchanged is a large gain of digitization.

Ex: Bharat Net- to offer the right connectivity to the internet, the Government of India has released BharatNet Scheme. Through this scheme, virtual connectivity is supplied in rural regions at low-cost prices. By studying this text, you may get all of the vital data concerning the BharatNet scheme like what's the BharatNet scheme? its objective, benefits, features, eligibility criteria, required documents, utility procedure, etc

## **2- Improved Customer Experience**

Giving employees the ability to swiftly find out applicable facts and files will assist clients to acquire the solutions they want in a well-timed way, supporting purchaser retention and conversion into dependable clients.

The maximum distinguished advertising examples of the use of digitalization were social media advertising, Google advertising, and Facebook. Other examples include Facebook/Google Analytics and different statistics analytics equipment and platforms. CMARIX, Kinnect, Web Matriks, Monolith, and Techbound innovations are some examples of digital marketing platforms.

## **3- Increased Productivity**

One of the maximum essential benefits of digitization is the growth of personnel productivity to assist companies to perform faster. Employees might also additionally genuinely look for records and pick out the favored files while they're digitized and as they should be organized. Using current strategies and a robust system, it's far viable to look for files primarily based totally on their metadata and the records contained interior them. Not simplest that, however, those digital files can be shared, exchanged, or collaborated on, growing company efficiency. This appreciably minimizes the quantity of time required to paint with records and permits the workforce to attention to greater critical activities, with the purpose to have a good effect on your business's operations.

Digital Marketing is the mixed efforts of online advertising, techniques, and approaches to acquire a particular goal. These consist of SEO (Search Engine Optimization), SMM (Social Media Marketing), SMO (Social Media Optimization), PPC (Pay-Per-Click), Email Marketing, Content Marketing, etc. These are precise offerings for pinpointed goals. There are numerous virtual advertising answers to be had that will help you acquire your targets. Digital Rhetoric, a Digital Marketing Agency in Pune, is among the pinnacle Digital Marketing offerings in India.

## **4- Lower Operational Costs**

Printing, preserving, and maintaining paper files can be high-priced for businesses. Worse, within side the occasion of a herbal disaster (fire, flood, etc.), the papers can be destroyed, ensuing within side the lack of your maximum treasured asset. Going virtual will drastically decrease the value of record protection even as additionally decreasing or getting rid of the price of printing and replacing them. A digital garage is a way much less high priced than bodily shelves and offers a higher and extra value-powerful technique of backup and recovery.

According to worldwide consultancy corporation Capgemini, 87% of groups accept as true that virtual transformation affords the possibility to advantage an aggressive gain within side the marketplace. This is a good larger possibility for SMEs who, thru using virtual can compete with large organizations.

## **5- Improved Decision Making**

When statistics are digitized, the tempo at which it's far exchanged and added to the right man or woman is incredibly quick. Giving senior control the capability to get accurate statistics while it's far wanted will permit them to make higher knowledgeable enterprise decisions, so one can ultimately assist your business enterprise to thrive. Furthermore, with the aid of using making use of complete reporting tools, those managers may also display how the agency is running at any given

time and make adjustments as wanted. The Center of Excellence for IoT has been announced as part of the Digital India Initiative to boost the IOT ecosystem by leveraging India's IT strengths and helping the country achieve leadership in the converging space of hardware and software. The center aims to create innovative applications and mastery skills. In addition, the center will help develop capable industry talent, a startup community, and an entrepreneurial ecosystem for IoT.

## **6- Improved Security**

Paper files might also additionally without difficulty fall into the incorrect hands, placing touchy records which include purchaser records, monetary reports, and so forth at risk. How regularly have you ever observed a record that became published after which left at the printer for a while earlier than being collected? What might you do if the published paper protected touchy data? Different techniques and solutions, on the alternative hand, can be used to shield virtual files and make certain that best the correct and certified personnel have to get admission to records. I strongly suggest you examine the item related for similar details. CERT-In turned into fashion intending to stabilize Indian cyberspace. CERT-In gives Incident Prevention and Response offerings in addition to Security Quality Management Services. CERT-In has been detailed below in Section 70B of the Information Technology (Amendment) Act 2008 to function the countrywide corporation to carry out the subsequent features within side the region of cyber safety:

- Collection, evaluation, and dissemination of data on cyber incidents
- Forecast and indicators of cyber safety incidents
- Emergency measures for managing cyber safety incidents
- Coordination of cyber incident reaction activities

- Issue guidelines, advisories, vulnerability notes and whitepapers regarding data safety practices, procedures, prevention, reaction and reporting of cyber incidents.

Cert-in is observing a "cyber jagrookta diwas" on 7<sup>th</sup> September 2022 to create awareness among internet users.

## **7- Higher Mobility**

If the COVID-19 pandemic has taught us anything, it's miles the significance of getting data to be had from everywhere, now no longer simply the workplace. Unfortunately, many agencies had been not able to perform for the duration of the lockdown considering that they had been nonetheless relying on paper and could not get admission to it from out of doors their companies' borders. Digital documents, whilst blended with the ideal technology, will permit your personnel to get admission to commercial enterprise data from almost any place within side the globe, letting them paintings and end commercial enterprise transactions within the occasion of destiny pandemics and lockdowns. Bharat Broadband Network Limited is a unique cause automobile set-up below the Companies Act with the aid of using the Government of India with a certified capital of Rs. one thousand cr. It has been thought necessary to establish the National Optical Fiber Network (NOFN) in India. A general of around 2,50,000 Gram Panchayats unfold over 6, six hundred Blocks and 641 Districts are to be protected with the aid of using laying incremental fiber.

## **8- Automation of Business Processes**

Any employer that desires to run extra efficiently and easily needs to automate its enterprise processes. Information needs to be digitized earlier than any digitalization undertaking can begin! By ways the maximum crucial benefit of digitization is the possibility to start automating guide enterprise processes, permitting organizations to acquire their dreams within side the maximum green way possible.

## **9- Future prospect**

Finance Minister Nirmala Sitharaman said on Thursday that India's digital stack, which includes the open-source network for various digital public goods and locally created digital applications, is available to all countries that need such technology. Citing the development of the CoWIN app, which the Indian government has created to streamline Covid-19 vaccination data and other information related to the pandemic, Sitharaman said it is now available to any country that wishes to use it. Speaking at the Johns Hopkins School of Advanced International Studies (SAIS) in Washington DC, he also highlighted the government's Open Network for Digital Commerce (ONDC). Additionally, he said the Unified Payment Interface (UPI), which has simplified payment systems across the country, is now available for multiple countries

## CHALLENGES

Challenges are encountered in every sector, from policymaking changing the workflow to changing government officers' mentality. A few of them have been listed below:

### 1. High Level of Digital Illiteracy

Digital illiteracy is rampant in most towns and villages in India. Cities have embraced digitization, but they are limited to a certain extent. Full digitization consists of daily cashless transactions through internet services to obtain government certificates. It brings changes in taxation and a change in public mentality. So, it's a team effort that involves citizen responsibility and government support for the new system. The Saksharta Abhiyan Digital Plan or National Digital Literacy Mission (NDLM) was formulated to provide IT training to 52.5,000 people including Anganwadi, ASHA workers, and licensed grocers in every state/UT across the country. The initiative aims to enable citizens without IT skills to acquire IT skills to enable their active and effective participation in the process of democratic development, and also to improve their livelihood.

### 2. Connectivity to Remote Areas

The issue of connectivity is complex as each state has different laws governing its implementation. It is a gigantic task to connect with every village, town, and city. In addition, it is a challenge for the central authorities to create a database. which can store such large amounts of information. Bharat Broadband Network Limited is a special purpose company incorporated under the Companies Act by the Government of India with an authorized capital of Rs. 1000 cr. It was commissioned to build the National Fiber Optic Network (NOFN) in India. A total of around 2,50,000 Gram Panchayats, spread over 6,600 blocks and 641 districts, will be covered by the phased fiber optic installation.

### 3. Compatibility with Central State Databases

Diversification not only affects religion but also language. Each state has different internet protocols as each state is different. Therefore, the compatibility of the software with the center is a crucial point. The information must be carefully protected. Open Government Data Platform (OGD) India - Data.

gov. in: is a platform supporting the Indian government's open data initiative. The portal is intended to be used by the Government of India ministries/departments and their organizations to publish datasets, documents, services, tools, and applications collected by them for public use. It aims to increase the transparency of government work and open avenues for many more innovative uses of government data to bring a different perspective.

### 4. Cyber Crime

There is a cyber threat everywhere in the world and digital India will be no exception. Therefore, we need a strong cybercrime team to maintain the database and protect it 24/7. Malware Analysis Center) is part of the Government of India's Digital India initiative to create safer cyber space by detecting botnet infections in India and notifying, cleaning, and protecting end-user systems to prevent further infections. It complies with

configured goals of the “National Cyber Security Policy” which provides for the creation of a secure cyber ecosystem in the country. This center works in close coordination and cooperation with ISPs and product/antivirus companies.

#### 5. **Interdepartmental Coordination for Digital India**

Within the government, the responsible authorities have to integrate different departments. Integration has both a technical and an entrepreneurial problem. In a sense, the selfishness of our government officials and service personnel is an obstacle to change. Also, the government will do away with the middleman policy due to digital India. Therefore, there will be immediate resistance from the workforce.

The CSC program is one of the mission-mode projects under the Digital India program. CSCs are the entry points for the delivery of basic public services, social welfare systems, health, financial, educational, and agricultural services, as well as a variety of B2C services to citizens in rural and remote areas of the country. It is a pan-Indian network that recognizes the country's regional, geographic, linguistic, and cultural diversity and fulfills the government's mandate of a socially, financially, and digitally inclusive

#### 6. **Exchange of Information**

The information stored should also be used by other government agencies. For example, policing, surveillance, and other security problems can be efficiently solved with digital India, but coordinating them is a gigantic task. It's not just a technological problem. but it also addresses the issue of privacy and security. To counteract this alarming situation, the Indian government has set out to increase cyber security measures under the Digital India program, starting with Rs. An 800-crore facility that will help people to check their computer system and get rid of viruses and other malware. The program intends to develop the ability to let you know that it can not only track malware on the computer system but also remove this infection. After a year of work, the National Cyber Security and Coordination Center (NCSC) will

analyze Internet traffic. Scanned and integrated data from multiple gateway routers in one central location. It will facilitate the real-time assessment of cyber security threats and create actionable reports for multiple agencies.

An interagency body under the Department of Electronics and IT, the NCSC includes the National Security Council Secretariat, the Intelligence Bureau, the Research and Analysis Wing (RAW), the Indian Computer Emergency Response Team (CERT -In), the National Technical Research Organization (NTRO), the three-armed forces and the Ministry of Telecommunications. It is intended to summarize the work carried out by CERT-In and to warn in the event of a cyber attack.

## CONCLUSION

The program of digital India at present has spent several years of life and various tasks at a low level, which this device has now taken from the design stage to the execution stage. Digitization has begun to show its impact on the lives of people and businesses. Many schemes of the project were successfully adopted. Providers like DigiLocker are now used by four million buyers. The MyGov software program provides a platform for more than a million customers employ citizens to interact with the government. India now represents the second-largest internet customer base in the world. This presents a good opportunity to reshape people's lives through digital technology. time. The digital India program aims to benefit citizens in the years to come by creating job opportunities, improving the speed and quality of supplier delivery, and improving the social and financial bottom line. Businesses can benefit from increased productivity, simple and sophisticated industrial organization, and a boost in innovation and investment. Introducing the next-generation era in Digital India embeds best-in-class telepresence and service delivery, improving the social and economic bottom line. Companies will benefit from increased know-how productivity, advanced facilities for industrial organization, and a surge in innovation and investment.

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