



DIGITAL INCLUSION OF RURAL INDIA

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ABSTRACT

It is a widely acknowledged truth that numerous breakthroughs and technological advancements have led to the creation of digital India. These have a positive impact on people's lives and will better empower society. The 'Digital India' program, spearheaded by the esteemed Prime Minister, Mr. Narendra Modi, is poised to usher in novel developments across all domains and inspire inventive ventures for the next generation. The idea is to create a system that is transparent, responsive, and participatory. The process of transforming analog materials into digital files through scanning or other means is known as digitalization. It is the driving force behind the current era of change. It is significant to our day-to-day existence. The writers of this piece talk about Digital India and the initiatives being taken to digitalize rural India.

INTRODUCTION

The government initiative known as "Digital India" envisions a seamless, effective internet technology network that involves the public in the advancement of the nation. Broadband highways, mobile connection, public internet information availability, Wi-Fi access, and other features are all part of Digital India. Another ambitious government effort is Made in India. It remains to be seen how creatively global behemoths like Facebook and Google can contribute to the Digital India program as it is.

One of the things driving this new era of change is digitalization. It is important to our day-to-day existence. It's clear that tasks are becoming faster and more accurate as a result of digitization. With the introduction of computers five decades ago, the process known as "digitalization" got underway. These days, digitalization plays a part in our daily lives. For example, it affects how we interact and conduct business in numerous domains, including manufacturing and communication. Digitalization is also growing extremely quickly. It is critical to comprehend and value the ways in which these factors are influencing contemporary business. Our period can be referred to as the "digital era."

OBJECTIVES OF THE STUDY

1. To research the idea of digitalization in rural India.
2. To talk about the different Digital India initiatives that the government has introduced.
3. To determine the degree to which this program has improved the lot of rural residents.
4. To list the main challenges that rural residents are facing as they implement Digital India.

DIGITALIZATION OF INDIAN RURALS

India currently has a population of around 1.21 billion people,

69% of whom live in rural areas. The use of mobile phones is contributing significantly to the daily increase in internet penetration. Research carried out by IAMAI reveals some intriguing trends. Eighty percent of people who accessed the internet did so for communication, seventy percent for leisure, sixty percent for online services, sixty-five percent for e-commerce, and sixty percent for social networking. By June 2024, there will likely be over 85 million Internet users in rural India, making it the second largest Internet user market in the world.

Several fascinating stories originate from "NewDigm Healthcare Technologies" Rural Health Connect initiative, which has taken the initiative to make use of the sizable pool of "Village Health Workers" (VHWs) who offer a wide range of health care support to rural India's last mile areas. establishing a mobile platform to gather, evaluate, provide medical guidance, and suggest potential courses of action to the VHW. The outcomes have extensive documentation. In a field study run by the "National Rural Health Mission," Tamil Nadu saw a 20% decrease in outpatient costs, including medication costs, 95% of pregnancies documented and tracked, and 75% of VHWs reporting an improvement in diagnostic efficiency and operational simplicity. The target market penetration will rise dramatically over the next three years, affecting rural and hospital communities alike.

Even though India is becoming known throughout the world as a technological and innovative powerhouse, rural areas continue to face significant challenges related to the digital divide. The complex effects of the digital divide on rural Indian communities impede social inclusion, healthcare, education, and employment prospects in addition to limiting their access to information and services.

Numerous government and corporate sector-led projects are launched with the goal of empowering rural populations with



digital access and literacy. Let us examine the ways in which these initiatives for digital inclusion are promoting digitization and reducing the digital divide in rural India.

INITIATIVES LED BY THE GOVERNMENT

The Indian government has launched a number of initiatives to guarantee that people living in rural areas have access to digital resources because it understands how important it is to close the digital divide in these places.

1. BharatNet: Filling the Gap in Connectivity

The Indian government's main project, BharatNet, seeks to provide high-speed broadband internet access to even the most rural areas of the nation. Known as one of the largest rural telecom projects globally, its goal is to build a strong optical fiber network that will provide broadband connectivity to more than 250,000 rural Indian Gram Panchayats, or local administrative entities. BharatNet aims to enable mobile operators, Internet service providers (ISPs), cable TV operators, and content producers to deliver a range of services, including e-health, e-education, and e-governance in rural areas, by supplying last-mile connection.

2. Digital Services at Your Doorstep with Common Service Centers (CSCs)

A key component of the National e-Governance Plan (NeGP), which was authorized by the government in September 2006, is the Common Service Center (CSC). In rural and isolated places, these physical establishments act as access points for digital services.

These centers provide many services, such as online form filing, printing of official documents, utility bill payment, and internet browsing. In rural India, there were 4,13,999 operational CSCs as of May 2023.

3. Enabling Digital Access and Literacy through the Digital India Campaign

The goal of the July 2015 launch of the Digital India Campaign is to make India a knowledge economy and society enabled by digital means. Three main areas are the focus of this campaign: digital services, digital infrastructure, and digital literacy.

A number of projects have been launched by the government as part of the Digital India effort. Among them are BHIM (a UPI payment app), E-Hospitals (a platform that aims to connect patients, hospitals, and doctors), DigiLockers (which gives citizens access to their authentic digital documents), and E-Pathshala (which has textbooks, audio, video, periodicals, and a variety of educational materials).

4. Mastering Digital Skills through Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA)

The PMGDISHA program, which was introduced as part of the Digital India Campaign, aims to teach rural residents digital literacy skills. By covering one member from each eligible home, it aims to reach around 40% of rural households by bringing six crore individuals in rural areas across States and Union Territories

digitally literate.

More than 6.15 crore candidates have been registered, 5.24 crore have received training, and 3.89 crore have received the necessary certification under the PMGDISHA Scheme, according to a government press release dated July 20, 2022. Also, the program has approved more than 4.13 lakh common service centers.

NON-GOVERNMENTAL ORGANIZATIONS (NGOS) AND THEIR ENGAGEMENT WITH THE PRIVATE SECTOR

The advancement of digital inclusion in rural India is largely dependent on government programs, although non-governmental organizations (NGOs) and private sector entities have also demonstrated significant impact through their coordinated efforts. These players effectively support governmental initiatives by bringing innovation, regional strategies, and corporate social responsibility (CSR) to the fore.

1. NGOs' Function in Digital Inclusion at the Local Level

NGOs frequently function at the local level, giving them a deep awareness of the particular difficulties that rural people experience. They organize awareness campaigns, training sessions, and workshops that enable rural communities to confidently navigate the digital world.

2. CSR Efforts by the Private Sector for Digital Empowerment

A number of private corporations have launched corporate social responsibility programs to support digital infrastructure and education in rural areas, realizing their role in social development. Through Project Dhruv, a Mensa India project, the smartphone manufacturer OPPO India provided digital literacy tools to assist first-generation learners' academic performance last year. 45 OPPO pads, styli, and internet dongles were given to kids at a Gurgaon school as part of the association. Two remote Karnataka schools now have computer laboratories thanks to a project by Atkins India called the Digital Learning Enabling Programme (DLEP). Global companies' contributions only serve to amplify the effects of digital empowerment. For example, we partnered with the Digital Empowerment Foundation (DEF), a local NGO, to establish a digital classroom in a town in Haryana through the manufacturing company Wartsila, which is headquartered in Finland.

3. Joint Ventures for Durable Effect

The pooling of resources, knowledge, and networks made possible by collaborations and partnerships between NGOs, businesses, and government agencies results in more successful and long-lasting projects that promote comprehensive digital inclusion. Their participation guarantees that digital literacy and access are community-driven initiatives as well as top-down strategies.

For example, to address the digital divide, OctaFX, an international broker, partnered with Community Action for Rural Development (CARD) in August 2023 to establish a computer lab



at a rural school in Tamil Nadu. These modest yet important actions frequently spark widespread attention and involvement.

IMPACT OF RURAL INDIA'S DIGITALIZATION

The digitalization of India's rural areas has had a significant economic impact. As a journalist named Kane J. Shore once said, "What a difference five years can make." During that period, a project to introduce the Information Age to rural villages in southern India has provided high-speed wireless phone and Internet connectivity to 50,000 "information shop" users across twelve communities. Additionally, it has enhanced more conventional Indian communication channels like neighborhood newspapers and public speaker networks.

1. Increase in Employment prospects: The main advantage of digitalization for rural areas is a rise in employment prospects. A significant number of small business owners are employed in the installation of Internet kiosks in rural locations.
2. Improvement in standard of living: The second advantage is the rise in people's level of living brought about by an increase in income. These amenities are helping a great deal of individuals. They are learning about new farming techniques, plant diseases, and other topics by using the internet and other resources offered by various schemes such as Lifelines India. Additionally, they are receiving information on numerous farm animal ailments and how to keep them healthy, which boosts productivity.
3. Reduction of Risk and Uncertainty: By accessing online market information, the rural community is lowering risk and uncertainty by fully utilizing the strategies at its disposal. Before going out to sea, fishermen are monitoring the weather. Additionally, they have cell phones with them so that they may call authorities or family in the event of an emergency and receive assistance.
4. Raising e-literacy in rural areas: A significant portion of young people in rural areas are receiving computer, Microsoft Office, and internet training. Online Youth in rural areas are receiving instruction and training from kiosks. Village knowledge centers are used to train a huge number of rural kids under various initiatives. Growing awareness of Spoken English: Since English is the primary language needed to access the Internet, rural residents are now cognizant of the significance of spoken English.

DIFFICULTIES WITH DIGITALIZATION

1. The digitization process requires a large amount of capital; this money could be lost or put at danger due to a bad record selection. that it's possible to underestimate the expenses of digitization.
2. How people are aware of new technology: In rural areas of India, where many people lack literacy and are unaware of technology, it can be challenging to

introduce and get acceptance of new technology.

3. The digital equipment has a high initial cost. This includes a training program to introduce technology to the public, and the equipment's ongoing costs are also costly.
4. Nearly all of the equipment required must be purchased from outside India because it is a developing nation incapable of creating new technology, hence the equipment is imported from other nations.
5. Overcoming Linguistic Barriers and Creating Localized Material. India is known for its linguistic diversity, and removing linguistic obstacles is essential to full digital inclusion. It is ensured that rural communities can access and comprehend information, services, and educational resources by producing customized digital content in regional languages. Enhancing digital access and engagement can greatly benefit from efforts in this regard, such as localizing applications and translating web content.
6. Emerging Technologies' Potential for Digital Inclusion. There are many exciting opportunities to advance digital inclusion with emerging technology. For example, educational service providers can provide tailored learning that meets each student's unique learning needs by utilizing AI. Novel techniques, such as utilizing low-orbit satellites to deliver internet access to isolated regions, are also being

CONCLUSION

Prime Minister Narendra Modi launched the Skill India Mission on Wednesday in an attempt to build a sizable pool of trained workers needed to fuel the "Make in India" drive. However, according to S. Ramodarai, Chairman of the National Skill Development Corporation (NSDC), "each feeds into the other to make it a productive nation and create the 21st century jobs rather than the 19th century jobs," the Make in India, Digital India, and the Skill India Mission will need to work together. Our goal is to realize the vision of "Digital India," in which all Indians have access to digital resources and are empowered by technology. Government agencies can become digital businesses with the help of Digitize India Platform, which also provides incentives for Digital Contributors to complete easy data entry tasks.

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