

Bridging the Digital Divide

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Technology is one of the principal factors and the most effective tool for social change and advancement in today's world. The term "digital gap" has received significant attention in the last ten years, and a wide range of public discussion over its potential economic, social, and political implications has been generated. The most effective forces that may propel any developing country towards development and prosperity are information and communication technologies. The young workforce can acquire the upgraded skills necessary to engage in more meaningful work. In so doing, we can bridge the digital divide, prepare the under-skilled for the workforce of the future, and ensure that everyone has the opportunity to prosper. India essentially requires a public institution structure that makes use of the advantages offered by digital technology. India needs a system of digital education that integrates the use of technology into all facets of daily life and is contextually appropriate. Last-mile connectivity is crucial for schooling in rural India, where 2G speed is still a problem. So a paradigm shift in strategic thinking, law, and regulation is necessary to bring in the digital revolution which will create a digitally integrated ecosystem in rural areas with a community wireless network, with facets for leapfrogging for economic development.

India is one of the most populated, diversified, and large countries in terms of its landscape. Implementing e-governance to empower its population and promote general economic growth, especially in rural areas, provides a significant challenge. The integration of technology-enabled communication and data-driven governance are two significant advantages of e-government in India. The internet and mobile technology have made it possible to rapidly transfer large volumes of data, which is the foundation of efficient governance. The use of e-governance increases the transparency of all operational processes. Digital inequality has been a significant concern in contemporary societies. These variances are a result of differential levels of access to, actual utilisation of, and efficiency in the application of digital resources. Digital resources, especially cutting-edge technology like business analytics, big data, and artificial intelligence, are crucial for communities to make the transition to sustainability. Digital inequality needs to be decreased for digitalised societies to be long-lasting. All

forms of digital inequity are collectively referred to as "digital disparities." Digital gaps are still a worrying trend. Globally, three billion people lack Internet connectivity, with those in developing and least-developed countries more likely to be without it than those in industrialised countries. A nation must enable everyone to participate in the global digital economy and eliminate technological barriers in order to significantly benefit from it. The issue of bridging the



digital gap calls for technological, infrastructure, and social-economic solutions that address accessibility, affordability, and digital literacy. Existing technology can be used to create solutions that offer high-quality, dependable, and secure internet connection, enabling unrestricted participation in the digital economy.

Along with financial, gender, and ethnic disparities, there are growing gaps between rural and urban areas, as well as gaps for those with impairments. Poor local infrastructure can make the Internet slow and expensive in locations with access, thus placing it out of many people's grasp. In contrast, Internet outages can leave whole nations in the dark. The digital world has grown and developed primarily as a result of technological change; pillars of the information society now include e-learning, e-libraries, e-health, and e-governance. The availability of information is not universal, and there has always been a gap between those individuals and groups who can effectively use IT and those who cannot, creating a digital divide that is of the utmost concern to governments in developing nations.

Building Infrastructure to Overcome the Digital Divide

The potential for internet technology to revolutionise civilisation calls for action. In order to bridge the digital gap and provide people with inexpensive, all-inclusive access to information, nations must prioritise the development of their communications and IT infrastructure. There remains a lot to be done, particularly in rural and distant places, even though the IT infrastructure and notably the usage of IT have improved. Technologies related to the internet have the potential to alter the social environment. Access to internet knowledge is essential for learning and human development. By lowering prices, boosting efficiency, and raising labour productivity, the internet may help the economy. The internet could be an important instrument in aiding India to reach its goals by preserving stability, boosting viability for the future, and taking accountability. However, the evidence suggests that the advantages of internet technologies are not equally distributed and that differences between and within nations are widening. Those who are brighter, more connected, and more skilled have disproportionately profited from the internet revolution. Internet connectivity at slower speeds costs more for subscribers in underdeveloped nations. Some countries' economic

development has been hampered by sector-specific levies and tariffs. There is a demand suppression effect brought on by the inability to host or provide material locally due to slow rates and high content costs. To convince potential internet users of the value of the technology, local language materials, and culturally appropriate services are needed. A lot of people, particularly women, claim they don't use the internet because they lack the requisite skills.

Achieving an Affordable, Inclusive Internet for All

The crucial internet access infrastructure has been the focus of policies during the last ten years. While there is still much work to be done, there have been notable successes. Currently, a mobile internet signal may be found within range of 70 percent of the world's population (Internet Society 2016). To help establish an inclusive and inexpensive internet that increases prospects for innovation, empowerment, and development, policymakers urgently need to broaden their horizons. The following parameters are significant in the way of achieving an affordable, inclusive internet for all.

- **Importance of Infrastructure-** In developing nations, mobile access is crucial to inclusiveness and creativity. Governments and the business sector must collaborate to encourage network sharing and the installation of fiber optic cables to construct other types of infrastructure, such as roads and power lines. To facilitate access, promote innovation, and advance development, governments and regulators must create rules that stimulate competition and boost network investment. To develop and test a full-scale design, installation, and services package for a turnkey broadband network, infrastructure has to be highly developed. Access to public broadband is just the beginning of building a digitally developed country that closes technical divides between citizens and attracts new businesses and development prospects.
- **Pricing-** The facilitation of inexpensive and widespread Internet access at a fair price is the responsibility of policymakers. Eventually, governments can encourage a commercial and regulatory environment that is friendly to digital technology for the private sector. This might enable finance and expedite infrastructure development. Economic development is

facilitated by accessible broadband connectivity. 40 percent of Chinese e-commerce sales unlock incremental consumption rather than replacing offline transactions (McKinsey Global Institute 2013b). However, just 15 percent of people worldwide can afford to use broadband internet (World Bank 2016). Lack of affordability can disproportionately negatively impact women because they typically earn less money and have less influence over their purchasing. Mobile market competition has sparked creative pricing strategies. Specific packages, referred to as "zero-rated content," permit unlimited access to certain content or services. While some contend that zero-rated content can increase internet accessibility, others (including the Indian Telecommunications Regulator and TRAI) have expressed concerns about the potential impact on competition. Sector-specific taxes, such as those for SIM card registration, can raise costs, stifle demand, and lower returns to public coffers by reducing volume.

- **Digital Inclusion and Building Human Capacity-** Language is a barrier to access. A lesser propensity to own a computer or use the internet is associated with poorer levels of English reading and writing (Quast 2016). Nevertheless, English makes up more than half of web content, and the lack of widespread acceptance has lowered the demand for internationalised domain names (IDNs) (EURid, UNESCO 2016).
- People are less likely to go online if there is no helpful content available in a language they can understand. Lack of technical literacy and confidence are two major obstacles for women to go online. Governments and other stakeholders must support the ability of SMEs and women to produce locally relevant content. Education and digital literacy programs are essential to equip tomorrow's software developers, local content creators, and policymakers with the abilities they need to contribute to and profit from the information society as creators rather than just consumers.
- **Measuring Access-** For determining effective policy responses, having a current, high-quality information is essential. Making informed decisions about how to solve digital disparities can benefit all stakeholders. Knowing how many

people are connected, how they are clicking, and the effects of being connected can help. National statistical organisations should systematically gather data on Internet access by gender. To create uniform measures, governments should allocate more funds and collaborate with the relevant parties.

e-Government Development Index (EGDI) serves as a benchmarking and development tool for countries to learn from each other, identify areas of strength and challenges in e-government and shape their policies and strategies in this area. The table below shows India's rank as per the United Nations e-government Survey, where the Number of participating countries was 193.

Table 1

| Year | Rank | EGDI Composite Score |
|------|-------------------|----------------------|
| 2022 | 105 th | 0.5883 |
| 2020 | 100 th | 0.5964 |
| 2018 | 96 th | 0.5669 |
| 2016 | 107 th | 0.4637 |
| 2014 | 118 th | 0.3834 |

Source: <https://publicadministration.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2022>

The government of India is implementing the "Digital India" programme to transform India into a knowledge-based society and economy. The Ministry of Electronics and Information Technology (MeitY), Government of India, launched the 'Digital India' programme with the vision to transform India into a digitally empowered society and knowledge-based economy by ensuring digital access, digital inclusion, and empowerment, bridging the digital divide. In summary, our mission is to ensure that digital technologies improve the life of every citizen, expand India's digital economy, and create investment and employment opportunities and global digital technological capabilities in the country. A broad effort called "Digital India" includes several government Ministries and Departments. e-Kranti Electronic delivery of services envisages the provisioning of various e-Governance services in the country. The goal of e-Kranti is to revolutionize e-Government services by growing the portfolio of Mission Mode Projects (MMPs) in e-Government under various government departments, implementing Government



Process Reengineering (GPR), automating workflows, introducing cutting-edge technologies including Cloud and mobile platforms, and emphasising the integration of services. Various other projects/schemes are being implemented under Digital India: MyGov aims to establish a link between the Government and citizens toward meeting the goal of good governance.

According to a PIB press release, Digital India has dramatically reduced the distance between Government and citizens significantly. Further, Digital India has also helped deliver substantial services directly to the beneficiary transparent and corruption-freely. India has become one of the pre-eminent nations of the world to use technology to transform the lives of citizens. Digital India is an umbrella program covering multiple projects of Central Ministries/Departments and States/UTs. Some of the significant initiatives related to public service delivery are as follows:

- **Common Services Centres** – Through Village Level Entrepreneurs, CSCs provide digital government and commercial services to rural communities (VLEs). This CSCs provide more than 400 digital services. 5.31 lakh CSCs are currently operational nationwide (in urban and rural areas), 4.20 lakh of which are at the Gram Panchayat level.
- **Unified Mobile Application for New-age Governance (UMANG)** – for giving citizens access to government services via mobile. At UMANG, you can access over 22,000 bill payment services as well as over 1,570 government services.
- **e-District Mission Mode Project (MMP)** – the

e-District project has been implemented at district and sub-district levels of all States/UTs, benefitting all citizens by delivering various e-Services such as Certificates (Birth, Caste, Death, Income, and Local Resident), Pension (Old Age, Disability and Widow), Electoral, Consumer Court, Revenue Court, Land Record and services of various departments such as Commercial Tax, Agriculture, Labour, Employment Training

and Skill Development, etc. Presently 4,671 e-services have been launched in 709 districts across India.

- **DigiLocker** – It is facilitating the paperless availability of public documents. Digital Locker has more than 11.7 crore users and more than 532 crore documents are made available through DigiLocker from 2,167 issuer organisations.
- **Unified Payment Interface (UPI)** – is the leading digital payment platform. It is integrated with 330 banks and facilitated over 586 crore monthly transactions worth over Rs 10 lakh crore has been facilitated for the month of June 2022.
- **CO-WIN** – It is an open platform for the management of registration, appointment scheduling & managing vaccination certificates for Covid-19. More than 203 crore vaccination doses and 110 crore registrations have been facilitated by co-win.
- **MyGov** – It is a citizen engagement platform that is developed to facilitate participatory governance. More than 2.48 crore users are actively using MyGov.
- **MeriPehchaan** – National Single Sign-on platform called Meri Pehchaan has been launched in July 2022 to facilitate/provide citizens ease of access to government portals.
- **MyScheme** – This platform has been launched in July 2022 to facilitate citizens to avail of eligibility-based services.
- **Direct Benefit Transfers** – 315 Schemes across 53 Ministries are offering Aadhaar-enabled

direct benefit transfers to citizens. So far, Rs 24.3 lakh crore has been disbursed through the DBT platform.

- **Diksha** – Diksha is a national-level educational platform that helps students and teachers to participate, contribute and leverage a common platform to achieve learning goals at scale for the country. As on 27th July 2022, 7,633 courses are available and more than 15 crore enrolments have been done.

The government has made the following moves in the direction of data governance for the nation's socioeconomic development. Here are some quick details:

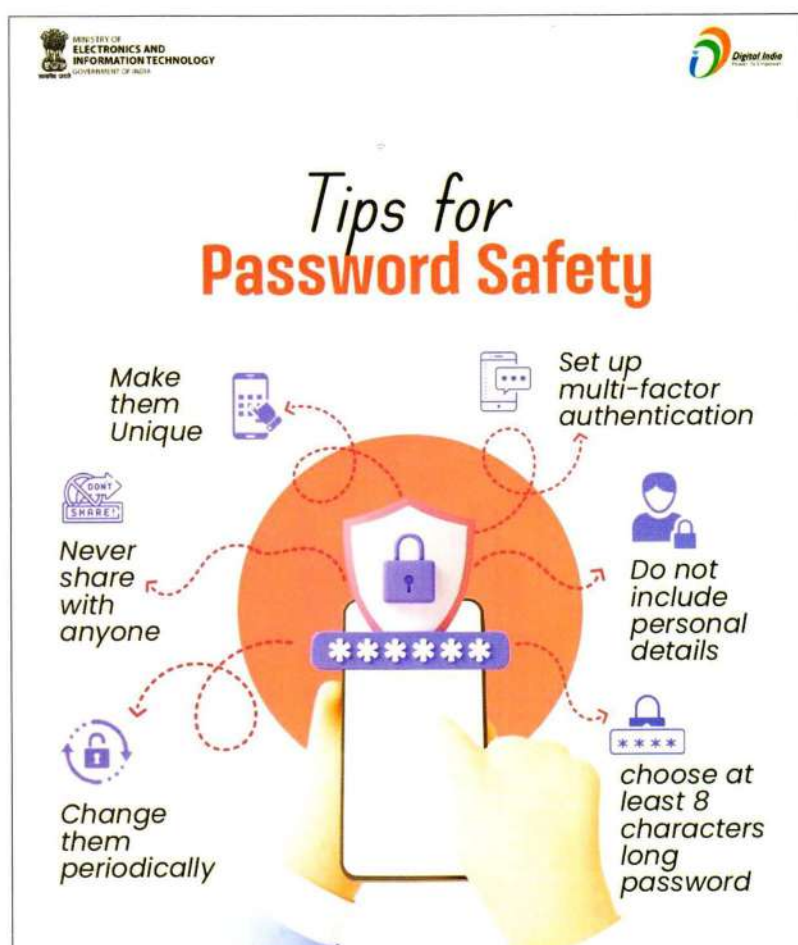
- **Open Government Data** - A platform for open government data has been created in order to facilitate data exchange and encourage innovation with regard to non-personal data. Over 5.65 lakh datasets are released over more than 12,800 catalogs. The platform has made 93.5 lakh downloads possible.
- **API Setu** - A platform called API Setu has been created to make data interchange across systems easier. More than 2100 APIs and 1000+ user organizations are available on the platform. The proposed National Data Governance Framework Policy was created by MeitY with the intention of realizing the full potential of India's vision for its digital government, enhancing the effectiveness of data-led governance & public service delivery, and fostering data-based research and innovation. The proposed policy is still being refined. On May 26, 2022, MeitY made the Draft National Data Governance Framework Policy available for public comment.

Concluding remarks

All levels of government need to be transformed by e-governance, but local governments should receive special attention because they

are the ones closest to the public and serve as the primary point of contact for many. Better internet connectivity should go hand in hand with improving digital infrastructure, especially in rural regions. For countries like India, whose citizens come from many linguistic origins, e-government through regional languages is highly beneficial. There are many successful projects currently underway in the nation, but very few of them are on a national scale. It's important to reproduce and upgrade effective models uniformly across the nation. It is important to address the inconsistent nature of the numerous applications created by different states, their integration to provide a single view, and their use of data mining and analytical approaches for decision-making. It is clear that consistent growth across all states and services is important for the successful adoption of e-governance in the nation.

A paradigm shift in how societies run themselves will be necessary to transform the globe and achieve sustainable development objectives by 2030. It will necessitate reevaluating how a government



manages the public affairs of a nation and attends to the demands of its citizens, as well as how it engages with civil society and the business sector. No one will be left behind in the pursuit of sustainable development, thanks to ICTs and e-government. Global interconnection and the growth of information and communications technology have the potential to accelerate human progress, close the digital divide, and create knowledge societies that foster innovation across a variety of industries.

To prevent the hazards of new and greater digital divides, scientific information, technology, and know-how produced by the digital era must be carefully managed. Governments should collaborate with the business sector in research and development, particularly in solving the broadband connectivity gap, in order to have a major societal impact when adopting new technology.

The digital revolution will include technological advancements, but it will also require a comprehensive approach that offers clients dependable, rapid, accessible, and customized services. The public sectors of many countries are not prepared for this change. Traditional methods may not apply, so a paradigm shift in strategic thinking, law, and regulation may be necessary. While e-government focuses on creating online services, the future will center on how digital government may change governance by harnessing societal creativity and resilience to advance Sustainable Development Goals.

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