Casting the Digital Net Wide in India

Inclusive digitalization involves expanding ICT access, adopting user-centric digital designs, and promoting digital literacy.

Introduction

Digitalization has transformed all facets of society in India. This includes everything from the way people transact, learn, and communicate (peer-to-peer services) to the way the government delivers and monitors services (government-to-person or G2P transactions) and businesses sell goods/services and collect payments (business-to-person transactions). It has eased information asymmetries across sectors, helped reach scale cheaply, and overcome limitations of brick-and-mortar and paper-based approaches.

Programs and schemes are now monitored digitally on a near real-time basis. Massive G2P transfers, such as $75 billion in relief funds during the COVID-19 pandemic, are undertaken swiftly, reliably, and at scale, often generating fiscal savings. E-commerce enables small businesses to acquire new markets far and wide, and even the most doggedly informal sectors are warming up to payments through QR codes.

However, digital divides have led to uneven gains. A recent and ongoing example is the experience with
CoWIN, India’s vaccine administration platform. At the peak of the spread of COVID-19 in India, a peculiarly digital inequality emerged with the use of the CoWin application. The digitally connected and tech-savvy were able to grab publicly offered vaccine slots by swiftly navigating the portal/app and/or using privately provisioned third-party apps, while the digitally disadvantaged were left out. As of 23 June 2021 (around the time when cases peaked last year), only 40% of all individuals were registered online through the CoWIN app while the rest received their jabs through on-site registration.

Likewise, even as learning gains in India plummeted due to school closures, high-income families could afford EdTech and other online education platforms to fill learning gaps.

The benefits of digital approaches are hard to ignore: real-time information, transparency, speed, scale, and cost-efficiency. For example, the CoWIN dashboard displays near real-time progress on inoculations in a transparent manner—with impressive disaggregation. Early on in the pandemic, digital contact-tracing apps helped stem virus spread globally, including in India, which used an indigenous app (Aarogya Setu). The examples go beyond COVID-19. The paper-based Mother and Child Protection Cards, which are used as community-level records of immunizations (not related to COVID-19), are being digitized in some states under pilot programs. Once digitized, errors of omission and commission will be reduced and domestic migrant beneficiaries (of whom there are many) will benefit from its portability.

Pathways to Inclusive Digitalization

What could be the pathways to inclusive digitalization? Three interconnected strategies are top of mind: a) closing digital divides; b) adopting inclusive and user-centric principles in digital design and development; and c) pursuing digital literacy.

Bridge the digital gap

The extent of the digital divide in India is markedly sharp, including those shaped spatially (rural–urban gap), by gender (male–female gap), and by socio-economic strata. The divides are infrastructural and digital literacy-related, but social norms also impact on the digital uptake among women. Infrastructure gaps relate to disparity in access to information and communications technology, including availability and affordability of devices and network connectivity. These foundational gaps are at the heart of the digital divide.

Internet penetration in India is around 45%, including 220 million active rural internet users. As per estimates, only about 42% of Indians own a smartphone. Even so, ownership may not translate to meaningful and sophisticated use, as women may have less control over devices, or digitally less-literate people may not be able to make full use of available features and applications. Likewise, connectivity should not be seen as a binary (yes/no) outcome but a qualitative one (speed, quality, reliability, etc.).

The gender digital divide is crushing. The Global System for Mobile Communications estimated a 50% gender gap in mobile internet use in India as of 2020. Available research suggests that household male
members’ control over women’s use of mobile is significant.

**Adopt inclusive and user-centric digital designs**

Given the low penetration of smartphones and still large share of feature phone users (estimated at 40%), user-facing digital interventions can explore more feature phone-friendly processes, as well as applications that could be used offline and at low-speed. Making content available in local languages can also help address the digital content barrier.

User-centric design should ideally be a result of user research, or at least wide consultations, to garner diverse inputs, primarily from intended end-users. It should benchmark digital literacy, network connectivity, and comfort of intended users. For example, allowing four individuals to register for COVID-19 vaccines on one mobile phone using the CoWIN app is responsive to the device ownership context in India. Feature phone-led digital payments, such as the Unified Payments Interface service called UPI123, are also a step toward ensuring that we leave no one behind.

**Promote digital literacy**

Digitally empowering women and men through capacity building and awareness-raising, as well as through foundational digital literacy trainings, is imperative. Even in urban India, only 57% of women reported having ever used the internet compared to 74% of men. Digital literacy trainings should target population groups who are at risk of exclusion. Community structures, such as women’s self-help groups, are a potential vehicle to scale up digital trainings. Existing programs like Digital Saksharta Abhiyan are useful, but it is important to ensure that capacity-building efforts are adequately gender-responsive. The common service centers under Digital India can be leveraged to support the less digitally literate, particularly in rural areas, and can help keep the human touch in digital interventions.

**Conclusion**

The underlying message is clear: digitalization is here to stay and the sooner we make it inclusive, the better. Deferring digitalization will exacerbate inequalities by benefiting the digitally connected, digitally literate, and digitally empowered, while leaving the already worse-off further behind. Until foundations of equal digital benefits are erected, it remains necessary to invest in adequate offline mechanisms that protect the currently digitally excluded or digitally disadvantaged.

**Resources**


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