

India's Biometric ID

Post-Pandemic Integrations

India's e-governance architecture rests on a unique identification scheme known as Aadhaar, which issues a 12-digit ID number to Indian residents when they register their biometric data, including fingerprints and iris scans, and present valid proof of identity. Banks, government agencies and many private companies are now equipped to verify Aadhaar IDs online. Building on Aadhaar, India has also enabled direct transfer of cash benefits to Aadhaar-linked bank accounts. India's e-governance system has gained traction during the COVID-19 pandemic, despite persistent concerns about privacy and data security.

Brief Points

- A biometric ID-based cash transfer system via smartphone and mobile banking is currently the Indian government's main vehicle for distribution of emergency aid and other benefits to the poor.
- The COVID-19 pandemic tested the capacity and efficiency of delivery systems reliant on the Aadhaar unique ID scheme in absence of a legal framework for data protection.
- The pandemic also kicked off the development of several new tools for e-governance and public health monitoring, including the Aarogya Setu contact-tracing app.

India's Biometric ID Architecture

India, the world's largest democracy, with a population of more than 1.5 billion, is a pioneer in e-governance. Its national government has an ambitious strategy for e-governance that promises to 'leave nobody behind'.

India aspires to harness 'smart' technology to govern more efficiently and with less corruption and to distribute relief and benefits to the poor and disadvantaged more effectively. In April 2015, India's National Democratic Alliance government, led by Prime Minister Narendra Modi, launched a National e-Governance Plan known as e-Kranti.¹ This plan is an 'upgraded' version of the Digital India program and the Unique ID initiative, rebranded by the new government as 'transforming e-governance for transforming governance'.

India began promoting e-governance more than a decade ago, when it launched a biometric identification scheme known as 'Aadhaar'² or 'Foundation'. Aadhaar is the world's largest biometric ID project, organized as a network of private-public partnerships, with the multinational IT enterprise Infosys playing a leading development role. Under the Aadhaar scheme, a unique 12-digit identity number is issued to every Indian resident who presents valid proof of identity and registers biometric data, including fingerprints and iris scans.

Key objectives of the Aadhaar scheme are to enhance the efficiency of service delivery, offer mobility of identity, prevent data leakage due to corruption and fraud, and eliminate ghost beneficiaries.

Theft and misuse of personal data linked to the Aadhaar system have been exposed numerous times, including a major breach of personal data reported by a journalist in 2018 (Khaira 2018). Many Indians thus doubt the security of their personal data that is registered in databases connected to Aadhaar ID. A legal battle over the Unique ID initiative has been ongoing since 2009, when concerned lawmakers first attempted to legislate the protection of personal data. A Personal Data Protection Bill, proposed in 2019, would have imposed limits on how the personal data of Indian residents could be used, processed and stored. It would also have established a new Data Protection Authority with responsibility for monitoring compliance with the law (Sur 2020). But the draft bill was unexpectedly withdrawn on 3 August 2022 to 'make way for a comprehensive legal framework for the digital ecosystem' (Internet Freedom Foundation 2022).

Despite persistent concerns about privacy and data security, banks, insurance companies, telecom companies and most government agencies in India have been equipped to verify Aadhaar numbers online, with Aadhaar accounts stored in the cloud. Building on Aadhaar ID, authorities have also rolled out direct benefit transfers and a remittance system that allows government agencies to transfer cash benefits, ranging from pensions to short-term relief, directly to bank accounts linked to Aadhaar.

The Aadhaar-supported financial inclusion scheme, Pradhan Mantri Jan Dhan Yojana (PMJDY),³ aims to bring low-income Indian households into the banking system. PMJDY forms the backbone of a new social security

delivery system that is being promoted as a vehicle for social inclusion for the marginalized and disadvantaged. Under the PMJDY scheme, the government can deposit benefits directly to individual bank accounts that are accessed using Aadhaar identification. This includes benefit transfers as well as wages under the Mahatma Gandhi National Rural Employment Guarantee Act (NREGA).⁴ Additionally, those with PMJDY accounts are eligible for other poverty alleviation assistance, such as food for Below Poverty Line (BPL) families and households regarded as at risk of hunger under the Antyodaya Anna Yojana (AAY) program, which is part of India's food and public distribution system.⁵ PMJDY also provides life and health insurance coverage to eligible beneficiaries. About 400 million PMJDY accounts had been opened as of August 2020.

First proposed in India's Economic Survey of 2014-15, the Jan Dhan-Aadhaar-Mobile (JAM) initiative links bank account numbers, Aadhaar ID numbers and mobile phone numbers to make cash transfers and other benefits available to beneficiaries via mobile phone. JAM promises to connect the Aadhaar ID registry to the government's nation-wide database of bank accounts, including PMJDY accounts, and to a database of more than 900 million mobile phone accounts.

COVID-19 Meets E-Governance

After the detection of COVID-19 in India in early 2020, health authorities launched intensive monitoring of cases and hospitalizations across the country. On 24 March 2020, Prime Minister Modi announced a nationwide stay-at-home order, to begin at midnight. Issuing curfew guidelines⁶ from the Union Ministry of India, initially for twenty-one days, Modi announced that all Indians must stay at their residences to prevent the spread of COVID-19. The guidelines imposed unprecedented restrictions on mobility. As workplaces came under lockdown, migrant laborers had to return to their original homes although all public transportation had been suspended.

Distribution of emergency cash payments to those in need as well as food supplied through the public distribution system put the JAM delivery system to the test. A relief package under the Pradhan Mantri Garib Kalyan (PMGK)⁷ scheme was announced just two days after the

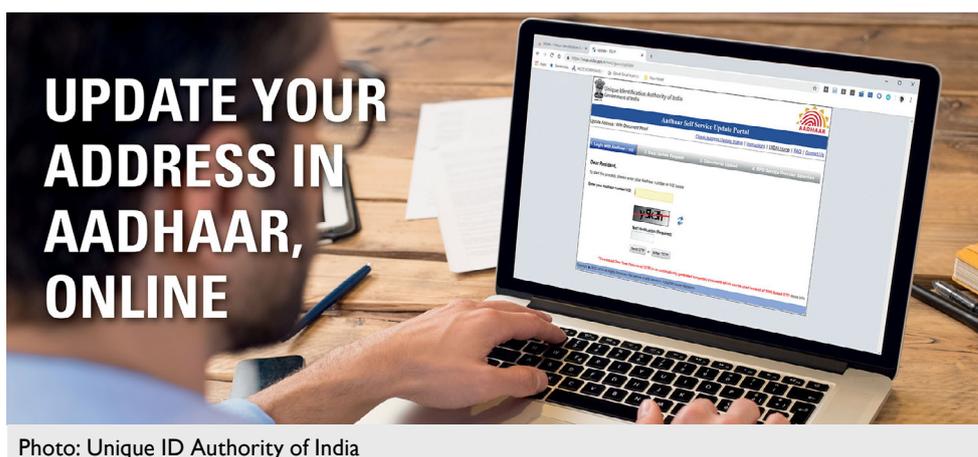


Photo: Unique ID Authority of India

a COVID-19 vaccination tracker? What happens when data gathered with the help of detailed geolocation and contact tracing is integrated into other health monitoring systems, such as the National Health Stack?

If or when such integration occurs, what are the implications for the right to privacy and how will an increasingly alert Indian citizenry's trust in governmental as well as private service providers be affected?

How does the growing distrust of apps like Aarogya Setu affect the willingness of Indian citizens to collaborate with authorities on COVID-19 monitoring, and how does distrust affect the uptake of other public health interventions, such as vaccination?

India's development of e-governance is still underway. It is well worth watching, not only because of the scale and complexity of its e-governance efforts, but also because of the vast numbers of vulnerable and poverty-stricken people affected by these efforts. India's experience will be instructive to countries across the world interested in the design of new e-governance systems.

Crucial to meeting the COVID-19 challenge is the Indian government's ability to provide e-governance systems and tools that are secure, functional, user-friendly and, not least, accessible and trusted by the public.

Key Findings

- Indian authorities have engaged in unprecedented collection, sorting, storage and processing of uniquely identifiable health data in response to the COVID-19 pandemic. Public confidence in India's e-governance architecture is vital to good citizen-state relations.

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- The COVID-19 pandemic has posed a monumental challenge to India's emergent e-governance and digital welfare infrastructure and put to the test the Modi government's capacity for technological innovation.

- COVID-19 restrictions have taken a heavy toll on the Indian population, especially on informal workers, the rural poor and other marginalized groups. The pandemic has also stretched the capacity of India's e-governance infrastructure, and the fabric of Indian society, accelerating the Indian population's dependence on the digital infrastructure, mobile networks and 'smart' devices.

- The new National Health Stack is a cloud-based registry of health data that, coupled with the Aarogya Setu app, facilitates the government's monitoring and tracking of Indian citizens on an unprecedented scale.

- Post-pandemic, India's e-governance integration and extensive data collection allows the Indian government to render individual citizens as bodies of data that can be much more readily known, governed and traced. ■

Notes

1. See: digitalindia.gov.in/content/ekranti.
2. See: uidai.gov.in.
3. See: www.pmjdy.gov.in.
4. See: nrega.nic.in/netnrega/mgnrega_new/Nrega_home.aspx.
5. See: dfpd.gov.in/index.htm.
6. See: twitter.com/ANI/status/1242476674710560770.
7. See: pib.gov.in/PressReleaseIframePage.aspx?PRID=1608345.

THE PROJECT

'e-Topia: China, India and Biometric Borders' studies Indian and Chinese approaches to the digitalization of services and society in general and the everyday impact of e-governance and Internet of Things policies in contemporary India and China. The project is funded by the Research Council of Norway, UTENRIKS – Asia in a Time of Change.

8. See: <http://aarogyasetu.gov.in>.

9. See: github.com/nic-delhi/AarogyaSetu_Android.

10. See: static.mygov.in/rest/s3fs-public/mygov_159050700051307401.pdf.

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