REACH PROJECT | 2017

India

*Case study:
Aadhaar - providing
proof of identity to a
billion*

CONTENTS

CHAPTER 1

Proof of identity: A powerful tool of inclusion

Proof of identity can be a powerful tool for inclusion.

With proof of identity, an individual can gain access to services, claim government benefits, and participate more fully in the economy. Recognizing the importance of identification as a tool for inclusion, Target 16.9 of the Social Development Goals (SDGs) is to "provide legal identity for all" by 2030. Yet the World Bank finds that, as of February 2016, approximately 1.5 billion people in the developing world lack legal proof of identity.

Without identification, an individual may struggle to claim government cash transfers, to enroll for school, to find employment in the formal sector, to vote, or to purchase a SIM card. Even more troubling, when marginalized individuals lack proof of identity, they may miss out on the government welfare and protection schemes that are intended to benefit them.

In India, proof of identity facilitates inclusion in numerous ways. Proof of identity can enable individuals to access social welfare programs. A number of these programs involve the transfer of cash to beneficiaries in order to meet the costs of household needs.

Proof of identity also enables individuals to access banking services, including the ability

Permanent Account Number cards and the National Rural Employment Guarantee Act

Permanent Account Number (PAN) cards are issued by the Income Tax Department. While they serve as proof of identity when individuals make tax payments and receive income tax returns, they can also be used as proof of identity when accessing other services.

National Rural Employment Gurantee Act (NREGA) is a social program that provides rural households with a guaranteed minimum amount of paid work.

to open a savings account or send remittances. Proof of identity is also a widespread requirement to register children for school in India, which turns a lack thereof into an important concern for many families. Having a government-issued, widely-recognized proof of identity can also help marginalized individuals, notably migrants, avoid harassment by the police.

Further, for those who have previously lacked their own individual proof of identity – independent of identification shared and possessed by other family members - gaining proof of identity can create a sense of empowerment and give an individual more agency.

Taken together, a proof of identity ensures that an individual benefits more fully from the programs, services, and other opportunities available to them.

The identification landscape in India

Prior to 2010, the landscape of identification in India was fragmented. Forms of identification that are more widely accepted as proof of identity, including passports and Permanent Account Number (PAN) cards, were held only by a relatively small number of individuals. By contrast, the more widely held identification documents – ration cards, National Rural Employment Gurantee Act (NREGA) cards, and voter ID cards - have more limited utility.

The utility of ration cards, NREGA cards, and voter identification cards are limited

fraud, and the family-based nature of some of the cards.

In India, the portability of common identification documents can be limited by geography or by the purpose of a document. Many individuals in India are unable to use their ration cards, NREGA cards, and voter identification cards outside the state in which the document was produced, limiting their geographic portability.

Voter identification cards can also have limited functional portability, as they may not be accepted as proof of identification for some purposes beyond voting. Fraud is also widespread among identification documents in India. Due to concerns about fraud, PAN cards, voter identification cards, and ration cards may be refused.

Added to these limitations is the family-based or "relational" nature of some pieces of identification – notably NREGA cards and ration cards. Because NREGA cards and ration cards are issued to families, and not individuals, family and gender dynamics may restrict the ability of some family members to use the document. This challenge is made more acute if family members decide to migrate within the country, either taking the identity document with them or leaving it behind.

Taken together, these characteristics of common forms of identification in India reduce the usefulness of these documents, and ultimately limit the extent to which an individual can use

Proof of Identity	Estimated Coverage in 2008
Passport	40 Million
PAN Card	70 Million
Ration Card	220 Million
Voter ID	500 Million

Source: "Aadhaar: Inclusive by design". GSMA. 2017.

these identification documents as a tool for inclusion.

The creation of Aadhaar

In 2009, recognizing the importance of proof of identity and its role in promoting social inclusion, the Indian Government created the Unique Identification Authority of India (UIDAI). The UIDAI was mandated with the task of providing a unique and non-duplicable proof of identity to every resident of India. This proof of identity took the form of a unique identification number (UID), that is linked to an individual's iris scans and fingerprints, as well as basic demographic data. This identification number was given the name: "Aadhaar."

The word Aadhaar means "foundation" in several Indian languages. With Aadhaar, the central government sought to create an identification system that would be used throughout the country – serving as a foundation for the provision of services and benefits. For individuals, an Aadhaar number offers proof of identity that is accepted across states and union territories by a wide number of service providers. For the government and other service providers, Aadhaar's biometric de-duplication was designed to help prevent duplicate payments, leakage, and other sources of fraud.

As of May 2017, over 1.14 million individuals have been enrolled for an Aadhaar number. Based on the projected population for 2015, 89.6 percent of India's population has been enrolled. Examining the adult population alone, which was the focus of enrollment for the first several years, a saturation rate of over 100 percent, based on 2015 population projections, has been achieved.

The ability to create a proof of identity for over a billion individuals since 2009 stands out as a remarkable example of reach. This success is made even more remarkable after considering the context in which it has been achieved. India is a country of immense geographic and linguistic diversity. Roughly 70 percent of India's population lives in rural areas. And according to the World Bank, as of 2012 approximately 270 millions Indians – roughly one in five - was poor.

Each of these characteristics can present challenges for social service delivery. Yet throughout the country, the Unique Identification Authority of India has worked in cooperation with other governmental departments, businesses, and non-governmental organizations to enroll roughly 90 percent of Indian residents for Aadhaar.

Our team has identified several factors which have contributed to India's success in creating portable proof of identity for over a billion of its residents – and counting. These are discussed in greater detail in this report.

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The enrollment ecosystem

Under the Unique Identification Authority of India (UIDAI)'s leadership, a network of different government agencies and private businesses participate in the enrollment process. The network of these organizations is referred to as the "enrollment ecosystem".

Learn more > CHAPTER 2

Inclusion of hard to reach groups

The enrollment process was designed to be accessible to India's diverse residents, with special consideration given to the inclusion of hard to reach groups.

Learn more > CHAPTER 3

Active reach

The UIDAI and its partners have used numerous methods of active reach to encourage enrollment. Of particular importance, local partners have been given the flexibility and autonomy to use methods of active reach best suited to their target populations.

Learn more > CHAPTER 4

Succesful delivery

Through the efforts of India's postal service and the assistance of some NGOs, many Aadhaar cards have been successfully delivered to individuals. Those who do not receive their Aadhaar card by mail can follow up with a call center, or log in to an online portal to look up their Aadhaar number.

Learn more > CHAPTER 5

Linkages

Aadhaar has been linked to a variety of services and benefits. These linkages have generated widespread demand for enrollment - facilitating Aadhaar's reach.

Learn more > CHAPTER 6

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While India has been successful in enrolling the vast majority of its residents for Aadhaar, some challenges and controversies persist. On the issue of Aadhaar card delivery, there have been reports of delays and failures to have an Aadhaar number delivered (Section 5).

Aadhaar's linkages to other services and benefits have also been a source of controversy. Much of the controversy relates to reports of false authentication failures and data leaks, and debates about whether Aadhaar ought to be mandatory for access to services and benefits (Section 6).

About this research

The following report is the result of a year-long research project, carried out by Professor Joseph Wong of the Munk School of Global Affairs and the Department of Political Science at the University of Toronto, Kirstyn Koswin, Research Officer at the Reach Project, and four student researchers: Carol Drumm, Nikhil Pandey, Shruti Sardesai, and Cheryl Young.

This research is made possible through a partnership between the Munk School of Global Affairs and the Mastercard Center for Inclusive Growth. In addition to the support of these

From left to right: Kirstyn Koswin (Reach Project research officer), Nikhil Pandey, Carol Drumm, Shruti Sardesai, Sneha (research assistant), Cheryl Young

two organizations, research was also funded by the Canada Research Chairs program; and the Ralph and Roz Halbert Professorship of Innovation at the Munk School of Global Affairs.

Research was conducted from September 2016 through May 2017, including primary fieldwork in India in April 2017. Interviews and site visits were conducted in one union territory and multiple states.

The authors of this report would like to express our gratitude and appreciation to those we met and interviewed in India, including government officials, civil society activists, businesses, professionals from international organizations, and scholars. We are grateful to have had the opportunity to speak with and learn from you.

This research project, including fieldwork, was vetted and received approval by the Ethics Review Board of the University of Toronto.

This report is the fifth in a series of case study reports on the concept of development reach, and specifically innovative programs that are successfully reaching populations that are the hardest to reach. Our earlier reports, as well as various blog and insight pieces, can be retrieved on the Reach Project website (http://reachprojectuoft.com).

CHAPTER 2

Enrollment ecoystem

Since its creation in 2009, Aadhaar has given proof of identity to over one billion Indian residents. While the speed of enrollment is remarkable on its own, it is made even more remarkable by the fact that the government agency with primary responsibility for Aadhaar, the Unique Identification Authority of India (UIDAI), has roughly 280 full time staff. With so few staff, how was Aadhaar enrollment spread throughout India with such speed and breadth? The answer: through partnerships and contracts with other government agencies and private businesses, referred to as the Aadhaar "enrollment ecoystem."

Sample List of Registrars

- » Axis Bank Ltd.
- » Bank of India
- » Director of Health, Family and Welfare, UT
- » Social Welfare Department, Government of Bihar
- » State Bank of Hyderabad Tamil Nadu eGovernance Agency

The UIDAI and its ecosystem

The UIDAI was created in 2009 as a federal agency with the mandate of issuing a unique identification number to every resident in India. Headquartered in Delhi with a network of regional offices throughout the country, the UIDAI is responsible for the design of the Aadhaar identification system, and for overseeing enrollment and authentication. While the UIDAI is the government agency responsible for Aadhaar, the identification system was designed to both enable and incentivize other government agencies and private businesses to assist in the process of enrollment. ***The UIDAI refers to this network of government agencies and private businesses as the "enrollment ecosystem."***

In the enrollment ecosystem, the UIDAI establishes partnerships with organizations that work as registrars. Registrars coordinate and oversee enrollment activities and enrollment agencies, using standards and processes outlined by the UIDAI. Registrars tend to be public organizations that already provide services to Indian residents, like government departments or banks. These registrars hire enrollment agencies to perform the work of enrolling individual residents for Aadhaar.

Enrollment agencies are typically private businesses. In some cases, registrars also conduct individual enrollments.

With only approximately 280 full-time staff working for the UIDAI - based primarily in national headquarters and

regional offices, ***the ecosystem model has allowed the UIDAI to bring Aadhaar enrollment to over 1.14 billion Indian residents (as of May 2017) in a matter of years.***

Standardization

While enrollment is overseen by registrars and performed primarily by enrollment agencies, policies and procedures have been put in place by the Unique Identification Authority of India (UIDAI) to make the process of enrollment consistent throughout the country.

Through standardization, the UIDAI aims to ensure that the quality of information entered into the identification system remains high, while allowing a variety of different organizations to conduct enrollments. UIDAI's standardization of enrolment procedures has also made any manipulation and corruption of the enrollment system more challenging – with the aim of ensuring that government benefits and services accessed through Aadhaar are allocated to the appropriate people.

The UIDAI has promoted and reinforced standardization through the creation of enrollment software, and through a certification process for enrollment equipment, agencies, and operators. Throughout the country, operators

Doomroli, Rajasthan. **The owner of this store has been certified as an Enrollment Operator. He conducts Aadhaar enrollments for residents of Doomroli and in surrounding areas.**

use the same software to conduct enrollments.

The program is designed to be simple and easy to use, while the back-end technology enforces certain requirements before an enrollment can be successfully completed. For example, an operator may be prompted to have the enrollee provide their iris scan. If the scan is not of a high enough quality, the individual will be prompted to re-scan the iris. These prompts are designed to be simple and easy to follow.

Through the certification of enrollment equipment, the UIDAI is able to verify that the different tools and technologies required for enrollment are working effectively and consistently. Similarly, through the certification of enrollment agencies and operators, the UIDAI aims to ensure that the processes for managing enrollment and interpersonal interactions during enrollment are both appropriate and effective.

Collectively, these approaches to standardization make it possible for a variety of organizations to participate in enrollment, while allowing the UIDAI and partners to manage the quality of the information collected and the experience of the individual enrolling.

Incentives for participation

To encourage potential registrars and enrollment agencies to participate in the enrollment ecosystem, the Unique Identification Authority of India (UIDAI) has designed a payment structure that rewards new enrollments. For every new enrollment that takes place –

resulting in the issue of a new Aadhaar number – the registrar responsible is transferred a defined amount of money. The registrar is then responsible for compensating the enrollment agency that made the enrollment. In this way, Aadhaar was designed to encourage government agencies and businesses to participate in the enrollment process and to ensure that enrollments are successfully completed.

There are a number of additional incentives that encourage large-scale, legitimate and rapid enrollment. These incentives are built into the design of the ecosystem model. To participate in the enrollment ecosystem, enrollment agencies must purchase software and equipment certified by the UIDAI.

As enrollment agencies are only paid per successful enrollment, they are incentivized to enroll as many individuals as possible. Payments for new enrollments allow enrollment agencies to recover their equipment costs, and then begin to make a profit on their enrollment work. Further, the biometric mechanisms to prevent duplicate entries that are built into the Aadhaar database make it difficult to re-enroll someone once they have had an Aadhaar number created. As a result, enrollment agencies are incentivized to seek out individuals without an Aadhaar number, and enroll them. Enrollment agencies and registrars are also in competition with one another to conduct a limited number of possible enrollments - further incentivizing efficient and widespread enrollment.

Low enrollment rates for underage population

Throughout 2017, certain Unique Identification Authority of India (UIDAI) regional offices and nodal offices have worked with schools, orphanages, and anganwadis across India to reach children under the age of 18. As a group, children under the age of 18 still have relatively low enrollment rates.

Nodal officers: identifying and closing enrollment gaps

In the effort to enroll every Indian resident for Aadhaar, Nodal Officers have a lead role.

Nodal officers work closely with registrars, enrollment agencies, community members, and the Unique Identification Authority of India (UIDAI) to identify and address enrollment gaps. In each state or union territory, the UIDAI has designated one nodal officer to support Aadhaar enrollment. Nodal officers are typically part of a specific department within a state government. While nodal officers generally act as registrars, they have several additional responsibilities which make critical contributions to the reach of Aadhaar enrollment.

Nodal officers are responsible for coordinating between the UIDAI and other Aadhaar partners, managing state contact centers and phone lines; forming working groups to discuss best practices for enrollment; and launching special enrollment drives to target populations that have not yet been reached by Aadhaar.

Most critically, nodal officers are expected to take an active role in filling enrollment gaps through special enrollment drives. In the Nodal Office of Karnataka, individuals we spoke with were leading efforts to identify and enroll members of scheduled tribes in remote locations. According to an individual at the Nodal Office, private enrollment agencies that were active in the state lacked the financial incentives to

enroll the remaining individuals who did not have an Aadhaar number.

The cost to travel long distances with several staff, only to enroll one or two individuals, is greater than the payment received for each new enrollment. In this situation, the Nodal Office subsidizes the cost of Aadhaar enrollment for individuals in remote locations.

These efforts to organize targeted enrollment drives are vital to ensuring that India's most remote and marginalized residents also benefit from Aadhaar.

The UIDAI's reliance on an enrollment ecosystem has enabled private enrollment agencies to quickly and efficiently enroll large groups of Indian residents for Aadhaar. However, the existence and work of Nodal Offices illustrate the vital role of the government in ensuring that the hardest to reach are not excluded from enrollment.
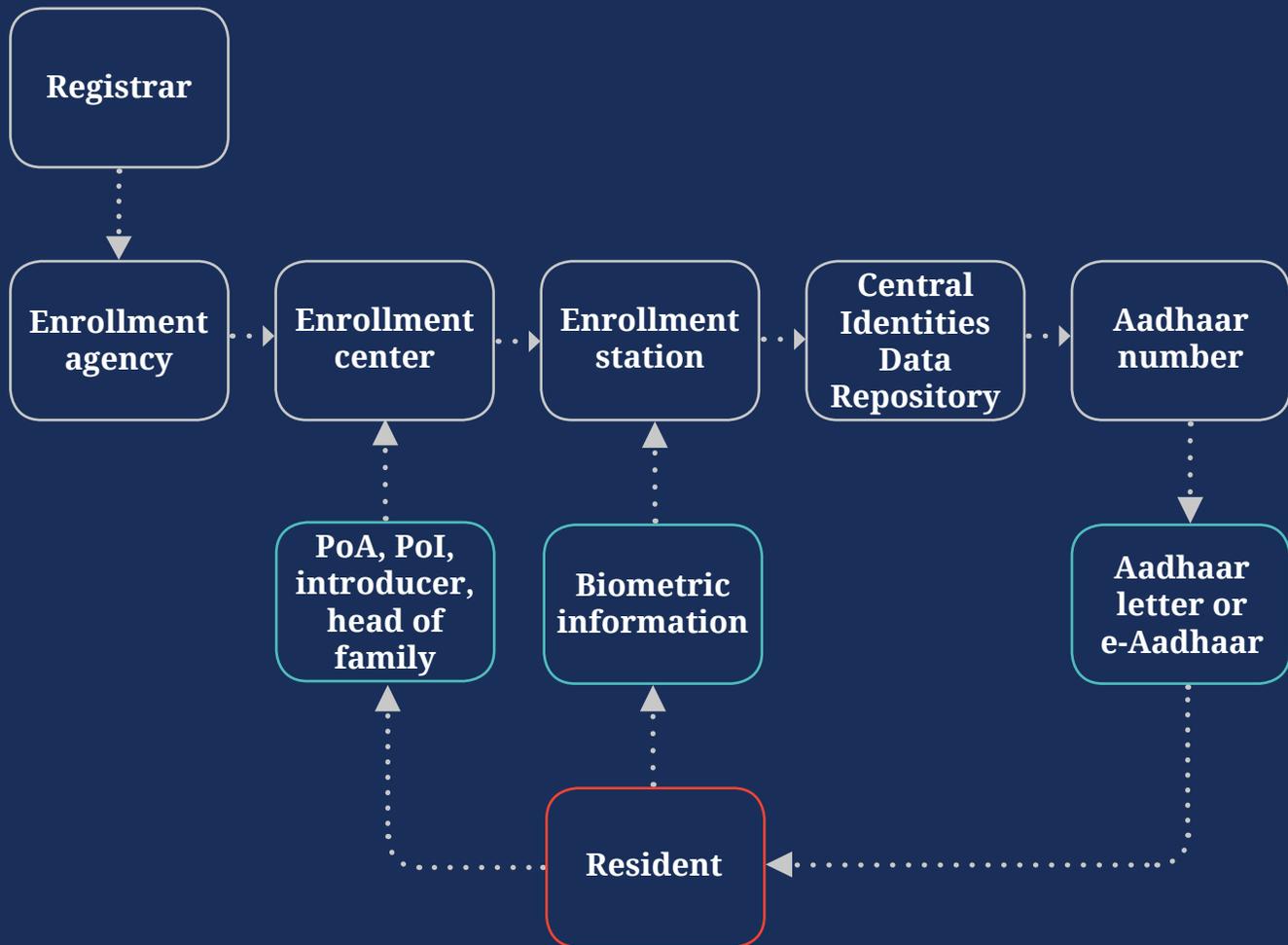
Summary

Aadhaar's enrollment success is built on relationships between different levels of government and private businesses – referred to as the enrollment ecosystem. As the government lead on Aadhaar, the Unique Identification Authority of India developed the identification system, and standards governing enrollment. Closer to the ground, registrars organize and equip enrollment agencies to carry out enrollment processes. In areas or communities where hard-to-reach individuals live, Nodal Officers work to ensure that these individuals are not missed. Together, these organizations have created an enrollment process that is swift, broad, and inclusive.

<u>**CHAPTER 3**</u>

Accessible enrollment process

To reach the hardest to reach, the Unique Identification Authority of India designed the Aadhaar enrollment process so that it would be widely accessible. Aadhaar enrollment is intended to be fast and simple – with a small number of informational requirements. To facilitate inclusion, certain mechanisms were imbedded into the enrollment process to reach people who do not have any form of identification, live in remote and rural areas without internet connectivity, or do not have an address. Further, the presence of multiple registrars and enrollment agencies allows many individuals to choose where and when to enroll.

Enrollment process

The process of enrollment has been designed to be quick and accessible. To enroll, individuals are required to present themselves at an enrolment center with proof-of-identification and proof-of-address. There is no enrollment fee.

Once at the enrollment center, operators guide the individual through the enrollment process. Less than 10 pieces of demographic information are required to complete the enrollment form. The small volume of demographic information collected is intended to reduce the time and information burden on the individual enrolling, ensuring the process is as efficient as possible.

During enrollment, the operator also collects biometric information from the individual. This information will enable biometric identity verification after enrollment is complete. The operator typically captures iris scans, ten fingerprints, and a portrait photo with facial-recognition technologies. After biometrics are captured, they

are compared against the other biometricsalready stored in the database. This comparison of biometric data – referred to as de-duplication – may take place in real time if the individual is being enrolled in an area with internet connectivity. However, recognizing that a number of India's residents live in rural areas without internet, the enrollment software was designed to operate offline.

If the individual is being enrolled in an area without internet, their biometrics will be de-duplicated once the operator returns to an area with connectivity.

Notably, the over 99.9 percent successful de-duplication rate ensures that very few duplicate or fake identities are created.

Once both demographic and biometric information have been captured and input into the enrollment software, an individual can leave the enrollment center. After enrollment, Aadhaar numbers are delivered to an individual's home. The delivery process is discussed in greater detail in section 5.

Biometric exception

For a number of people, Aadhaar's biometric requirements pose a barrier to enrollment. To obtain an Aadhaar number, residents are asked to provide their ten fingerprints and scans of their

Enrollment equipment displays an individual's iris.

Sample list of supported POI documents containing name and photo

» Passport
» PAN card
» Ration / PDS photo card
» Voter ID
» Driving license
» Government photo ID cards / service photo identity card issued by PSU
» NREGA job card
» Photo ID issued by recognized educational institution
» Arms license
» Photo bank ATM card
» Photo credit card
» Pensioner photo card
» Freedom Fighter photo card
» Address card having name and photo issued by Department of Posts
» Certificate of identity having
» photo issued by Gazetted
» Officer or Tehsildar on letterhead

Source: UIDAI Website

two irises. However for some, providing this information is impossible. For some elderly individuals, providing the required biometric information can be difficult as age can degrade fingertips and iris scanners may struggle to capture accurate images. Many of India's poorest residents work as laborers, and fingerprint scanners may be unable to capture their worn fingertips. Additionally, injury, amputation of fingers and hands, and eye disease create situations where biometric information cannot be collected.

To ensure that individuals with the above conditions are not excluded from Aadhaar enrollment, the Unique Identification Authority of India has embedded "biometric exception" into the enrollment system. If fingerprint or iris scan collection is not possible, operators can waive the biometric requirement, and move forward with the enrollment process. In this situation, the enrollment operator will note the nature of the biometric exception, take a picture of the exception, and upload this picture onto the resident's application.

Proof of identity and address

Residents must provide Proof of Identity (POI) and Proof of Address (POA) documents as part of the enrollment process. But for many individuals in India, proving their identity and address is a challenge. It is for this very reason that Aadhaar was created.

To address this challenge, the Unique Identification Authority of India (UIDAI) allows residents to confirm their identity

Sample list of supported POA documents containing name and photo

» Passport
» Bank statement / passbook
» Post Office account statement / passbook
» Ration card
» Voter ID
» Driving license
» Signed letter having photo from Bank on letterhead
» Signed letter having photo issued by recognized educational institutions on letterhead
» NREGA job card
» Certificate of address having photo issued by MP or MLA or Gazetted Officer or Tehsildar on letterhead
» Certificate of address issued by Village Panchayat head or its equivalent authority (for rural areas)
» Marriage certificate issued by the government containing address

Source: UIDAI Website

and address with numerous POI and POA documents. There are 18 types of POI documents and 35 types of POA documents that are accepted at enrollment centers. In India, many residents find that when they move from one state to another, the identification they used is no longer accepted.

The UIDAI has ensured that this is not a problem for Aadhaar enrollment; if a document is one of the approved POIs or POAs, it will be accepted irrespective of the state where the document was produced. Similarly, many documents that have been produced for specific purposes – such as ration cards or voter ID cards – are also accepted as POI and POA during Aadhaar enrollment. ***A ration card or voter ID card issued in Chhattisgarh will be accepted by an enrollment agency as POI in Delhi.***

A related challenge that the UIDAI has had to overcome was ensuring that residents who have no form of identification could still receive an Aadhaar number.

Determining how to provide identification to people who have never had any form of identification is challenging, as enrollment operators need a way to confirm that a resident is who they say they are.

To address this challenge, the UIDAI created "Introducers." An Introducer is a person authorized by the UIDAI or by a registrar to confirm the identity and address of a resident applying for Aadhaar. Introducers are typically well known in a certain area or they may work directly with marginalized people.

Gazette Officer

CERTIFICATE OF IDENTITY / RESIDENCE

PHOTO

This is certify that Mr. /Ms _____

Son / Daughter / Wife / Husband / Care of_____and

Date of Birth or Year_____ is known to me.

His/her photograph is attached and is duly attested by me. His/her current is

As under:

Current Address of Resident:

Devarachikkanahalli Slum,

Near RTO office, Bilekahalli Post,

Bengaluru - 560076

Certain NGOs, such as the Bangalore-based Parinaam, issue certificates of identity to the clients that they serve. Many of Parinaam's clients are wage laborers and among the city's extreme poor.

Examples of Introducers include school principals, representatives of local NGOs, and local government officials. Individuals can apply to be an Introducer through their state's Deputy Commissioner, or the UIDAI Regional Office itself may identify individuals to be Introducers. Once officiated, Introducers can go out into the community to identify individuals without documents, or they can remain at the Enrollment Centre to endorse individuals who walk in.

However, Introducers have not been responsible for as many new enrollments as the UIDAI initially anticipated. According to a government information request that was published in Scroll, as of October 2016 the Introducer mechanism had only been used for approximately 0.8 percent of total enrollments. Instead, a number of the policymakers we spoke to believe that a similar system, which relies on written letters of introduction, has been more widely used during enrollment.

These letters of introduction are included in the list of accepted POIs and POAs, and are referred to as a certificate of identity. Certificates of identity must be issued by a designated official – a Gazetted Officer – on letterhead.

Gazetted Officers can include local political leaders or NGOs.

As these certificates are considered POI and POA documents, they are not counted among the number of enrollments facilitated by Introducers. However, the intended effect is the same; *marginalized individuals – those who are least likely to have a POI and POA – are able to use these certificates to enroll for Aadhaar.*

For many Indian residents who do not have a fixed address, certificates of identity provide enough flexibility to ensure they are not excluded from Aadhaar enrollment. Instead of listing a specific house number, the official providing the certificate can describe an individual's place of residence. For an individual that lives in a slum, their address may simply be the name of the slum where they reside.

As a result, many families that live in slums have obtained their Aadhaar numbers under the same address. Residents of night shelters can also obtain a letter from shelter staff, listing the shelter as their address.

Another enrollment mechanism similar to Introducers is head-of-household enrollment. If a head-of-household has the required POI and POA documents, he or she can first enroll and then introduce other people in the family for enrollment. The head-of-household is not considered an official Introducer, so head-of-household enrollments are also not counted among the total Introducer-facilitated enrollments.

Enrollment centers and mobile enrollment

To enroll the approximately 1.3 billion residents of India, the UIDAI needed to ensure there was a comprehensive network of conveniently-placed enrollment centers across the country. Registrars have worked with enrollment agencies to organize the setup of these centers, while enrolment agencies have been primarily responsible for the operation of the centers.

In the early phases of Aadhaar enrollment, a large number of temporary centers operated alongside permanent centers. The goal of the temporary centers was to enroll individuals who previously did not have an Aadhaar number. As of July 2017, the UIDAI was managing an additional 5,419 temporary centers in areas where a significant number of residents were still not enrolled. Alongside these temporary centers, there were 24,779 permanent enrolment centers in operation as of July 2017. As India has already reached approximately 90 percent saturation for Aadhaar enrollment, these permanent enrollment centers are now used primarily for enrolling newborns and carrying out profile updates for existing enrollees.

Mobile enrollment centers are also critical to ensuring that all residents are included in the enrollment process. Mobile enrollment centers are used to reach people who are unable to visit temporary or permanent enrollment centers. This includes people in extremely rural and remote locations

and also individuals who are unable to walk, like some patients in hospitals and nursing homes.
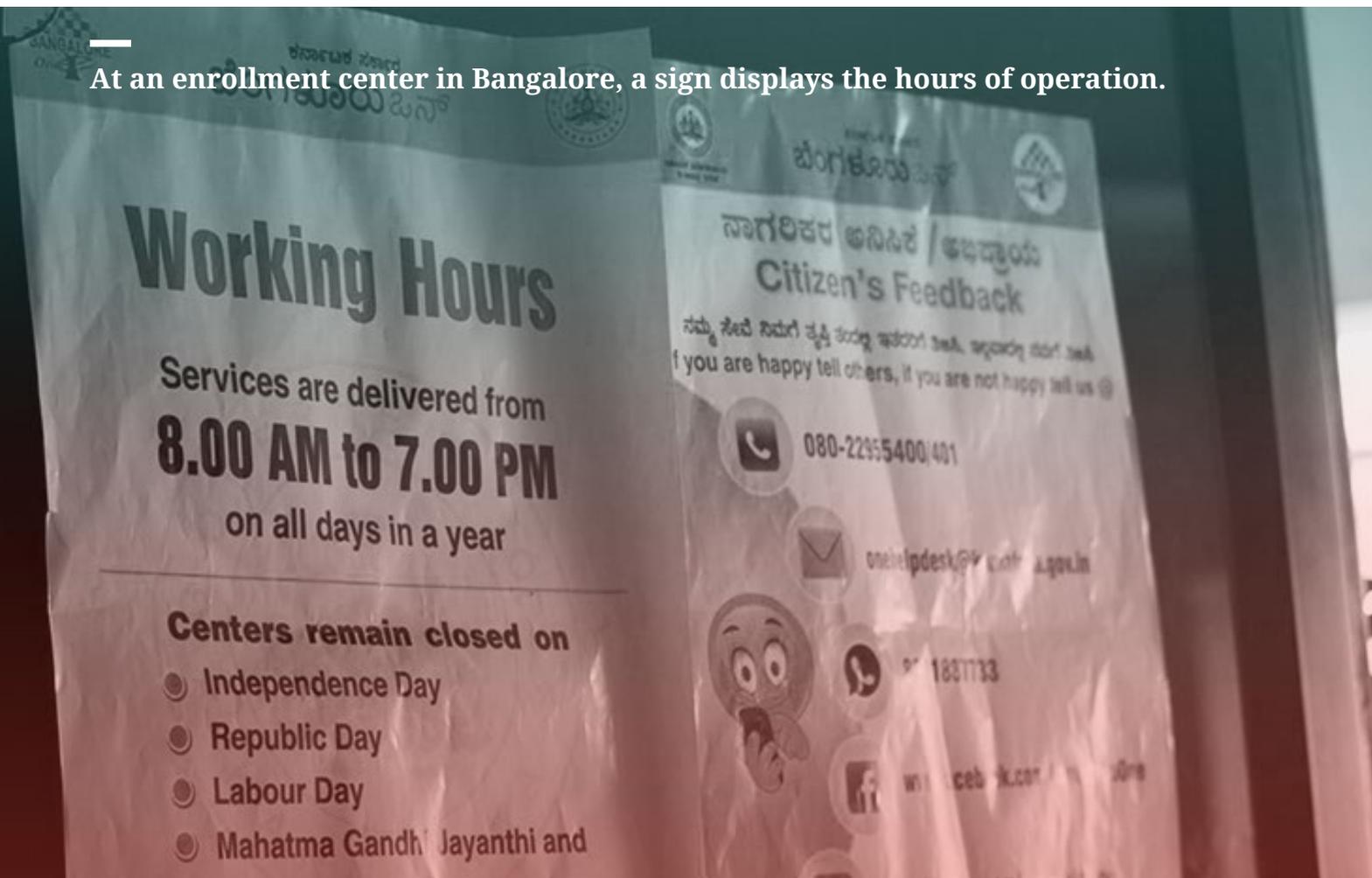
Aadhaar was designed so that enrollment could be done in a variety of locations. Enrollment can be conducted by one to two operators and the equipment required for enrollment is mobile. Mobile enrollment centers are typically vehicles outfitted with the equipment required for enrollment (laptop, printer, iris scanner, fingerprint scanner, white screen). In certain remote areas, four-wheelers are too big for the roads and so two-wheelers must be used instead.

In Karnataka, the success of mobile enrollment was partly attributed to the local enrollment operators, who know their communities well. In the state, district coordinators choose the locations where enrollment should be performed and then hire operators from those areas to perform enrollment. Operators undergo two days of training and an examination.

The operators choose what type of transportation is most suitable for an area, have relationships with people in the areas they work in, and understand the challenges involved in enrollment. The work of these local enrollment operators is discussed in greater detail in section 4.

At an enrollment center in Bangalore, a sign displays the hours of operation.

Enrollment center choice

To bring Aadhaar enrollment to India's marginalized residents, the UIDAI believes that there needs to be numerous points of entry into the system. Through the enrollment ecosystem – with numerous registrars and enrollment agencies throughout the country – the UIDAI is able to offer residents a choice about when and where to enroll, and whom to enroll with.

Offering residents, a choice about where to enroll makes Aadhaar enrollment more accessible and inclusive. The opportunity to enroll at a variety of different enrollment centers allows an individual to choose the location most convenient for them. This choice makes it more likely that an individual will enroll for Aadhaar, by allowing them to minimize the opportunity cost of time spent enrolling. If a particular enrollment center has a long line, or is far away from an individual's home or work, they can seek out one of the many other enrollment centers.

Having this choice is also important because it can reduce the discrimination that some individuals experience when seeking government services. In India, members of already marginalized groups may experience discrimination from government officials. This problem is exacerbated when an individual must visit a specific registrar or office to have a service provided, which is the case for the majority of government services

in India. With Aadhaar, if a resident is turned away from a certain enrollment center, they can visit any other center and request to be enrolled there.

Choice helps ensure greater inclusion for individuals who might be dissuaded from enrollment due to the opportunity cost or experiences of discrimination. As one interview participant put it, "choice creates reach."

Summary

Aadhaar enrollment was designed to be accessible to India's many diverse residents, with special consideration given to the inclusion of hard-to-reach groups. Aadhaar enrollment has been designed to be both free and simple, with no fee to enroll and less than 10 pieces of demographic information required.

In the enrollment process, provisions exist to ensure that individuals who are unable to provide iris scans or fingerprints are not excluded. Similarly, recognizing the difficulty that many already-marginalized individuals face when asked to provide Proof of Identity (POI) and Proof of Address (POA), the Unique Identification Authority of India has developed the Introducer system and a broad list of acceptable POIs and POAs. Further, the ability to choose when and where to enroll helps ensure residents are not dissuaded from enrollment due to discrimination or inconvenience.

CHAPTER 4

Active reach

Before an individual can enroll, they must first learn about Aadhaar and the enrollment process. Word of mouth is a common source of information about Aadhaar. However, reliance on word of mouth alone is insufficient for informing and enrolling all of India's residents.

Since the creation of Aadhaar in 2009, the UIDAI and its partners have used numerous methods of active reach to encourage enrollment. Widespread and multi-faceted public information campaigns have been a part of Aadhaar's enrollment success. The efforts of a variety of different partner organizations have also been critical in extending Aadhaar enrollment.

In both urban and rural areas, **the autonomy given to partner organizations to develop their own methods of active reach has led to greater enrollment among many of India's hard to reach communities.**

Public information campaigns

Though Aadhaar is well known throughout India today, the identification program did not have the same widespread recognition when the Unique Identification Authority of India (UIDAI) was first created. To encourage individuals to enroll, the UIDAI and its partners needed to ensure that Indian residents were aware of Aadhaar's existence, and how enrollment would benefit them.

In addition to this, organizations involved in enrollment had to make residents aware of when and where enrollment would take place. To do this, public information campaigns were designed and implemented by the actors involved in Aadhaar enrollment.

At the center, the UIDAI has produced a variety of informational materials to inform Indian residents about Aadhaar, and the benefits enrollment can provide. As most enrollment done in urban settings is by large enrollment agencies, these enrollment agencies have been important partners in the implementation of public information campaigns.

The UIDAI instructed enrollment agencies to set up public information campaigns before opening an enrollment center, and provided these enrollment agencies with a variety of UIDAI-produced informational materials. These materials included posters, print ads, and template radio announcements. Apart from the informational materials developed by

the UIDAI, enrollment agencies were also given the flexibility to develop local campaigns using their own materials. Similarly, Nodal Officers were given the autonomy to take initiative in the development and implementation of public information campaigns. At the Nodal Office in Karnataka, a celebrity from the local film industry was hired to produce a television ad.

Recognizing that the need for proof of identity is greatest among those who are poor and marginalized, the UIDAI developed communication materials specifically targeted to hard-to-reach populations.

These hard-to-reach populations include individuals in remote areas without access to television and radio, and also individuals with limited literacy skills – both groups that may be missed by traditional public information campaigns. Some of the techniques used to reach these groups include the development and production of dramas and songs, and the use of local announcement speakers to share information about Aadhaar enrollment and its benefits.

Enrollment operators, district coordinators, and local networks

Enrollment operators have played a central role in ensuring individuals from remote rural areas are reached by Aadhaar enrollment. In Karnataka, enrollment operators are recruited from the areas where they will conduct enrollments. This ensures that these operators know the communities in

Managing difficult terrain to reach the hard to reach

According to Sowmya Aji of India's Economic Times, in Chamarajanagar, a district in Karnataka which is largely covered in forest, enrollment operators know they must travel on two-wheelers to reach people in the district.

These operators must also navigate other challenges, including travel down narrow trails frequented by many animals, and gaining the permission of forest guards before entering certain tribal areas.

which they will be working.

This knowledge gives operators a better understanding of how to access especially remote areas.

District coordinators are also well-positioned to conduct outreach to local government and community leaders, whose support helps promote participation in enrollment. In Karnataka, district coordinators would reach out to local village leaders before enrollment operators travelled to a specific area to conduct enrollment.

Through advance communication with local leaders, district coordinators are able to convince community leaders of the value of enrollment, and in turn these leaders encourage community members to enroll. This communication is especially important in areas where residents are nervous about enrollment and the technology that it uses. To minimize these fears, enrollment operators are sometimes accompanied by these local leaders. This helps make residents more comfortable with the enrollment process and demonstrates that Aadhaar enrollment is officially-sanctioned.

In Karnataka, to communicate with local government and community leaders, WhatsApp is often used. WhatsApp is a free instant messaging application for smart phones that uses the internet to send text messages and make phone calls. This app is widely used in India. District coordinators and enrollment operators will use the app to provide information to local leaders on upcoming enrollment

opportunities. Information also flows in the reverse direction; local leaders and local youth groups use WhatsApp to share the information of individuals who have not yet been enrolled.
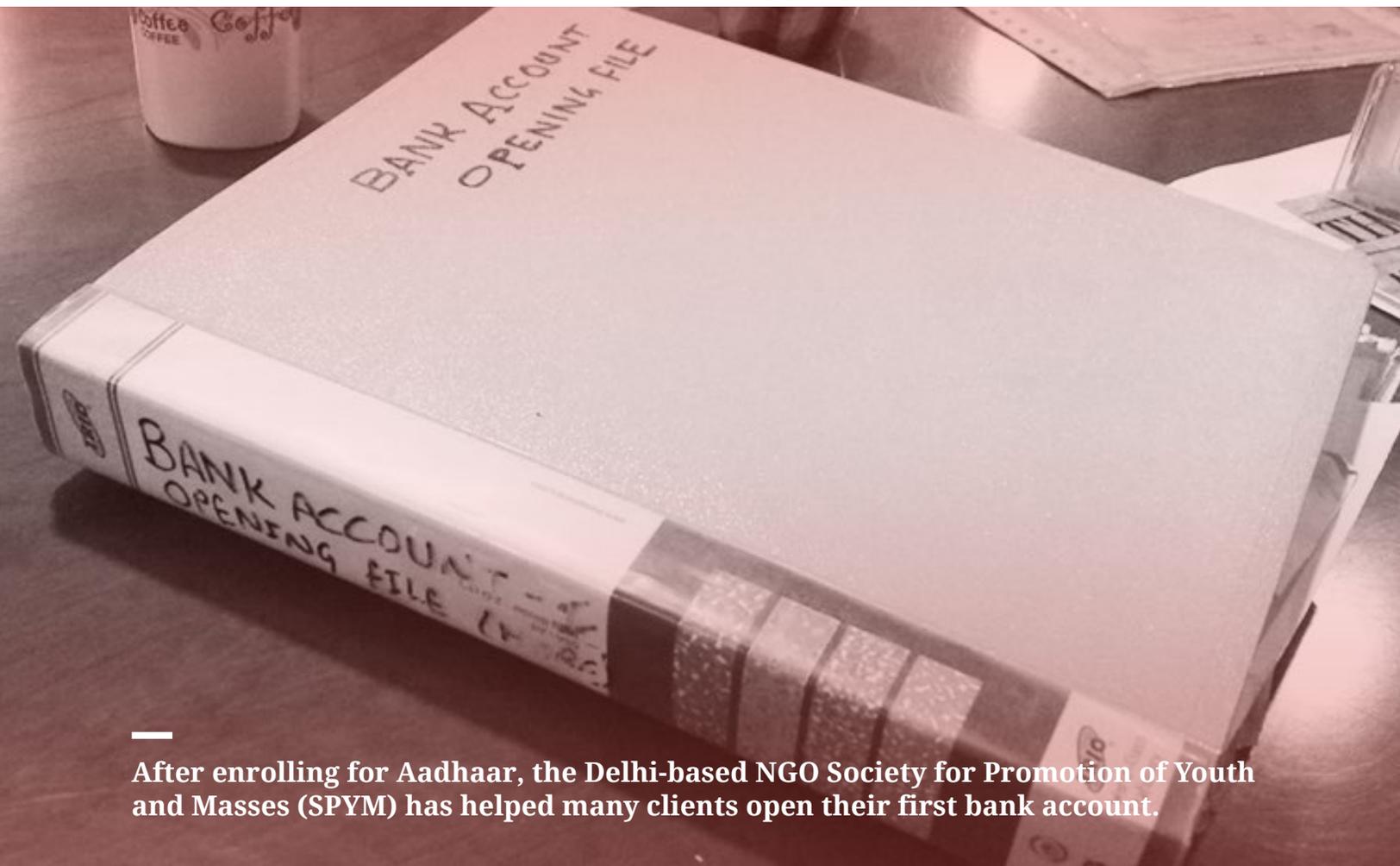
NGOs – tapping into existing networks

Some NGOs recognize the importance of proof of identity, and its role in facilitating access to a variety of services, and actively encourage their clients to enroll, and help facilitate their enrollment. A number of the NGOs we spoke with serve populations that have experienced poverty and marginalization. The efforts of these NGOs to help their clients enroll for Aadhaar is an important mechanism of active reach. However, not all NGOs in

India have been supportive of Aadhaar. While debate about Aadhaar is ongoing (section 6), we'd like to highlight some of the strategies used by NGOs to encourage Aadhaar enrollment.

NGOs encourage and facilitate enrollment in a number of ways. A number of NGOs we spoke to serve as trusted sources of information for their clients. By sharing information about Aadhaar enrollment and its benefits, these NGOs have sensitized their clients to the importance of Aadhaar.

This sensitization is valuable both as a way to encourage individuals to enroll, and also as a tool to ensure individuals are using and benefitting from their Aadhaar numbers. The Society for the

After enrolling for Aadhaar, the Delhi-based NGO Society for Promotion of Youth and Masses (SPYM) has helped many clients open their first bank account.

Protection of Youth and Masses (SPYM) provides an illustrative example. SPYM is a Delhi-based NGO that works with individuals who are homeless. Prior to the introduction of Aadhaar, SPYM and other NGOs that work with homeless populations were already undertaking a pilot project to provide proof of identity to homeless individuals, called the Beghar Card. When Aadhaar was initiated, these NGOs used the existing network they built through the Beghar Card pilot project to introduce Aadhaar.

SPYM staff also visits homeless shelters once a month to teach individuals about the uses of Aadhaar and the benefits and services they can access through it. These efforts have helped connect SPYM clients to services they can benefit from.

In addition to providing clients with information, some NGOs have been actively involved in the organization of enrollment drives. Parinaam, a Bangalore-based NGO that works closely with urban extreme poor, is one such organization. Parinaam coordinates with an enrollment agency to organize enrollment drives specifically for their clients. In advance of an enrollment drive, Parinaam will work closely with its clients to ensure they have the information and documents required for enrollment. For clients without the necessary POI and POA documents, Parinaam will serve as an Introducer and provide certificates of identity. In this way, the organization of enrollment drives also creates an opportunity for NGOs to serve as Introducers for their clients, either in person or through written certificates of identity. Through this work, NGOs bring Aadhaar to their vulnerable clients not reached by general enrollment drives.
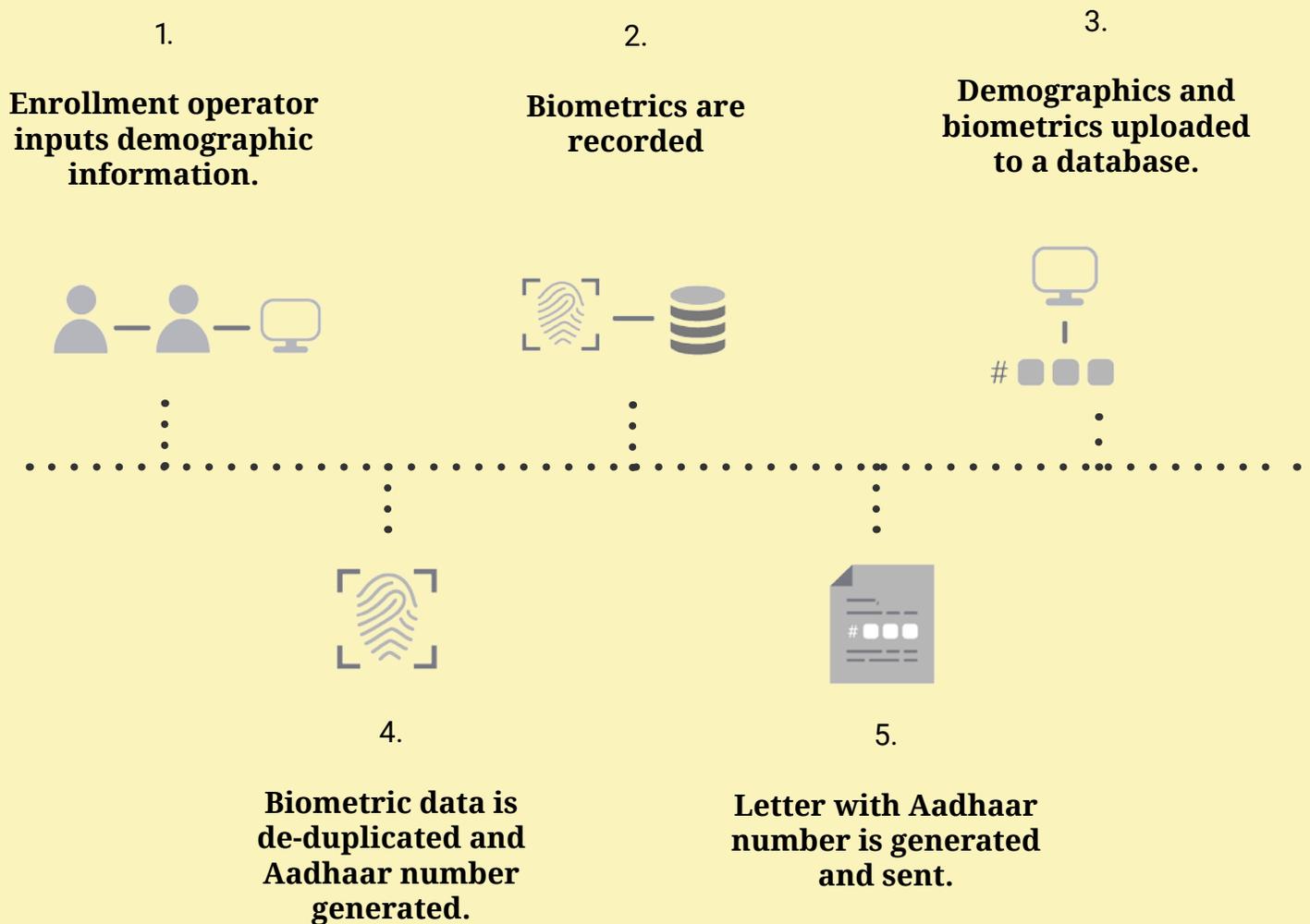
Summary

Active reach has driven enrollment among hard to reach groups in both rural and urban contexts. For Aadhaar, active reach was achieved by empowering local actors to leverage their networks. In rural contexts, enrollment operators and district coordinators have served as an entry point into remote communities. In urban areas, a number of NGOs have brought Aadhaar enrollment to marginalized individuals through their pre-existing networks of clients. In both cases, the flexibility and autonomy given to local actors has allowed them to use methods of active reach best suited to their target populations.

CHAPTER 5

Delivery

The generation of an Aadhaar number is not an instant process. Instead, after enrollment takes place, an individual's biometric data must be de-duplicated before an Aadhaar number is generated. Once an Aadhaar number is generated, it will be printed on a letter and mailed to an individual.

Through the efforts of India Post, the assistance of NGOs, and the existence of call centers and online portals, many individuals receive their Aadhaar number. However, there have also been reports of delays in delivery, and failures to have an Aadhaar letter delivered.

1.

Enrollment operator inputs demographic information.

2.

Biometrics are recorded

3.

Demographics and biometrics uploaded to a database.

4.

Biometric data is de-duplicated and Aadhaar number generated.

5.

Letter with Aadhaar number is generated and sent.

Delivery timeline

On paper, Aadhaar delivery is a relatively simple process:

1. Individuals provide their demographic information to an enrollment operator, who inputs it into the enrollment software. Individuals also provide proof of identity and proof of address.

2. Biometrics are recorded by the enrollment operator.

3. The demographic and biometric data are uploaded to a database by the enrollment agency and/or registrar.

4. An individual's biometric data is de-duplicated, and if successful an Aadhaar number is generated. Once generated, an individual's Aadhaar number can be accessed online through the UIDAI portal.

5. A letter with an individual's

Aadhaar number is printed and sent to them.

While the process is straightforward in theory, in reality there are many complexities and complications that make the delivery of an Aadhaar letter challenging.

For individuals who live in informal housing in large urban areas, or those in very rural communities, delivery of an Aadhaar letter often takes place despite the lack of a fixed address. Due in part to reported delays in delivery time, some internal migrants move to different locations before their Aadhaar letter is delivered.

In these situations, some NGOs have assisted in efforts to ensure Aadhaar numbers are delivered to these hard-to-reach individuals. But there are a number of cases when an Aadhaar letter is not delivered to the individual that enrolled for it, though the exact number of these cases is not known.

In these situations, online portals and call centers are channels through which an individual can obtain their Aadhaar number. However, these channels ultimately rely on the efforts of the individual to ensure the Aadhaar number reaches them.

The role of India Post

The Indian Postal Service – known simply as "India Post" – is the largest postal service in operation in the world. The UIDAI uses India Post, whose coverage extends to almost the entirety of India, to distribute Aadhaar letters. India Post's comprehensive postal delivery network is capable of reaching remote rural areas, as well as dense informal settlements in urban areas. Both often lack fixed addresses. This is possible because the staff of India Post knows the communities they work in, and are equipped to seek out individuals within them.

In urban contexts, using the name of a slum, the name of an individual, and the name of their spouse or other family members, a post officer is often able to ensure that an individual has their Aadhaar letter delivered to them. Similarly, in rural areas that lack fixed addresses, a post officer is often able use the name of an individual and the name of their village to deliver their Aadhaar letter.

As soon as an Aadhaar number is generated, a letter is printed and sent by India Post to the address provided during enrollment. India Post marks each envelope with a tracking number which can be used to track the Aadhaar letter as it makes its way to the address. The letter can also be tracked by SMS alerts and by calling an India Post hotline number.

Delivery through NGOs

A number of NGOs have helped ensure that Aadhaar numbers reach the specific individual for whom they were created. NGOs allow their clients to use the NGO mailing address for Aadhaar delivery

and by assisting with follow-up during the delivery process.

Multiple NGOs have allowed their clients to use their address for the delivery of Aadhaar numbers. When an NGO's address is used for Aadhaar delivery, a client is able to pick up their Aadhaar number when they visit the NGO for services or other forms of support. This method of Aadhaar delivery is used by several organizations that support individuals experiencing homelessness.

Through this delivery method, NGOs have helped ensure that individuals who are experiencing homelessness, or whose address is otherwise tentative, are not prevented from receiving their Aadhaar number.

Approximately 400 million members of India's workforce are internal migrants.

For migrants, the delivery of an Aadhaar letter can sometimes pose additional challenges. The challenges were especially apparent in the early days of Aadhaar enrollment, when there were reported delays in the delivery of Aadhaar letters.

Approximately 400 million members of India's workforce are internal migrants. Individuals who live away from their home village, district, or state for either a fixed or unpredictable amount of time often lack a portable proof of identity, which can be used to access services and benefits in other states.

Critically, these individuals are often not eligible to apply for voter identification cards or ration cards in their employing state.

The Disha Foundation has developed an approach to help distribute Aadhaar letters to migrant workers, who may already be in a different location by the time their Aadhaar letter is delivered. When one of Disha's clients has enrolled for Aadhaar, social workers from the organization will inform the local post office, and ask the postal office to notify them when they receive the Aadhaar letter. When a migrant worker connected to the Disha Foundation moves, they can also notify a social worker, who will follow up at the post office on their behalf.

When these Aadhaar letters are received by the post office, the Disha Foundation collects the mail and works to have it delivered to the migrant's new location. Through this method, the Disha Foundation helps ensure that India's internal migrants receives their Aadhaar number.

Online portals and call centers

Online portals and call centers also provide an important tool for individuals waiting to learn their Aadhaar number. The Unique Identification Authority of India (UIDAI)

runs its own online portals. Residents can log into the portals to check whether their Aadhaar number is in the process of being generated or if a letter is on the way.

In addition to tracking the delivery of Aadhaar letters, residents can access and download their Aadhaar number through a UIDAI portal. This downloadable letter with a resident's Aadhaar number is sometimes referred to as e-Aadhaar.

Call centers are also an important source of information on Aadhaar. These call centers not only help track the delivery process, they also provide information on the larger Aadhaar enrollment process. The UIDAI operates a call center for Aadhaar-related issues that can be used across India. States also have their own call centers for Aadhaar-related support.

For individuals that may not be able to access the portal or call centers on their own, NGOs and enrollment centers provide assistance. As with other aspects of the enrollment process, some NGOs have been instrumental in helping marginalized individuals follow up on the delivery of their Aadhaar letter.

Bangalore-based NGO Parinaam has frequently helped clients log into the online portal to track their Aadhaar letter's delivery, and to learn their Aadhaar number. We have also heard reports of individuals without physical cards returning to enrollment centers,

where enrollment center staff have downloaded and printed their Aadhaar numbers. These efforts help ensure that hard-to-reach individuals are informed of their Aadhaar number, putting them in a better position to use it to access benefits and services.

Difficulty in Delivery

While extensive planning has gone into the delivery of Aadhaar letters, instances of both late delivery and non-delivery have been reported. These delivery challenges limit the benefits an individual will gain from Aadhaar enrollment. Although call centers and online portals exist, the responsibility to follow up on the letter's delivery rests with the individual who is waiting to receive their Aadhaar number.

Summary

Through India Post's extensive delivery network, many Aadhaar numbers reach their intended recipients despite a lack of fixed address. NGO involvement has also helped to ensure that hard-to-reach individuals are more likely to receive their Aadhaar number. Online portals and call centers allow individuals to follow up on the delivery of their Aadhaar letter, and to access their Aadhaar number online. However, where challenges delay or prevent delivery, the individual enrolled must follow up to ensure they receive their Aadhaar number.

CHAPTER 6

Linkages

Proof of identity is a tool that can be used to facilitate access to services and benefits. Recognizing this, Aadhaar was designed to improve the reach of services and benefits through the creation of linkages. Linkages are created when an individual shares their Aadhaar number with another service provider.

Through linkages, individuals can use Aadhaar to prove their identity to service providers, so that they can access the range of services and benefits available to them.

The ability to create linkages between Aadhaar and other services and benefits has facilitated Aadhaar's reach by generating widespread demand for enrollment.

At the same time, Aadhaar's linkages have been a source of controversy, as reports of false authentication failures and data leaks have arisen.

Why create linkages?

From the perspective of individual residents, Aadhaar linkages have been designed to facilitate improved access to services and benefits. For individuals with limited or no proof of identity prior to Aadhaar enrollment, Aadhaar has provided them the ability to access a variety of government services and benefits for the first time. For other individuals, Aadhaar linkages have facilitated faster access to benefits and services that they were already receiving.

For example, the Mahatma Gandhi National Rural Employment Guarantee Act – more commonly known as NREGA – is a social program that provides rural households with a guaranteed minimum amount of paid work.

In Vijayawada, Andhra Pradesh, the delivery of NREGA wages used to take twenty to thirty days to reach a household. Government officials in Andhra Pradesh have found that since individuals have been able to link NREGA to their Aadhaar number, those same wages are now delivered in three to four days. Linkages have also been designed to reduce leakage from financial transfers.

> **From the perspective of individual residents, Aadhaar linkages have been designed to facilitate improved access to services and benefits.**

Through program linkages, money is now transferred directly from government coffers to the bank account of the beneficiary, reducing the impact of corruption and helping to ensure more money reaches those it is intended for.

Aadhaar linkages have also been designed to assist the government in delivering more efficient and effective services.

Through the creation of Aadhaar, the Government of India intends to reduce leakage from government benefit programs. Leakage can take a number of forms, including the enrollment of non-existent "ghost" beneficiaries and the double enrollment of individuals and households in programs.

Through de-duplication of fingerprints and iris scans at the time of enrollment, Aadhaar makes both types of leakage more difficult.

The money that is saved when these forms of leakage are eliminated is then made available for the government to use elsewhere. Aadhaar linkages also provide another benefit to government service providers: the ability to closely record and monitor the use of

government social programs.

The information gathered through Aadhaar can be used by the government to inform decisions about the use of resources and their distribution.

Authentication

Authentication is the process by which an individual provides a combination of biometric and/or demographic information, along with their Aadhaar number, to confirm their identity. Authentication allows individuals to access benefits and services linked to Aadhaar. There are four modes of Aadhaar authentication. The organization requesting Aadhaar authentication can specify which mode or modes they would like individuals to use to verify their identity.

Demographic authentication allows an individual to verify their identity by providing a combination of demographic information and their Aadhaar number.

One-time pin authentication allows an individual to have a time-limited PIN code sent to the phone number or email address affiliated with an Aadhaar number. The individual must then supply their pin code and their Aadhaar number for authentication. Biometric authentication requires an individual to provide their Aadhaar number and either their fingerprints or their iris-scan. Further to this, multi-mode authentication requires an individual

to use two or more of the above listed modes of authentication.

In all cases, the authentication information is submitted to the Central Identities Data Repository, and the response will determine whether or not the information provided correctly matches.

While many successful authentication transactions have taken place, there have been a number of reported failures to authenticate. It is not always clear why an authentication transaction fails – it could be due to poor internet connectivity, an individual's changing biometric information, improper recording of information at the time of enrollment, or something else entirely.

Despite these challenges, some states and union territories have managed the authentication process especially well. In Andhra Pradesh, a number of measures are taken to ensure that the authentication process is operating effectively.

In the state, government officials work to ensure that adequate internet connectivity is widely available. To do this, the government engages with cellular companies to conduct network surveys throughout the state. These surveys allow the government to determine where signal is available, and this information is used to determine the best locations for authentication to take place.

To reduce the incidence of authentication failure, fusion finger technology has also been introduced. With this technology, if there is a partial match of 50 percent between two fingerprints and the data in the Central Identities Data Repository, the system will accept the match. Similarly, officials in the state have worked to ensure that iris-authentication is widely available. These alternatives are particularly important for manual laborers, whose fingerprints can become worn down over time. Where authentication failure still takes place despite these precautions, a biometric update team will be dispatched to recapture an individual's biometrics.

This biometric recapture increases the likelihood that an individual will be able to successfully authenticate the next time they attempt to do so.

Direct Benefit Transfers

At present, Aadhaar is used by a number of government programs, with related services and distribution occurring primarily at the state levels. Entitlements are largely provided through Direct Benefit Transfers (DBTs). The primary purpose of DBTs is to ensure that transfers between the Indian government and its citizens, particularly monetary transfers, are delivered as quickly as possible directly into bank accounts or their equivalents.

A secondary reason for using DBTs is to minimize the impact of corruption and fund skimming by politicians or authorities. The scope for corruption is reduced when intermediaries are by-passed and instead the transfers move directly from government coffers to a beneficiary's account. With DBTs, the Aadhaar number is linked to an individual's bank account or equivalent. Government payments are then linked with Aadhaar numbers, and the amounts are transferred swiftly into accounts while simultaneously being tracked and recorded by the system.

Aadhaar linked programs

A number of programs provide Direct Benefit Transfers through Aadhaar linkages. Among them are the NREGA rural work guarantee program; liquefied petroleum gas subsidies, now known as PAHAL; Pradhan Mantri Grameen Awaas Yojana which provides funds to build or repair dwellings; and Sarva Shikshan Abhyan which provides benefits for children. Two additional Aadhaar-linked programs are:

Jan Dhan Yojana
In August 2014, the national government launched Jan Dhan Yojana, to help marginalized individuals access financial services. The program encourages the use of bank accounts, which facilitate the transfer of remittances, pensions, and other transactions. Accounts can be opened with no balance, and Aadhaar numbers can be used in place of all otherwise necessary documentation to open a bank account. All accounts opened under Jan Dhan Yojana automatically allow individuals to receive Direct

Benefit Transfers.

Mid-day Meal
The Mid-day Meal program provides impoverished children with a meal at school. The **aim of the program is to encourage parents to send their children** to school, instead of putting them to work. On March 2, 2017, it was announced that to continue benefitting from this program, children must register their Aadhaar numbers by June 30, 2017.

Mandatory Aadhaar

The linkage of services and benefits to Aadhaar has generated widespread demand for enrollment. In the Unique Identification Authority of India's words, the "Aadhaar system provides single source online identity verification across the country for the residents." Identity verification allows individuals to access a wide range of services and benefits. However, there has been widely reported uncertainty as to whether Aadhaar enrollment is mandatory for some services and benefits, and whether it would become mandatory for others. This confusion about whether Aadhaar is mandatory, and widespread beliefs that Aadhaar would eventually become mandatory, have contributed to Aadhaar's high enrollment rate.

As Aadhaar enrollment has become increasingly widespread, a number of government programs have made it mandatory to have a linked Aadhaar number in order to access a particular benefit or service. The Mid-day Meal program is one example. The question of whether Aadhaar can legally be made mandatory for access to benefits and services has been taken up with the Supreme Court on several occasions.

The question of whether Aadhaar should be mandatory for access to services has also been contested in Indian media, and the debate is still ongoing. For those who oppose making Aadhaar mandatory, concerns exist that this requirement would hurt individuals who have not enrolled, or those that have difficulty with authentication. For those who support making Aadhaar mandatory, there is a belief that proof of identity ought to be mandatory to access government services and benefits, and that Aadhaar is the most effective and appropriate system for proving identity.

Other concerns about Aadhaar

In addition to reports of authentication failure and debate about mandatory enrollment, there have been other concerns raised about Aadhaar. While an exhaustive review of Aadhaar-related concerns is outside the scope of this report, we'd like to highlight one other Aadhaar-related issue that has been raised.

As Aadhaar enrollment and linkages have become increasingly widespread, data security has been a growing concern for some. Activists worry that access to the UIDAI database is being sold to third-party companies like Skype. There have also been numerous reports of data leaks from the databases of service providers, which contain Aadhaar numbers that are used to

facilitate linkages. Some cybersecurity experts have been quoted stating that the data security measures are inadequate, and that there are many ways in which Aadhaar numbers and other information collected during enrollment can be compromised.

Summary

Linkages are supposed to improve efficiency in service and benefit delivery, and to ensure that Indian residents have access to the full range of services and benefits to which they are entitled. *The linkage of services and benefits to Aadhaar has created widespread demand for enrollment, while also igniting debates about whether Aadhaar enrollment ought to be mandatory for access to services and benefits.*

With the linkage of various programs and services to Aadhaar, other concerns have also been raised about data security and about individuals being wrongfully denied benefits. Efforts to improve linkages of specific benefits and services to Aadhaar are ongoing, as are debates about the nature of Aadhaar and its relationship to services and government benefits in India.

CHAPTER 7

Lessons learned

India is a country that is large and diverse – two characteristics which could pose challenges in the roll out of a national identification program. Yet, UIDAI succeeded in designing an identification program that has been capable of enrolling the vast majority of the population. In between the first enrollment in 2010, and May 2017, 89.6 percent of the population was enrolled for Aadhaar. Swift and widespread Aadhaar enrollment was accomplished by empowering other organizations – including government agencies, private businesses, and NGOs – to participate in enrollment, and through a commitment to ensuring enrollment is accessible for hard to reach populations.

While Aadhaar enrollment has achieved remarkable reach, some challenges with the identification program persist. In some parts of India, there have been reports of false authentication failure that can result in individuals being wrongly denied government services and benefits. There have also been ongoing debates on Aadhaar's data security, and some individuals question whether Aadhaar should be made mandatory for access to services and benefits.

Recognizing these challenges, Aadhaar nonetheless offers lessons to other countries struggling to provide proof of identity to their residents.

The importance of proof of identity is recognized in the 2015 Sustainable Development Goals, which call for countries to "provide proof of legal identity for all" by 2030. To meet this target, it is necessary to ensure that identification programs reach and enroll the extreme poor and other marginalized groups.

The case of Aadhaar shows us that it is possible to create proof of identity for those in rural and remote areas, individuals who live in informal housing, those who are homeless, and internal migrants, among others. Through Aadhaar, the Unique Identification Authority of India (UIDAI) and its partners have given many hard-to-reach individuals access to a powerful tool for inclusion.

What lessons can be learned from Aadhaar enrollment in India?

1. Incentives for participation and attention to hard-to-reach groups

Aadhaar enrollment operates through a network of government agencies and private businesses referred to as the "enrollment ecosystem".

The structure of the ecosystem – with competing organizations and compensation tied to new enrollments – has encouraged large-scale, rapid, and effective efforts to enroll residents. However, enrolling certain hard-to-reach individuals has proven time consuming and expensive. Where the cost of enrolling individuals outweighs the compensation provided, government

involvement has been necessary to ensure that remote and marginalized residents also benefit from Aadhaar.

2. Inclusion and accessibility

Aadhaar was designed to be an identification system that would benefit India's poor and marginalized.

To encourage India's poor and marginalized to enroll, the UIDAI worked to reduce a number of barriers to enrollment. Two features of the enrollment process are particularly noteworthy. Recognizing the difficulty that many marginalized individuals face when asked to provide Proof of Identity (POI) and Proof of Address (POA), the UIDAI developed the introducer system and a broad list of acceptable POIs and POAs. Together, these ensure that individuals without adequate identification are not excluded from enrollment.

Further, the presence of a large number of enrollment centers affords many residents the ability to choose where to enroll, helping to minimize the opportunity cost of enrollment and guarding against discrimination by service providers.

3. Active and targeted reach

To bring enrollment to hard-to-reach residents, the UIDAI enlisted and empowered local partners to conduct active reach. Local partners convey to residents the value of enrollment, and also facilitated or directly conducted enrollments. Through this approach,

local partners were able to target their efforts to the specific communities they work in.

4. Delivery

The UIDAI has delivered Aadhaar cards to many of India's residents by leveraging India Post's extensive network, which is capable of reaching individuals without a fixed address. NGOs have also made important contributions to the delivery process, by facilitating Aadhaar card delivery for migrants, individuals who are homeless, and others who have tentative addresses. However, not all cards are successfully delivered. To address this, online portals and call centers serve as channels through which an individual can follow up on the delivery of their Aadhaar card and obtain their Aadhaar number.

5. Linkages

At its core, Aadhaar aims to provide Indian residents with access to the variety of services and benefits. The ability to access services and benefits through Aadhaar has been an important driver of demand for enrollment. However, these linkages have also ignited debates about whether Aadhaar enrollment ought to be mandatory for access to services and benefits. Linkages have also raised concerns about data security and about individuals being wrongfully denied benefits.

OUR TEAM

Joseph Wong

Joseph Wong is the Ralph and Roz Halbert Professor of Innovation at the Munk School of Global Affairs, University of Toronto. He is also a Professor in the Department of Political Science, where he holds the Canada Research Chair in Democracy, Health and Development.

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Carol Drumm completed her Hon B.A. in Ethics, Society & Law, Political Science and Urban Studies. In addition to her work with the Reach Project, Carol's interests include conceptualizing policy solutions that promote sustainable cities and learning about the future of Indigenous governance in Canada.

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Shruti Sardesai is a recent graduate from the Munk School of Global Affairs, pursuing a career in humanitarian aid and policy impact. She is invested in gender justice, whether through research, activism, or in the humanitarian field. Outside her career, she works with stray animals and volunteers with local non-profit organizations.

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Cheryl Young is a fourth year medical student at the University of Toronto. She holds a Bachelor of Health Sciences (Honours) at McMaster University with a specialisation in Global Health. She is interested in ways that public health systems at home and abroad can improve on its social determinants of health in order to better serve marginalised populations.

Nikhil Pandey

Nikhil Pandey completed his Hon B.A in Economics and International Relations. Nikhil is now pursuing a Juris Doctorate at the Allard School of Law at the University of British Columbia. Apart from his involvement in the Reach Project, Nikhil is interested in research surrounding sustainable development, corporate regulation, and financial inclusion.

The Reach Project

It has been said that development is about delivery: the will and ability to deliver interventions to very poor and vulnerable people in order to help improve their lives. The development "space" is filled with great ideas and innovative solutions, from technological interventions to new policy initiatives. But the effects of these potentially game-changing ideas are severely mitigated if they do not actually get to the people they are intended to benefit. We think of this challenge in terms of "reach." Solutions can only solve problems if they reach those who need them most.

The Reach Project focuses on the delivery of development interventions to those who need them most and who are hardest to reach. We are a research initiative supported by a partnership between the Munk School of Global Affairs at the University of Toronto and the Mastercard Center for Inclusive Growth. The Reach Project is led by Professor Joseph Wong, along with other faculty members from various disciplines at the University. The Reach Project team is composed of researchers from across the University of Toronto. Together, we examine the delivery of social services to those who are hardest to reach in countries around the world.

The Munk School of Global Affairs

The Munk School of Global Affairs at the University of Toronto unites people who are passionate to address the problems of a fast-changing world. Our aspiration is to create a unique, world-leading centre of teaching, research and public engagement that builds the new field of global affairs from Canada. We are the home of students from all over the globe, world-renowned researchers, and more than 40 academic centres, labs and programs. From cyber-security and innovation policy to those seeking justice in a world of conflict, urban development and sustainability, the Munk School is projecting Canada's voice onto the world stage and expanding the boundaries of global affairs.

The Mastercard Center for Inclusive Growth

The Mastercard Center for Inclusive Growth advances sustainable and equitable economic growth and financial inclusion around the world. Established as an independent subsidiary in 2014, we leverage the company's core assets to drive action on inclusive growth through: research and insights, data philanthropy, global programs and knowledge-sharing. Through our partnership with the Reach Project and the Munk School of Global Affairs, the Center is committed to advancing actionable insights on programs and policies that successfully reach hard to reach low-income populations to help drive inclusive growth in developing countries.

The Reach Project

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