



## **THE ROLE OF DIGITALISATION IN CONTEMPORARY INDIA: ENHANCING THE INDIAN KNOWLEDGE SYSTEM**

**Ms.Toko Jirniya**

Hod, Department of History, Arunodaya University, Itanagar, Arunachal Pradesh, India

Email: [Tokoijirniya@gmail.com](mailto:Tokoijirniya@gmail.com)

**ABSTRACT:** In present times, digitalisation has become a force that can change a nation's rich intellect. This article examines how digitalisation can improve education, research and culture preservations. In terms of education, digital platforms such as the National Digital Library of India and SWAYAM have democratised access to quality learning resources beyond geographical boundaries. As far as research is concerned, global collaboration has been facilitated thanks to digital tools which also streamlined methodologies whereas innovation has been supported by various government initiatives like Digital India and E- Services platforms. Digitalisation helps in safeguarding Indian cultures through online platforms and digital archives. Nonetheless, significant challenges remain such as, unequal digital literacy and infrastructural gaps. These issues can only be addressed through focused educational programs, better infrastructure and inclusive e-platforms.

Ultimately; this transformation makes it easier to transfer the technical knowledge inherent in the Indian intellectual heritage into today's world even more effectively and widespread than before.

Digitalisation has become one of the vital factors in influencing various spheres of modern society including; Arts, Finance, Education, Governance and many more.

**KEYWORDS:** Digitilisation, E-platforms, E-services, SWAYAM, rural-urban gap, digital transformation, information access

### **1. INTRODUCTION:**

In the 21st century, digitalisation has emerged as a powerful force shaping nations, economies, and societies. India, with its vast population and diverse socio-economic fabric, has embraced digital transformation as a means to empower its citizens and build a knowledge-based society. The launch of the Digital India initiative in 2015 marked a turning point, aiming to provide digital infrastructure, digital services, and digital literacy to all. With increased internet penetration, mobile usage, and government support, digital platforms have become key enablers of information exchange, learning, and innovation across various sectors.

This paper seeks to examine how digitalisation is influencing the creation and dissemination of knowledge in India. It highlights how digital tools are making education more accessible, improving governance through transparency, and enabling individuals to contribute to and benefit from the digital economy. At the same time, it critically analyses the limitations such as unequal access, lack of digital literacy, and infrastructural gaps that hinder the inclusive growth of digital knowledge. Understanding these dynamics is essential to harness the full potential of digitalisation in building an informed, connected, and empowered India.

#### **1.1 Digitalisation in the 21<sup>st</sup> Century**

The 21<sup>st</sup> century has been marked by rapid technological advancements, with digitalisation becoming one of the most defining features of modern life. It refers to the integration of digital technologies into everyday activities, transforming how individuals, businesses, and governments operate. From communication and education to healthcare and commerce, digital tools have revolutionised access to information, streamlined processes, and improved efficiency. The global shift towards digital platforms has not only reshaped economies but also created new opportunities for knowledge sharing and innovation. In the context of developing countries like India, digitalisation presents a powerful means to bridge socio-economic gaps and empower citizens through enhanced access to services and information.

#### **1.2 Digital India's Vision and Launch**

Launched in 2015 by the Government of India, the Digital India initiative aimed to transform the country into a digitally empowered society and knowledge economy. Its core vision revolves around three key areas: providing digital infrastructure as a utility to every citizen, delivering governance and services on demand, and promoting digital literacy. The initiative sought to bridge the digital divide between urban and rural India by enhancing internet connectivity, promoting e-governance, and enabling access to digital resources. With programs like BharatNet, Common Service Centres (CSCs), and DigiLocker, the initiative laid the groundwork for a more inclusive and technology-driven India.



### **1.3 Growth of Digital Infrastructure and Accessibility**

India has witnessed significant growth in digital infrastructure over the past decade. The expansion of broadband networks, mobile internet penetration, and availability of affordable smartphones have contributed to greater access to digital tools and platforms. Rural areas, which once faced challenges in connectivity, are increasingly being brought online through fiber-optic networks and public Wi-Fi initiatives. Government schemes and private sector partnerships have also played a vital role in enhancing accessibility. Today, millions of Indians use digital services for education, banking, telemedicine, and employment, reflecting the country's ongoing transition toward a more connected and inclusive digital ecosystem.

### **1.4 Digital Platforms as Knowledge Enablers**

Digital platforms have become powerful tools for knowledge creation, dissemination, and collaboration in India. Online education portals such as SWAYAM, National Digital Library of India (NDLI), and ePathshala have made high-quality educational resources accessible to students across the country, regardless of geographical or economic barriers. Similarly, platforms like YouTube, Coursera, and Khan Academy offer flexible, self-paced learning opportunities that empower individuals to gain new skills and knowledge. In the realm of governance, platforms like MyGov and UMANG enable citizens to access information and participate in decision-making processes. These digital tools not only democratize knowledge but also encourage lifelong learning, innovation, and skill development, ultimately contributing to a more informed and empowered population.

### **1.5 Challenges to Inclusive Digital Growth**

Despite the rapid progress in digitalisation, several challenges hinder truly inclusive digital growth in India. A major issue is the persistent digital divide between urban and rural areas, as well as among different socio-economic groups. Limited internet connectivity, lack of access to affordable digital devices, and low levels of digital literacy continue to exclude a significant portion of the population from benefiting fully. Moreover, language barriers and content availability in regional languages remain obstacles in reaching diverse user groups. Concerns related to data privacy, cyber security, and misinformation also pose serious risks. These challenges highlight the need for more inclusive policies, targeted investments, and grassroots digital literacy programs to ensure that the benefits of digitalisation are equitably distributed across all sections of society.

## **2. OBJECTIVES OF THE STUDY**

1. To analyze the impact of digitalisation on knowledge creation, access, and dissemination in India.
2. To examine the role of key government initiatives, such as Digital India, in promoting digital empowerment.
3. To explore how digital platforms contribute to education, governance, and skill development across urban and rural areas.
4. To identify the major challenges and limitations hindering inclusive digital growth in India.

## **3. RESEARCH METHODOLOGY**

This study adopts a descriptive research design to analyze the impact of digitalization on knowledge creation, access, and dissemination in India. Secondary data was used to construct four key tables and visual representations, reflecting trends and insights from both urban and rural areas. Table 4.1 examines the growth of internet access from 2018 to 2022, highlighting disparities between urban and rural regions, which directly influence knowledge creation. Table 4.2 assesses the effectiveness of the Digital India initiative by measuring improvements in digital literacy and usage of e-governance services from 2016 to 2020. Table 4.3 explores the reach of digital education and skill development platforms like SWAYAM, Diksha, eSkill India, and PMGDISHA, emphasizing the urban-rural divide in user distribution. Lastly, Table 4.4 identifies key challenges such as infrastructure, digital literacy, affordability, and language barriers, which affect inclusive digital growth. Data was organized and analyzed using Excel and presented in the form of line and bar charts to enhance interpretability. This methodological approach provides a holistic view of how digital tools and government interventions are shaping India's digital landscape.

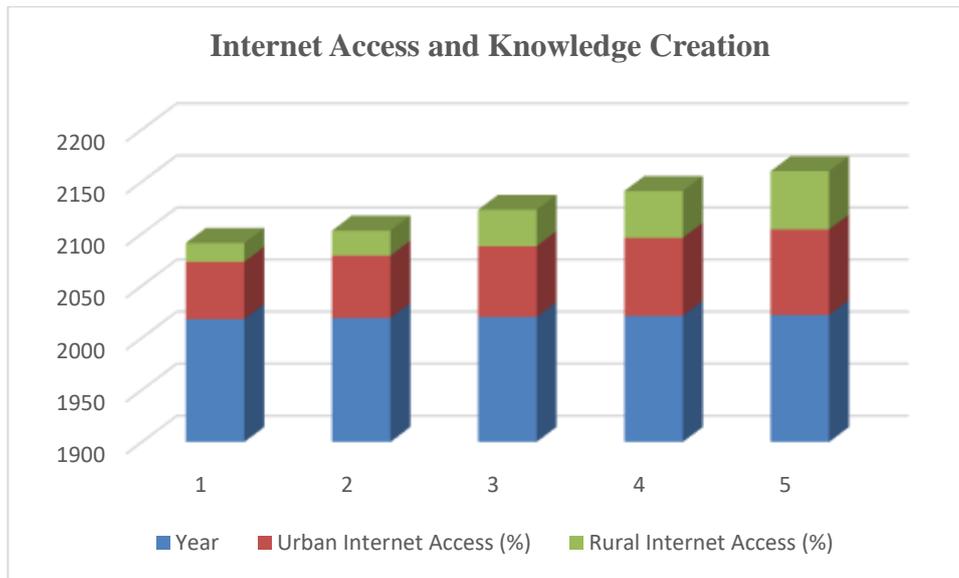
## **4. DATA ANALYSIS**

The analysis of the collected data highlights key patterns in India's journey toward digital empowerment. From 2018 to 2022, there has been a consistent increase in internet access across both urban and rural regions, with urban usage rising from 55% to 82% and rural access improving from 18% to 56%. This upward trend signifies a narrowing digital divide, although rural areas still require targeted efforts for complete inclusion. In terms of digital empowerment, the Digital India initiative appears to have had a positive impact, as digital literacy rose from 28% in 2016 to 62% in 2020, accompanied by a surge in the use of e-governance services from 120 million to 310 million users. This suggests increased public participation and accessibility to digital public services. Educational and skill development platforms such as SWAYAM, Diksha, eSkill India, and PMGDISHA have seen growing user bases, with Diksha leading at 20.3 million users. However, there remains a noticeable urban-rural usage gap, reflecting

disparities in access and digital readiness. Lastly, the study identifies several challenges hindering inclusive digital growth, including limited digital literacy, inadequate infrastructure, affordability issues, and language barriers—particularly more pronounced in rural areas. These findings underscore the need for more inclusive policies and infrastructural investments to ensure equitable digital participation across the country.

**Table 4.1: Internet Access and Knowledge Creation**

Year	Urban Internet Access (%)	Rural Internet Access (%)
2018	55	18
2019	60	24
2020	68	35
2021	75	45
2022	82	56

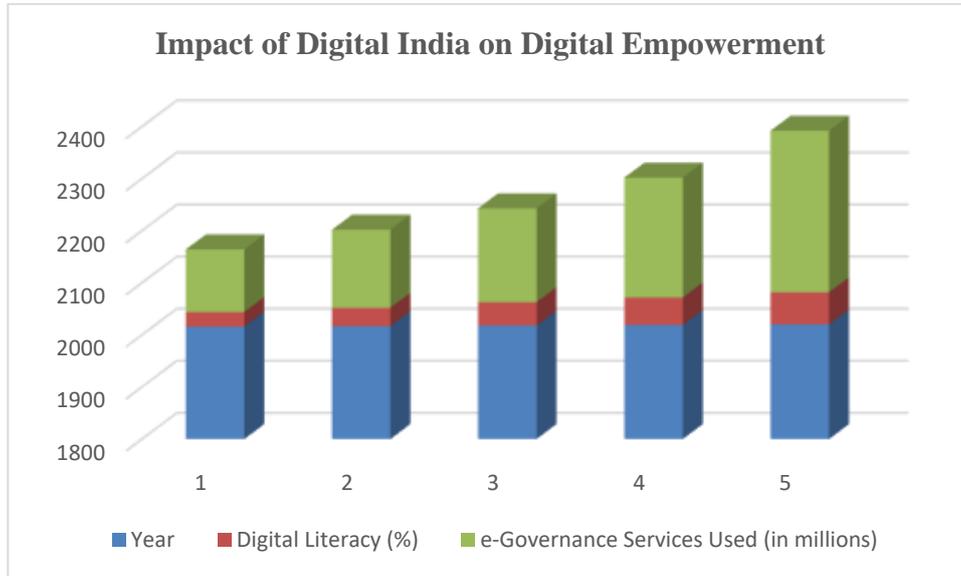


**Figure 4.1: Internet Access and Knowledge Creation**

The table presents the growth of internet access in urban and rural India from 2018 to 2022. Urban internet access steadily increased from 55% in 2018 to 82% in 2022, showing strong digital adoption in cities. Meanwhile, rural access also improved significantly, rising from 18% to 56% during the same period. Although the gap between urban and rural areas is narrowing, rural regions still lag behind, highlighting the need for continued efforts to achieve equitable digital inclusion across the country.

**Table 4.2: Impact of Digital India on Digital Empowerment**

Year	Digital Literacy (%)	e-Governance Services Used (in millions)
2016	28	120
2017	35	150
2018	45	180
2019	53	230
2020	62	310

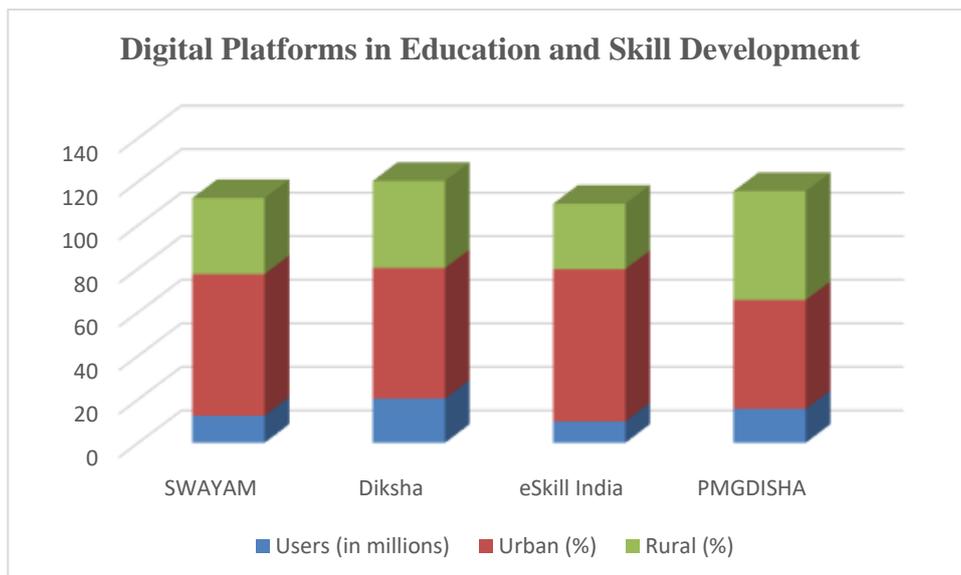


**Figure 4.2: Impact of Digital India on Digital Empowerment**

This table illustrates the progress of digital empowerment in India from 2016 to 2020. Digital literacy rates improved significantly, rising from 28% in 2016 to 62% in 2020. Alongside this, the use of e-Governance services also grew from 120 million users to 310 million. This parallel growth indicates the positive impact of initiatives like Digital India in increasing citizens' digital skills and their active participation in accessing government services online.

**Table 4.3: Digital Platforms in Education and Skill Development**

Platform	Users (in millions)	Urban (%)	Rural (%)
SWAYAM	12.5	65	35
Diksha	20.3	60	40
eSkill India	9.8	70	30
PMGDISHA	15.6	50	50

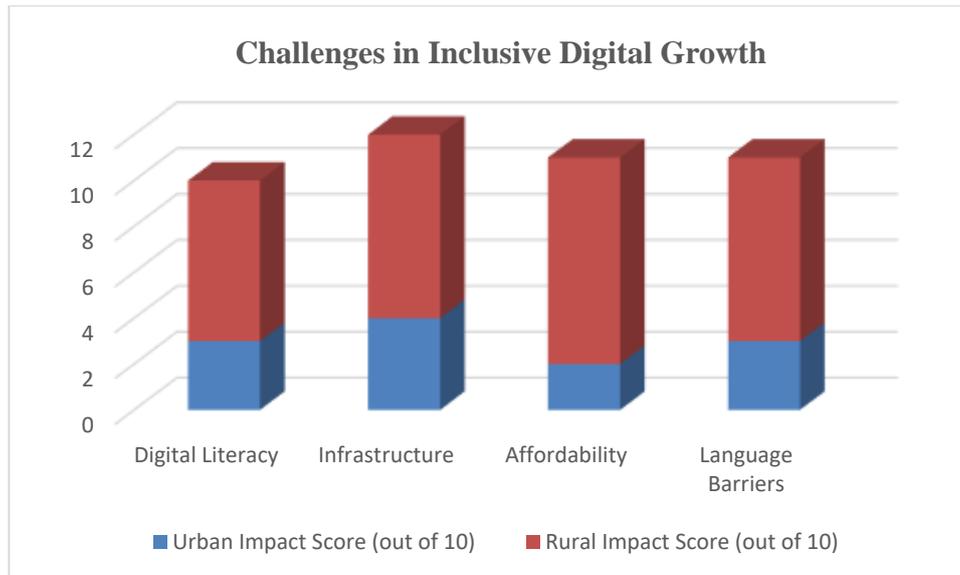


**Figure 4.3: Digital Platforms in Education and Skill Development**

This table highlights the usage of key digital platforms for education and skill development in India. Diksha has the highest user base at 20.3 million, followed by PMGDISHA with 15.6 million users. SWAYAM and eSkill India have 12.5 million and 9.8 million users respectively. Urban participation is higher on platforms like eSkill India (70%) and SWAYAM (65%), while PMGDISHA stands out with an equal share of users from both urban and rural areas (50% each), reflecting its targeted outreach to bridge the digital divide in rural regions.

**Table 4.4: Challenges in Inclusive Digital Growth**

Challenge	Urban Impact Score (out of 10)	Rural Impact Score (out of 10)
Digital Literacy	3	7
Infrastructure	4	8
Affordability	2	9
Language Barriers	3	8



**Figure 4.4: Challenges in Inclusive Digital Growth**

This table outlines key challenges affecting inclusive digital growth in India, with a comparison between urban and rural impact scores. Rural areas face significantly higher barriers, particularly in affordability (score of 9) and infrastructure (score of 8), indicating limited access to affordable internet and reliable connectivity. Digital literacy and language barriers also score higher in rural regions (7 and 8 respectively), suggesting the need for targeted educational initiatives and regional language support. In contrast, urban areas report lower impact scores across all challenges, reflecting better access and readiness for digital adoption.

## CONCLUSION

In conclusion, the data underscores the transformative impact of digitalization on knowledge creation, access, and dissemination in India. Government-led initiatives such as Digital India have significantly boosted digital literacy and the use of e-governance services, reflecting progress toward digital empowerment. Educational and skill development platforms have expanded their reach, contributing to capacity building across sectors. However, the persistent urban-rural divide in internet access and platform usage reveals that digital growth is not yet fully inclusive. Challenges such as limited infrastructure, affordability issues, low digital literacy, and linguistic barriers continue to affect rural populations more severely. Addressing these limitations through targeted policies, infrastructure investment, and localized digital training programs will be crucial to achieving truly inclusive and sustainable digital development in India.

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