

Managing Massive Change

India's Aadhaar, the World's Most Ambitious ID Project

Innovations Case Narrative: Project Aadhaar

This case narrative is a follow-up to Professor Sathe's case regarding Aadhaar published in Innovations in 2011, in which he described the actions taken in the first year of the project and the early results. He has continued to track the project since then to learn about the challenges of managing massive technological, organizational, behavioral, and societal change, and this article provides an update on Aadhaar in five parts: (1) a description of the situation in March 2014 prior to the Indian general elections held in May 2014; (2) a comparison of the actual outcomes from the Aadhaar project as of March 2014 versus the assumptions made when conceiving its theory of design and change in the fall of 2009; (3) a similar comparison of the actual results versus the initial plans for addressing the Aadhaar execution challenges; (4) a description of the situation in June 2014 immediately after the general elections and; (5) the situation a month later, in July 2014, when the newly elected prime minister of the rival BJP political party, Narendra Modi, announced his plans for Aadhaar, given all the controversy surrounding it prior to and during the general elections in May 2014.

The author invites the reader to pause after reading the first three parts of this case narrative and to consider what is likely to happen next, based on the dynamics of the unfolding drama, before reading what happened next. This may make the story more interesting and also more instructive in terms of learning about the challenges of managing massive change.

This case narrative is based on information in the public domain, and on interviews with observers both inside and outside UIDAI, the government agency responsible for Aadhaar, some of whom were interviewed for the original case study. Professor Sathe wishes to thank them all for their time and their insights.

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THE SITUATION IN MARCH 2014

By early March 2014, 650 million people in India had enrolled for the country's unique, online authenticated¹ biometric ID known as Aadhaar. Half of India's 1.2 billion population had received their Aadhaar IDs on schedule, per the timetable developed nearly five years earlier, in mid-2009.² Field enrollments were expected to hover around 1 million a day, but UIDAI—the Unique Identification Authority of India, the organization issuing the IDs—was in fact able to process 1.5 million a day.

From the outset, the project's vision was to provide a fake-proof ID to each of the 1.2 billion individuals residing in India, half of whom had no nationally accepted ID because they had no birth certificate. The idea was to make the ID a ubiquitous "key" that would enable the entire population—especially the 500 million Indians living below the poverty line of \$1.25 per day—to access the public services and social benefits to which they were entitled but did not always receive because they lacked proof of identity. By March 2014, the rate of authentication had reached 300,000 on an average day, and it was expected to rise as the number of people with the Aadhaar ID increased, the number of devices available to authenticate grew, and the number of uses enabled by Aadhaar expanded.

However, these statistics did not tell the whole story. Although no systematic national survey about Aadhaar had been conducted, there were numerous heart-warming testimonials of how Aadhaar had enabled unprecedented access to banking and other services—especially for the poor and uneducated. Equally important, it had given these people a sense of empowerment and dignity. For example, a housemaid who did not trust the banks with her money ("They may steal it!") was amazed when her bank account, newly linked to Aadhaar, indicated that she had money in her account, even though she had not deposited any. This was due to a government social benefit scheme that had transferred the money—magically, in her view—into her account. Another example was a poor old man who savored the fact that Aadhaar to some degree had "leveled the playing field," because for the first time in his life he saw the wealthy and the well-connected lining up to get their Aadhaar IDs, just as he was—this was not something they could ask a servant to do. In the end, the old man carried the same proof of identity as the most powerful and privileged. Viewed in this light, Aadhaar was much more than an authenticated ID; it had the potential to transform a 3,500-year-old "closed-access" civilization for the privileged into an "open-access" civilization for all.

The transformative potential of Aadhaar first gained international attention back in January 2011, when *The Economist* reported on the scheme; the *New Yorker* ran a cover story on the project in October 2011.³ In April 2013, Aadhaar chairman Nandan Nilekani was invited to speak about the project at a gathering of World Bank staff hosted by World Bank Group president Jim Yong Kim, who said in his closing remarks, "I had heard about this project but had no idea how simple the design is. The implications for health care, for education, and for social protection around the world are simply stunning."⁴ He urged everyone to start

thinking about how such a project could benefit the rest of the world, particularly developing countries.

The Aadhaar project later drew favorable comparisons with the botched implementation of the website for the U.S. Affordable Care Act (“Obamacare”) in the fall of 2013. Those knowledgeable about both projects said Obamacare was in fact a much simpler IT project because it merely had to match health plan and demographic information collected from a fairly well-educated population, whereas Aadhaar had to collect and match not only demographic information but also fingerprints and iris scans for a population of 1.2 billion, the majority of whom were poor, uneducated, and without any form of identification. Unfortunately for the U.S. government, officials had put the website development in the hands of outside vendors, which in fact was also Aadhaar’s “Plan A” in the fall of 2009. However, the core technical team hand-picked by Nilekani were some of the most talented IT professionals in the world, and they ultimately decided to go for “Plan B.” Thus the entire project architecture was designed, built, tested, and operated in-house before it was contracted out for scale-up. This approach was more difficult but also more secure and reliable, as the technical team worked closely with the bureaucratic team, which also contributed to the project’s conceptualization and design.

Despite the unexpectedly high public demand for the Aadhaar ID, some people were fervently opposed to it, including some high-profile social activists and NGOs (non-government organizations, including nonprofits) whose mission was to care for the poor and underprivileged. Opinion was divided as to how many NGOs were actually opposed to Aadhaar, and why. Some argued that NGO opposition seemed greater than it really was because of the prominent personalities and loud voices of some who opposed Aadhaar. Others felt that the opposing NGOs were genuinely concerned about the marginalized poor who would not be able to access their social benefits via Aadhaar. Still others pointed to a less noble motive. As one NGO leader admitted, “We NGOs have been the guardians of the poor in India. Benevolent paternalism, yes, but it was necessary in a country with so many uneducated people and a government whose programs do not work as they are supposed to. But what if this particular government program (the Aadhaar ID) works? What if it really empowers the poor who then don’t need us any more? What is to become of us then?”

The rising tide of concern and criticism culminated in public interest litigation before the supreme court of India in mid-2013, when eight petitioners, most of them NGOs, asked the court to suspend the Aadhaar ID program. Their opposition was centered on three fundamental concerns. First, although advertised as a voluntary program by the central government, several state governments had made Aadhaar the required ID for those receiving such services as subsidized liquefied petroleum gas (LPG) cylinders used in homes for cooking; the petitioners and others opposed to Aadhaar had some heartbreaking stories to tell about those who could not get the LPG cylinders and other services they were entitled to

because they had not yet enrolled in Aadhaar, even though it was supposed to be a voluntary ID program.

The second concern was that Aadhaar was unconstitutional because it was being rolled out under executive rather than legislative authority. The third concern was data privacy. Since there was no national law to protect private information, there was no way to ensure that the data collected for the Aadhaar ID (name, date of birth, fingerprints, etc.) would not be misused. Of particular concern was the perceived violation of the right to privacy, because the technology had the ability to track a person through their use of online authentication, which was seen as equivalent to every resident of India being continuously watched.

The Center for Civil Society, the only NGO that filed a brief in support of the Aadhaar ID before the supreme court, countered the petitioners' concerns by pointing out that the government for years had collected sensitive personal data through mandatory schemes, such as voter IDs, the Permanent Account Number for filing tax returns, and smart cards containing fingerprints and photographs for health insurance schemes. Moreover, at least 70 other government schemes had been rolled out under executive rather than legislative authority over the years, and while data privacy was a valid concern and privacy legislation was pending, the Aadhaar ID offered far greater privacy protection than existing programs, such as the public posting of all registered voters by name and address in each voting precinct.

These concerns had been reported in the international press as far back as January 2012, when *The Economist* ran a cover story on the Aadhaar scheme and offered this opinion in its editorial:

India's scheme holds three lessons for other countries. One is that designing such a system as a platform for government services, not security, keeps costs down and boosts the benefits. Another is to use the private sector . . . The cost of enrolling each person is a little over 100 rupees (US \$2).⁵ Many other poor countries could afford that. And the third is that, alas, even a brilliant idea has enemies. India's stubborn home minister, P. Chidambaram, is now blocking a cabinet decision to extend the UID's [Aadhaar's] mandate⁶ . . . Parliamentarians and activists have raised worries over India's lack of strong privacy and data protection laws; they also complain about the weak legal basis for the scheme. These complaints have some validity, but not enough to derail the scheme . . . The threat to liberty would be dwarfed by the gains to welfare: to people who live ten to a room, concerns about privacy sound outlandish. Some of the resistance is principled, but much comes from the people who do well out of today's filthy system. Indian politics hinge on patronage—the doling out of opportunities to rob one's countrymen. UID [Aadhaar] would make this harder. That is why it faces such fierce opposition, and why it could transform India.⁷

In September 2013, India's supreme court issued an interim order that no one should be denied services or benefits simply because they did not have an Aadhaar ID. The court also required state governments to explain their stance on making Aadhaar compulsory.

The ruling Congress Party was defeated in assembly elections in three states in December 2013; in January 2014, the government of India announced that it was raising the number of subsidized LPG cylinders per household and suspending the program that had been rolled out to 291 of India's 600 districts, which had meant that consumers had to purchase the LPG cylinders at market prices, with the subsidy subsequently being deposited into their Aadhaar-linked bank accounts. Many consumers did not like the idea of getting the subsidy *after* paying market prices for the cylinders and wanted to receive it before or at the time of purchase, while others had not yet obtained the Aadhaar ID or linked it to a bank account into which the subsidy could be directly deposited. All this was reported in the press as a huge setback for the government's plan to transfer benefits directly into Aadhaar-linked bank accounts, which the ruling Congress Party only a few months earlier had touted as a "game-changer" in fighting corruption, in anticipation of the upcoming national elections.

By March 2014, with the Aadhaar case still pending before the supreme court, preparations were in full swing for the national elections scheduled in May. Observers wondered what the supreme court's decision would be and how it would impact the Aadhaar ID. Even if the court did not derail Aadhaar, many wondered what would happen to it if the United Progressive Alliance cobbled together by the Congress Party, which had championed Aadhaar since its inception, now suffered an electoral defeat, as many expected it would.

A ray of hope for those who favored Aadhaar was Raghuram Rajan, who had been appointed governor of the Reserve Bank of India (RBI; analogous to the U.S. Federal Reserve Bank) for a three-year term that would end well past the upcoming elections. The RBI had recently published its vision statement that included "providing a universal bank account to all Indians above the age of eighteen years," which a universal Aadhaar ID would certainly make possible. Even if other Aadhaar-linked benefit schemes were not implemented, the number of Aadhaar-linked bank accounts could grow considerably beyond the 50 million that already existed.

Even if the United Progressive Alliance lost the elections, many of those in favor of Aadhaar believed that the party coming to power would not be able to roll Aadhaar back because it had gone past the tipping point, per the original game plan. As one supporter pointed out:

Here are the facts. Gujarat state has actively adopted Aadhaar under leadership of Narendra Modi, the candidate for prime minister if the BJP [Bharatiya Janata Party] wins. By now, roughly half the population of Gujarat [60 million], have Aadhaar numbers. Similarly Tamil Nadu [a strong opposition state with a population of 72 million] stands third in the country, with 45 million Aadhaar numbers. Rajasthan and Madhya Pradesh [both states controlled by the opposition] have 40 million and 44 million Aadhaar numbers, respectively.

From this point of view, any government in power would not want to roll Aadhaar back because it offered the largest biometric database in the world, which could be used to deploy whatever pet programs the new government would want

to implement—that is, after it made any modifications ordered by the supreme court. This included passing legislation to make Aadhaar the law of the land and putting its own stamp on the project, perhaps even renaming it. As one observer put it, “The BJP or others may want to convert it to a national ID for security purposes and potentially link it to citizenship.”

When he took on the enormous challenge of making Aadhaar a reality back in July 2009, Nandan Nilekani promised a five-year commitment as chairman, which he was to fulfill before the general elections in May. Asked how he would judge whether he had been successful or not, Nilekani had reportedly said at the outset that to him success would mean 600 million Aadhaar IDs had been issued by mid-2014. By that measure, he had clearly succeeded. However, one knowledgeable insider disagreed with his assessment and also did not believe Nilekani had ever said that. He argued that the way to measure success was by the level of service delivery, transfer of benefits, access to bank accounts, and so forth.

There was speculation in the media that the powers-that-be in the ruling Congress Party had persuaded Nilekani to be their candidate for the parliamentary seat from south Bangalore in the upcoming national elections, and perhaps even saw him becoming the next prime minister if the Congress Party and its allies were reelected. However, even if they lost, the rise of the maverick *Aam Aadmi* (Common Man) party that vowed to fight corruption raised the possibility of forming a ruling coalition with Congress and its allies. In that case, dark horse candidate Nilekani could still be named prime minister—and with the approval of India’s president, Pranab Mukherjee, another strong supporter of both Nilekani and Aadhaar.

Several other key players from both the government and the private sector who had helped make Aadhaar a reality had either left or were expected to leave the organization within a few months. These departures were another cause for concern for Aadhaar supporters because the replacements would be chosen via the usual bureaucratic protocol, which picked the person next in line rather than the best person for the job. Thus the replacements were not expected to have the same zeal and dedication to the project as the founding team. One observer said his concern was not so much the replacements’ lack of dedication as the risk that the project would become another “regular government program” when it lost the founders, who had the aptitude for the “mission mode delivery” of this project within its very tight timeline.

THE THEORY OF DESIGN AND CHANGE FOR THE AADHAAR ID: ASSUMPTIONS VERSUS OUTCOMES UP TO MARCH 2014

The specific assumptions underlying the theory for making the Aadhaar ID a success were described in detail in a case study published in *Innovations* in 2011.⁸ In this section, I revisit and review some of the main points in that case study in light of the subsequent events. I present subheads and passages from the prior case (in

italics), which describe the situation concerning Aadhaar in July 2010, at the end of its first year. I then explain what happened up to March 2014.

Design Assumptions

A Number, not a Card, and Authenticated Online

The initial press reports referred to Aadhaar as a card with the example of Singapore in mind. However, others who knew how things worked in India feared that a card could be copied and tampered with easily, and lead to much more corruption. This concern ultimately led to the decision to design Aadhaar not as a card, but as a number that would be authenticated online.

The word “ID” referred to a physical card almost everywhere in the world—and India was no exception. The notion that the Aadhaar ID was a number and not a card, and the fact that the Aadhaar number did not constitute an ID until it was authenticated, proved to be a difficult concept for the masses to become accustomed to. Some individuals and establishments were accepting the “Aadhaar card” as an ID without authenticating it; the fact that there were far too few authentication terminals across the country did not help. The occasional news report said that fake Aadhaar IDs had been found, but there were no reports that this was happening on a large scale. One Aadhaar official commented:

It was difficult for the rule-makers to appreciate the concept of online authentication and adopt it. They insisted that the printed Aadhaar number card was necessary. I believe the masses were ready [to move forward without a card,] but the Aadhaar organization, in its eagerness to gain traction, relented, and now it has become more difficult to move to verification via online authentication.

A Demand-Driven Partnership Model, with Multiple Registrars

The project would leverage the existing government infrastructure at the center and at the state levels and would rely on partnerships with a number of “registrars” who would serve as agents to issue the Aadhaar numbers.

The state government was only one of the registrars in each state, and it did not want competition from the others. Thus they complained that the competition made it difficult for them to know how many registration stations to open in each location. However, independent observers believed that competition for enrollment—especially from public-sector banks—was one reason why the rapid increase in enrollment had exceeded all expectations. Another reason was the financial motivation of the private agencies that were contracted to serve as authorized enrollment agents.

Other entities would be part of the “Aadhaar ecosystem.”

With only 280 full-time staff within the Aadhaar organization, the “ecosystem” for the project included 100,000 contractors, other partners, and volunteers who were

striving to make Aadhaar a success. The Aadhaar applications ecosystem was envisioned as the following four waves, which were to quickly follow one another:

- Wave 1: Enrollment and creation of infrastructure by the central government and the enrollment registrars
- Wave 2: Initial applications for the public distribution system, the National Rural Employment Guarantee Act (NREGA), state services, LPG cylinders, and financial services
- Wave 3: Mainstream applications in health care, education, financial services, utilities, and telecoms
- Wave 4: Next-generation applications for consumers

In March 2014, Aadhaar was surfing Wave 1 and marginally engaged in Wave 2, with no scaling of operations (the LPG scheme, part of Wave 2, was suspended).

A Focus on Benefits for Everyone

The initial press reports had referred to Aadhaar as identification for all citizens, but its mandate was to include all residents of India. A citizens-only Aadhaar could be used as proof of citizenship, a burden the Aadhaar organization was neither intended nor equipped to bear.

The decision to make Aadhaar an ID for all residents of India—and not just for Indian citizens—created a great deal of controversy. Those opposed to the scheme complained that many illegal immigrants were getting Aadhaar IDs. Those in favor of the scheme argued that, in a country like India where 50 percent of the population had no birth certificate, it was never easy to tell who was a citizen and who was not. If the Aadhaar ID were limited to citizens, half the Indian population might be excluded. Furthermore, supporters pointed out, what about the thousands of migrants from Bangladesh who had come to India as they fled the bloody war that created that country in 1971? Those refugees were not citizens, but were they not residents of India? One observer speculated about a political motive:

In the USA, the Republicans want to throw illegal immigrants out and the Democrats want to grant them citizenship because—let’s face it—these new citizens are far more likely to vote Democratic than Republican! It is not so different in India. The Congress Party and its allies favor granting the illegals, many of whom are Muslims, citizenship because they will vote for Congress. The opposition BJP, strongly backed by those who dream of a “Hindu India,” want the illegals out because the chance of these people voting for them is nearly zero.

Change Management Assumptions

Gaining Political Support

In February 2010, a cabinet-level committee on UIDAI, chaired by the prime minister, approved the UIDAI strategy and the concept of Aadhaar-enabled micro-pay-

ments to facilitate adoption of Aadhaar. In her address to the spring session of the Indian Parliament on February 22, 2010, the president of India, Pratibha Patil, mentioned the UIDAI's establishment for issuing Aadhaar numbers.

Several observers believed that, with the exception of the home ministry, efforts to build political support with the central government departments, including the RBI, were generally successful. However, one observer disagreed:

The home ministry issue was only enrollment conflict. But most other ministries, including finance ministry bureaucrats, were generally not in favor of Aadhaar and did not try to align/integrate with it. The one notable exception was rural development headed by Jairam, who is a personal friend of Nandan Nilekani. RBI? Yes, but with limited impact so far.

It was rumored that Nilekani and the Aadhaar project had the personal support of both Congress Party president Sonia Gandhi and her son Rahul, and it was said that they had quashed opposition to Aadhaar within the party. As *Forbes India* reported in October 2013:⁹

Rarely has a major government initiative slammed into such a wall of opposition, cutting across political and ideological divides. Frankly, it is miraculous that the UID [Aadhaar] survived at all. That it did, and the array of strategies Nilekani used to outwit and outrun his many foes, makes for a riveting study...Nilekani phrases it diplomatically: "The problem was the need for large-scale social inclusion and for making public spending more transparent. The solution was Aadhaar. The government put political energy behind it and gave full support"... "I believe I have convinced the three who really matter" he is learnt to have confided in a few of the people he trusted (to *Forbes India* Nilekani denied ever having said this). Congress President Sonia Gandhi and Rahul Gandhi, her son and Congress vice president, were the first two . . . The third person who mattered was Reliance Industries chairman Mukesh Ambani . . . Nilekani says that heading the UIDAI "has toughened me a lot. I've now learnt how to deal with a lot of serious opposition, including sneak attacks from the activists, media and some agencies. My job [at Infosys] was much more genteel, but these are no-holds-barred environments."

Political support for Aadhaar waned after the ruling Congress Party was defeated in India's assembly elections in three states in December 2013 and the government of India then announced in January 2014 that it was suspending the program linking the sale of LPG cylinders to Aadhaar numbers. As one observer put it in March 2014:

This support [from the Congress party and its leaders] has been absent for the last six months to a year, as they realized Aadhaar is not gaining them votes. In fact, my sources suggest they have asked Nandan to go slowly on linking Aadhaar to benefits. Suspending the LPG program is one example.

The project had been presented to NGOs and other interested parties in a variety of settings, and their feedback was solicited. While attempts were made to reach out

to NGOs from the very beginning, no one had mobilized supporting NGOs to speak out in favor of Aadhaar to counter the loud opposition voices that grew louder as Aadhaar enrollments rose.

Secure Funding

The budget of the Indian government for fiscal 2010-2011 included Rs. 1,900 crore for the Aadhaar project, of which Rs. 1,300 crore was earmarked for the states and their registrars to pay for setting up the Aadhaar enrollment process, including communication and training for the enrollment agents. (One crore equals 10 million, so Rs. 1,900 crore equals US \$422 million at the then prevailing exchange rate of Rs. 45 per U.S. dollar, or 0.17 percent of the total Indian budget for 2010-2011 of US \$246 billion).

The government of India had continued to provide funding for UIDAI, the organization responsible for issuing Aadhaar numbers, every year since its inception in 2009. As of March 2014, a total of 3,500 crores (US \$777 million) had been spent on the Aadhaar project.

Building the UIDAI [Aadhaar] Organization

The first step: hiring the right people.

Nilekani had recruited a director general and deputy director generals (DDGs) for the project, all of whom had successfully run similar projects. Technical, marketing, and legal experts from outside the government had teamed up with their government counterparts as external consultants.

Knowledgeable observers gave Nilekani and his team high marks for successfully recruiting talented individuals with the appropriate experience from the public and private sectors, including volunteers. However, as one observer noted, “Unfortunately this did not sustain—the later recruits were not selected with as much care and personal interest. So I worry whether the project will be left in good hands when Mr. Nilekani leaves.” Recruitment from the nonprofit sector was more muted, which observers felt had not helped to counter the vocal NGOs that opposed Aadhaar.

Learning to work together across the cultural divide.

As with any merger between two different cultures, there was some anxiety and confusion on both sides about how to work with each other. With the benefit of hindsight, people could see it was two different worlds clashing. The private-sector world focused less on hierarchy, while those from the government world focused more on protocol.

While the two sides learned to work with each other more effectively, the fundamental differences in orientation, outlook, and focus remained a day-to-day challenge. As one insider with direct knowledge of the situation put it:

The issue became one of two worlds existing together instead of a “non-hierarchical” world prevailing for all. The ones who came from the private sector had

direct access to Mr. Nilekani; those from the government felt they had to bow to the hierarchy, were not heard, and their contributions were not recognized.

Avoiding bureaucratic wars: Aadhaar, under the Planning Commission, was focused on financial inclusion, corruption reduction, and protection of individual privacy; NPR [National Population Register], under the registrar general of India and the Home Ministry, was focused on national security . . . As one astute observer of government politics in India put it in June 2010: “It is now clear that NPR under the registrar general and the powerful Home Ministry will be a registrar for Aadhaar, but not the sole registrar as they apparently wanted. What is not clear is whether this has created some tension that will manifest itself as a threat to Aadhaar in some form that we cannot yet see.”

Resistance did manifest for both substantive and political reasons. The substantive reason was that the Home Ministry questioned the reliability of the Aadhaar data; for example, it wanted to publish a list of residents in a community before enrolling them in Aadhaar in order to identify and exclude those who were illegal immigrants. The political reason, according to speculation in the media, was that the Home Minister, Palaniappan Chidambaram, felt he had lost face because of the minimal progress made on NPR over the previous several years, which compared unfavorably with the Aadhaar “rocket.”

A compromise solution was finally reached in March 2012 after Chidambaram became the finance minister; it was rumored that Sonia Gandhi orchestrated this move behind the scenes. The new home minister agreed to split the country into two groups of states, one (which included Bihar, Uttar Pradesh, West Bengal—and nearly half the country’s population) where NPR would collect the Aadhaar data and then transfer it to the Aadhaar authorities to issue the ID, and another group where Aadhaar enrollment would continue under UIDAI and the data collected would be forwarded to NPR. An insider explained:

This simple solution of dividing the country half and half took one year and stalled the project. Unfortunately, the prime minister could not provide any leadership and Sonia Gandhi had to step in to solve basic stuff.

One observer added this update: “NPR could not manage Uttar Pradesh and Bihar; so through a cabinet decision in March 2014, the Aadhaar organization is now enrolling in Uttar Pradesh, Uttarakhand, Bihar, and Chattisgarh as well.”¹⁰

The first killer app: UID [Aadhaar]-enabled micro-payments

With Aadhaar positioned as “soft infrastructure,” comparable to a bank account or a mobile phone, and as a “utility” comparable to electricity, the first application being developed to kick-start the adoption of Aadhaar was an Aadhaar-enabled micro-payments. For the fewer than 20 percent of Indian residents who had bank accounts, ATM machines and ATM withdrawals were commonplace; now the aim was to enable everyone, including those living in the half million villages of India, to

have a Aadhaar-enabled “no frills” bank account for authentication-enabled transactions.

Aadhaar-enabled micro-payments had begun by March 2014, but they had not reached anywhere close to the scale required to declare the process a “killer app.” However, “electronic-Know Your Customer,” or “e-KYC,” was gaining traction in creating Aadhaar-linked bank accounts, and the hope was that this would make the Aadhaar ID a killer app. Residents could use it to authorize the bank to immediately obtain an electronic copy of the official Aadhaar letter that UIDAI issued to inform an individual of his or her Aadhaar number. This would provide a paperless, branchless way to create Aadhaar-linked bank accounts almost instantaneously, with full verification and compliance with KYC norms.¹¹ By March 2014, Axis bank, ICICI Bank, the Department of Post, the National Securities Depository Limited, and other institutions were actively adopting e-KYC.

The “coalition for financial inclusion”

The Aadhaar-enabled micro-payments concept was developed in collaboration with the RBI, and the ministries of finance, rural development, and other government ministries, as well as players from the banking and telecom industries—referred to collectively as “the coalition for financial inclusion.”

As one observer noted, “There were no synergistic strategies in this coalition except for RBI. The lack of buy-in and a consolidated go-to market approach is the reason for failure to scale-up.”

The aim was to achieve universal banking. The Aadhaar ID would enable the government to deliver services to the poor via direct benefit transfers into their bank accounts; it would also allow the banks to make money at the bottom of the pyramid because an Aadhaar-enabled bank account was likely to become the sole delivery channel for all government benefits.

There were over 50 million Aadhaar-linked bank accounts in India as of March 2014, but most banks showed little interest in opening new Aadhaar accounts for micro-deposits and withdrawals because they made little money on such accounts. To provide the banks with a fair incentive, the state of Andhra Pradesh offered the banks a 2.5 percent commission on all benefits payments deposited into Aadhaar-linked bank accounts, to be deducted from the beneficiary’s benefits, and this worked well enough that the Aadhaar organization recommended it become national policy.

Sources of expected resistance

The project anticipated that it would encounter resistance from entities such as the machinery implementing the public distribution system in the states, and the vested interests that benefit from the leakages.

After a number of pilots were conducted, it was decided that the value of direct benefit transfers would be demonstrated by linking distribution of the LPG cylinder

ders to Aadhaar-enabled bank accounts. As mentioned earlier, the government of India suspended this scheme in late January 2014, pending further study.

Parts of India were not only highly corrupt but also extremely dangerous, and here the implementation of the Aadhaar ID was expected to take much longer and face far greater challenges...One such region was the dreaded “red corridor” that stretches along seven eastern states of India.

By March 2014, enrollments had begun in Chhattisgarh, a state in the “red corridor.” In Jharkhand, which also had red corridor districts, 85 percent of the population had enrolled for the Aadhaar ID. In Tripura, another red corridor state, certain pension schemes were linked to the Aadhaar ID.

The Aadhaar “tsunami” to overcome resistance

With Aadhaar-enabled micro-payments as the exemplar, efforts were now underway to conceive of other Aadhaar-enabled products and services that could benefit residents—and that were also aligned with the intent of the policymakers and the interests of the delivery channels.

A few other applications had been developed, for example, to transfer student scholarship money into Aadhaar-enabled bank accounts, but these apps had not yet reached critical mass or tipping point by March 2014.

Summary: The underlying theory of design and change

The design theory was that if enough people saw the benefits of the Aadhaar ID and wanted it, they would push the system to make it work in a way that was non-corrupt and efficient. This is what had happened in the case of the mobile phone, and it was planned for Aadhaar.

Many people wanted the Aadhaar ID, and by March 2014 over 650 million had enrolled to receive it, but its value had not yet been demonstrated to the masses. Most of the demand was driven by “let me have it, just in case,” as described below.

The theory of change was that the critical early decisions would create a massive demand for a new-to-the-world category of products and services based on the Aadhaar ID. For this to happen, it was clear that the general public would have to see Aadhaar as a tool that could improve their lives, just as the mobile phone had done.

Public demand for Aadhaar grew steadily after the first person in India was enrolled in September 2010, and it then surged as awareness spread. However, unlike the mobile phone from which Aadhaar derived its inspiration, the great public demand for Aadhaar was not driven by its perceived usefulness. There were still far too few applications for Aadhaar (the wish list included health care, education, and much more) and relatively few authentication devices that could verify Aadhaar as proof of identity. Many people instead attributed the high public demand for Aadhaar to “the classic Indian mentality” that was conditioned by decades of experience with government schemes, as well as the unsubstantiated word-of-mouth that millions relied on in their everyday life. Misinformation

could also drive demand up: “Get an Aadhaar number before the numbers run out!” “Get an Aadhaar before they cap the scheme!” And the longer and more visible the lines for completing Aadhaar enrollment became, the more the herd mentality drove people to line up. Thus, although demand for Aadhaar had sky-rocketed much like it had for the mobile phone, people by and large enrolled for Aadhaar “just in case,” rather than because they saw it as a must-have benefit. It was not clear whether the hundreds of millions who had received an Aadhaar ID saw any value in it, other than as another form of identification that would be good to get now because it might be required in the future.

CHALLENGES TO EXECUTION: PLANS VERSUS RESULTS

In this section, I revisit and update the execution challenges that were described in detail in the prior case study, again using the same headings and passages from the prior case (in italics) to compare these plans made in 2009-2010 with the actual results achieved by March 2014.

Technology Challenges

The key to the technology challenge is India’s enormous scale and scope

The system was being designed to scale-up to a database of 600 million Aadhaar IDs within five years, at which point the enrollment rate was expected to peak at around one million to two million new Aadhaar enrollments per day. All these new applications would have to be de-duplicated against the 600 million records already in the database, and within 24 hours, before the next batch of one million to two million new applications arrived. With a billion IDs in the database, no one really knew how the system would cope. No one in the world had tried it on this scale before!

There was wide consensus that the Aadhaar project had successfully met the many new-to-the-world technical challenges it had faced. For example, by March 2014, the error rate in terms of false positives and negatives was less than 0.01 percent, but this still meant that there would be about 60,000 de-duplication errors in a database of 600 million. These would have to be monitored and investigated by the quality-control staff.

Enrollment (660 million by March 2014) had always exceeded the number of Aadhaar IDs issued (584 million by March 2014) by a wide margin for three main reasons, which created delays of six months or more between the time a person enrolled and when they received their ID. The reasons were (1) pace of enrollment had far exceeded the most optimistic projections; (2) the quality of the data being gathered at enrollment stations had improved steadily, due to tighter standards for operator training and certification, but it remained a challenge because of the sheer scale of the project (more than one million enrollments per day from over 50,000 enrollment centers); and (3) algorithms and software for matching fingerprints and other biometric information had been improved steadily, but even a small percentage of cases kicked out by the system for being potential false posi-

tives and negatives required manual checking that was labor intensive and created delays.

The challenges in delivering fast and accurate online authentications—round trip from terminal to Aadhaar servers and back averaged 6-7 seconds for 300,000 online authentication requests per day in March 2014—were aided by the discovery that every individual had one or two “best fingers” (typically the index and middle finger) that reduced the error rate substantially if used for authentication.¹² By March 2014, the system could tell each person who was falsely rejected during authentication which finger they should use for best results.

The technical challenge was to scale up, by a factor of ten or more, systems for financial inclusion that had been successfully implemented in pockets of India. One response to this challenge was using world-class vendors. The world’s biggest IT companies, including the U.S. firms IBM, Hewlett-Packard, and Accenture, as well as the Indian giants Wipro, TCS, and Infosys, were expected to bid for the Rs. 1000 crore (US \$222 million) MSP (managed service provider) contract. For the biometric devices, Wipro, NEC, and Sagem had submitted bids for the US \$10 million to \$15 million contract.

During the few months in the 2011-2012 timeframe that it took to get the necessary government approval for such a big MSP contract, the technology had advanced to the point that a major rethink was needed to take full advantage of it. This delayed the decision of which firm would be awarded the MSP (HCL eventually won the contract) and widened the already large gap between enrollments and issuance of the Aadhaar ID.

Despite these delays, observers applauded the skill and savvy with which the Aadhaar platform had been built and tested by a small core team of technical experts. This was the team recruited to form the nucleus of the Aadhaar technical development center before the scale-up. Cutting-edge data security and fraud prevention technology were also built into the Aadhaar platform design.

However, these technical accomplishments received scant coverage in the press and other media, which focused instead on public concerns about data privacy. Anti-business media portrayed Aadhaar as a government project rigged to give big contracts to favored private companies, and in the fall of 2013 concern was expressed that the Aadhaar database might be compromised because one of the vendors also had a contract with America’s CIA, as was reported in the U.S. media in connection with the U.S. government’s National Security Agency scandal involving a breach of the privacy of American citizens.

Demand Generation Challenges

Here the first challenge was building and communicating the brand Aadhaar. The marketing and advertising campaign for Aadhaar would support its positioning as a reliable family brand.

By mid-2011, about a year after the launch, 40 million people had enrolled in Aadhaar and 17 million of them had received the Aadhaar ID. Early demand was

higher than anticipated, and many observers credited the advertising campaign for this. The surge in demand that followed the campaign was seen as driven by word of mouth and the “Indian mentality” that it was wise to get the Aadhaar number “just in case,” as previously described. By March 2014, the Aadhaar brand was recognized throughout India, but its association in people’s minds as a “reliable family brand” had yet to be fully established.

Enrollment Challenges

Some state governments were not looking forward to competition from other registrars . . . [For example, the central government’s]Department of Posts had 155,015 post offices [across India], of which 90 percent were in rural areas. It remained to be seen if the state governments would...try to slow down the use of other registrars.

By mid-2011, enrollment for the Aadhaar ID had been under way for about a year. Enrollment varied across the states of India, in part because of the speed at which and the extent to which each state government pursued it. Although the state governments were not the only registrars (others included the Department of Posts, public banks, life insurance firms, and oil companies), they were important drivers of enrollment. Some state governments took a “wait and see” approach because ID schemes of one sort or another had been floated many times over the previous 20 years, but none had materialized. Furthermore, the Aadhaar ID was not even mandatory, so they were not certain the model was going to work. By March 2014, however, these early problems had been ironed out and Aadhaar enrollments continued to rise. As one insider pointed out:

[Enrollment] has become a non-issue. Initially, in Phase I, there were problems between the state governments and the non-state registrars. However, by Phase II, systems were created and followed methodically to enable a clear distribution of geographies between various agencies and, as such, the Aadhaar numbers kept increasing with the combined efforts of all, even though the Department of Posts had stopped enrollments altogether since late 2012.

The accuracy, completeness, and reliability of the data being collected at the enrollment centers were a concern during the first year of the rollout, but quality improved steadily as operator training and certification improved. However, as one observer noted in March 2014, quality “has improved but remains a large challenge. I don’t think sufficient strengthening of training/field supervision has happened. Field monitors and data entry supervisory staff were recommended but this has not been implemented.”

Another major issue that remained a challenge in March 2014 was enrolling those without any proof of identification—precisely the people the Aadhaar project was aimed at. They were allowed to enroll for an ID based on the testimony of “introducers,” such as community workers and NGO personnel who could vouch for their identity. This scheme also came under public criticism, as stories circulated of illegal immigrants who had acquired the Aadhaar ID with the help of cor-

rupt or incompetent introducers. As a result, introducers had to be vetted by the local authorities and had to have an Aadhaar ID themselves. Migrant workers who did not know anyone locally continued to have great difficulty enrolling for an Aadhaar ID. According to one observer, “The introducer scheme totally failed. People had to get a government certification/letter to enroll for the Aadhaar ID, which is a huge challenge for those without any proof of ID.”

Addressing Privacy Concerns

Privacy concerns would be addressed explicitly in the legislation authorizing Aadhaar IDs that was being prepared for the monsoon session of the Indian Parliament starting August 2010. For example, it would be illegal to acquire Aadhaar information except under a specific court order.

The parliamentary committee headed by opposition member Yashwant Sinha raised concerns about the Aadhaar legislation, and it was in fact tabled in the fall of 2011.¹³ The committee’s objections had been similar to those raised by the petitioners in the case against Aadhaar that was before the supreme court in March 2014. Some observers felt that the government should have made a concerted effort to get the legislation through parliament; others felt it was a lost cause, given the strong opposition, and that the government was wise to proceed with Aadhaar under executive authority and to use whatever leverage it had in parliament to push through legislation on other pet projects. Still others felt that, from 2009 to 2014, the parliament was deeply divided, was paralyzed by a weak and ineffective central government, and had set a new low for legislative accomplishment. Supporters reasoned that the chance of getting Aadhaar legislation passed by such a dysfunctional body was nearly zero. As one observer put it in March 2014, “The legislation was not taken up and now the next *Loksabha* (parliament) will have to consider it and so the uncertainty remains.”

Could Aadhaar Hurt the Poor?

There was some concern that the Aadhaar ID, a tool designed to benefit the poor, would become a tool for their oppression.

As of March 2014, there was no evidence that Aadhaar had been used as a tool to oppress the poor or anyone else.

Some people believed that the new “national grid policy” raised far bigger privacy concerns than did the Aadhaar ID. Following the terrorist attack on Mumbai in November 2008, the Home Ministry announced its policy of improving national security by getting various agencies (such as the NREGA, the police, the national security forces, and the income tax department) to more efficiently share the information in their databases.

As of March 2014, privacy remained one of the key concerns for those who opposed the Aadhaar ID.

THE SITUATION IN JUNE 2014

A record 554 million people (66 percent of the 840 million registered) voted in the Indian national elections in May 2014, making it the world's largest democratic exercise ever.¹⁴ Narendra Modi led his Bhartiya Janata Party to a historic landslide victory, as reported in *The Economist*:

Mr. Modi won the election by a margin nobody imagined was possible...marking a national political shift as big as any since independence in 1947. Mr. Modi smashed the long domination of [the] Congress [Party]...The BJP alone took 282 of 543 seats. Add its closest allies in the National Democratic Alliance [NDA] and the tally is a handsome 336. Congress got just 44.¹⁵

In mid-June 2014, the future of the Aadhaar project remained uncertain. Speculation as to whether Modi would maintain, modify, or kill the Aadhaar project continued. iGovernment¹⁶, a web portal for knowledge-sharing owned by a media company, commented as follows:

As Narendra Modi-led BJP government places itself firmly in power, a big question mark looms over the continuity of UPA's [Congress and its allies, the defeated United Progressive Alliance's] controversial Aadhaar project—the Unique Identification Authority of India (UIDAI).

- The Union home ministry that fought a bitter but losing battle against Nandan Nilekani's UIDAI under the UPA regime for collection and safe keep of biometric data of residents (citizens and non-citizens) is hoping to open up the closed subject again.
- Top sources in the home ministry said they are planning to raise objections about the efficacy of Aadhaar scheme and to pitch their own multi-purpose national identity card (MPNIC) scheme based on national population register (NPR) to Narendra Modi.

Incidentally, the NPR project was initiated by the NDA government under [Prime Minister] Atal Bihari Vajpayee in 2002 on the recommendations of a Group of Ministers (GoM) that took the decision on the basis of Kargil Review Committee, appointed to look into flaws in the system in the wake of the Kargil War in 1999.

- The GoM called for giving all citizens MPNIC and issuing non-citizens identity cards of a different color and design to check infiltration and ensure national security.
- When Congress-led UPA government came to power in 2004 it carried forward the plans of the NDA government but enlarged the scope of MPNIC project to use it to check subsidy through targeted welfare schemes. This change from security-centric to welfare approach resulted in replacing MPNIC project with UIDAI [Aadhaar].¹⁷

According to one insider, Narendra Modi had asked UIDAI to prepare for a review of the Aadhaar project before the end of June 2014. It was anyone's guess what would happen next.

What Could Nandan Nilekani Have Done Differently?

In his commentary accompanying the Aadhaar case in *Innovations* in 2011, Robert Klitgaard suggested what Nilekani should focus on in his second year in office (2010-2011):¹⁸

A final suggestion concerns strategic focus. Some advocates of Aadhaar envision the replacement of subsidies with cash payments. But though the potential gains are large, this is also a domain where resistance could be severe, from public agencies with vested interests, from the corrupt, and possibly from poverty experts who note potentially negative side effects. Recall that the “killer app” is about banking. The mini-ATM in a cell phone will have fewer opponents and many more allies than the replacement of the subsidy system. In the spirit of the marketing tsunami where success breeds success, Mr. Nilekani might keep his focus in year two on no-frills bank accounts accessible through cell phones.

Looking back with 20/20 hindsight in June 2014, one observer wondered if the controversy surrounding Aadhaar might have been more muted or entirely absent if, as Klitgaard had suggested, Nilekani had moved more slowly on replacing subsidies with direct cash transfers. Then the backlash on the LPG issue might have been avoided. By focusing instead on the no-frills bank accounts strongly favored by the Reserve Bank of India, which no one was really opposed to, the banks likely would have embraced them if the e-KYC standards had been developed earlier and the banks had been offered a commission on benefit transfers into Aadhaar-linked bank accounts from the outset.

This also raises the question of whether the NGOs that were opposed to Aadhaar would have still filed the lawsuit in the supreme court to stop it. Might these NGOs even have helped implement Klitgaard's suggestion to focus on no-frills bank accounts?

With perfect hindsight, another observer asked these key questions:

Since the inspiration for Aadhaar was the dramatic success of the mobile phone, would it have been better to focus all initial attention on only those aspects, features, and implementations that were clear winners for the individual in order to make it a “got to have” versus a “nice to have”? Cash transfers to replace subsidies were opposed by the “poverty experts”; and many individuals—especially the poor strapped for cash—did not like to pay up front for LPG or other items they previously received as benefits, and receive cash in their bank accounts only later. What would have happened if only the non-controversial, “upside only, no downside for the person getting the Aadhaar ID” projects had been

the focus . . . till Aadhaar had been firmly rooted and widely accepted like the mobile phone was, before turning the strategic focus to the worthy but controversial public policy aims of increasing transparency and boosting efficiency in the distribution of public benefits and reducing corruption?

Another observer commented:

Focusing on enrollment and linking it to bank accounts could have been a good strategy . . . the opposition would still have been there—on the threat to privacy, non-constitutional nature of Aadhaar . . . [and] on the duplication of efforts with NPR (by the ministry of home affairs among others)—but that would have been easier to deal with. In fact most “regular government schemes” would have done it this way . . . and perhaps the impatience of the corporate world is to blame in trying the parallel-tracks of getting authentication and applications started while enrollments were still in progress.

One former member of the Aadhaar team put it this way:

In fact, post LPG backlash and [the] slow pace of subsidy linkages, the focus strongly shifted to e-KYC for banking and telecom, but this was probably not a strong enough case for the government and the politicians to sponsor the program, though it provided cost efficiencies to banking/telecom service providers and improved access to residents in general.

What Nandan could have done differently is to demonstrate subsidy efficiency gains via direct cash transfer in a more robust and scaled manner—the pilots were too small and were not publicized appropriately—for example, covering a whole district or small state with two to three subsidy programs exhaustively, thereby demonstrating bogus, fakes, and duplicate cards and quantifying money saves. Also, he could have done more to ensure political blessings and will power from government big-wigs to overcome vested interests.

One person who had observed the Aadhaar project since its inception offered an extended commentary:

What could Nandan have done differently? . . . First, there was way too much premature publicity about the efforts and initiatives being taken, and so the project had opponents even before it had a reasonable chance to show substantial results.

The publicity was always linked to Nandan, the person . . . and so there were times when Nandan haters/opponents piled on to criticize the project just because they got an opportunity to take potshots at him. I must however add that there were several occasions where Aadhaar gained from the popularity, charisma, and credibility that Nandan, the individ-

ual, had. But that was at the beginning, before the public started sensing his political aspirations and also his “proximity” to Sonia and Rahul Gandhi.

Quiet, low-key work on some of the Aadhaar applications got into trouble not just because of premature publicity but also professional jealousy. The public distribution system work, which started in Andhra Pradesh, was started without any fanfare, but when the top team at Aadhaar took over and went all out in giving publicity, that brought in the detractors.

The project needed completely committed people who would work 24 x 7, and that was what the initial group was. When the ardent, passionate, and competent officers within Aadhaar started leaving, the people who came [to replace them] did not really care for the project, nor did they understand and appreciate the amazing potential and features of Aadhaar. I heard that Nandan did not take personal interest in getting as good people as the ones who were leaving. In fact, some were leaving because they did not get their share of recognition or space to work. Nandan was already making his exit plans by then and was working to just achieve a couple of targets before he left—600 million Aadhaar enrollment by March 2014, which he achieved, and the passing of the . . . legislation for Aadhaar, which he could not.

[He could have] resolved the NPR/UIDAI issue in a more conclusive manner—of ensuring one (Aadhaar) instead of two similar/overlapping databases. I hear he worked very hard at this but could not clinch it completely. In the end UIDAI just smoked the peace-pipe and decided to coexist in a manner that any rational person would understand was foolish. Now the Modi government is attempting [to resolve this issue], but with NPR being the preferred choice.

A few killer apps from the private sector to get the Aadhaar population hooked on Aadhaar would have brought public resistance to it down. And Nandan had the power to get the private sector to do so. However, UIDAI was only concentrating on government apps, and the private sector was mostly the IT industry trying to get more and more government contracts for doing Aadhaar-related work—for the government!

Probably the most important concern [was that there] were too many pilots for direct transfer of subsidies and benefits and . . . they did not warrant selection. Meanwhile, the state governments were being pushed with brute force into falling in line and within unreasonable timelines. It was very evident that the government was eager to showcase [Aadhaar] as its achievement in an election year [assembly elections in the fall of 2013 and the general election in May 2014]. All the publicity campaigns of Congress touted this project as their achievement, which forced all the

opposition parties to criticise it in their campaigns. Ananth Kumar, a supporter, suddenly turned foe when Nandan stood against him in the recent election, and he got Narendra Modi to denounce it publicly.

One can go on and on. However, having said all this, I am an eternal optimist. The new Modi government will be out of its mind if it ends this project. It may change the complexion of the project by merging it with NPR and bringing it under Home Ministry, but a strong Aadhaar team running it would keep it on track. If the Registrar General of India [from the Home Ministry] were to run it, God help us! And if the current top management of Aadhaar were to continue but from Home Ministry also, I think there is no hope. But optimist I am because (1) many have grudgingly seen the benefits of more than half the population having Aadhaar; (2) Nandan continues to work behind the scenes for Aadhaar and he has friends even in the present ruling party; (3) the first Director General of Aadhaar is now the IT Secretary in the government of India and he understands and believes in Aadhaar and in his present role can and will be the saviour; (4) there are some people who still quietly labor . . . to put Aadhaar in an irreversible trajectory, and I hope their hands are strengthened; and (5) enrollment continues to be pushed and Aadhaar apps continue to be piloted with very good results, and the less publicity they get at this stage, the better.

Another person close to the scene preferred to see things from a historical perspective:

There can be little doubt that the aims and accomplishments of the Aadhaar project are praiseworthy. In the management of change, and especially in the management of as massive a change as this one, the potent seeds planted (such as a fraud-proof ID with the potential to create a more open-access civilization) may die, but more likely [they] will germinate and reappear in the same or modified form later in their own time.

THE SITUATION IN JULY 2014

On July 4, 2014, an article appeared in *India Abroad* with the headline, “India Is Apparently Prepared to Throw Out a Biometric System That Has Enrolled about 639 Million”:¹⁹

[According to] the news last week, Aadhaar is likely to be transferred to the home ministry to ensure that those with Aadhaar numbers are bona fide citizens. This is a backward step, a reversion to the mindless turf battles of the Congress-led government where P. Chidambaram’s home ministry questioned the need for Aadhaar using a similarly warped logic . . . The Bharatiya Janta Party would seem just the sort of party that

would embrace Aadhaar. Every other page of its manifesto makes some reference to changing governance . . . “Our government will be a government of the poor, marginalized and left behind” it says . . . Given all this, why is there no discernable difference in the positions of the BJP-led government toward Aadhaar and the dysfunctional approach of Chidambaram under the [Congress-led] United Progressive Alliance? The common thread is that, as Sir Humphrey Appleby often reminded us in the TV series *Yes Minister*, governance often has little to do with the people.

On July 5, a report in *The Economist* stated:²⁰

On July 10th Narendra Modi’s finance minister, Arun Jaitley, must dish up sensible plans in this first budget . . . Mr. Jaitley’s budget is expected to cut wasteful fuel and other subsidies. When they are not stolen, these mostly go to the better-off, especially the more prosperous farmers. Better and cheaper is to switch to welfare cash programmes . . . Cutting public money for all sorts of goods—fertilizer, cooking gas, paraffin, electricity for farmers—is in theory becoming easier. Some 640 million Indians are currently enrolled in a biometric identity scheme, called Aadhaar. When cutting subsidies, it should now be easier to identify those who need cash transfers to cushion the blow. Aadhaar, and linked bank accounts, could be extended to many more. Yet rumors suggest the administration may scrap Aadhaar (it was started by the Congress party, now in opposition).

In light of these reports and rumors, many pundits were surprised and even shocked to learn that India’s new prime minister, Narendra Modi, had decided not to scrap Aadhaar but instead to *speed up* its enrollment and deployment and boost the controversial direct benefits payments linked to Aadhaar. The *Indian Express* carried this front-page report on July 7:²¹

Putting to rest speculation about the fate of the UPA government’s flagship Aadhaar project and the Direct Benefits Transfer scheme, Prime Minister Narendra Modi on Saturday sought a 100-crore [1,000 million, or 1 billion people from India’s population of 1.2 billion] enrolment target under Aadhaar at the “earliest”, also asking officials to look into linking passports with its data.

The Prime Minister also gave a decisive push to all Aadhaar-based direct benefit transfer (DBT) schemes, including for LPG, which the previous government had scrapped, at a meeting with Home Minister Rajnath Singh, Finance Minister Arun Jaitley and Unique Identification Authority of India (UIDAI) Director General Vijay Madan on Saturday. While there has been some talk of merging Aadhaar with the National Population Register, officials say that appears ruled out for now.

The *Business Standard*, *India’s Wall Street Journal*, reported as follows:²²

It is learnt the prime minister has asked officials to revive the National Identification Authority of India Bill, trashed [in the fall of 2011] by the [parliamentary] standing committee on finance, headed by Yashwant Sinha . . . “Finance Minister Jaitley has been asked to handle the legal issues surrounding Aadhaar,” said a senior government functionary, on condition of anonymity . . . Jaitley has also been tasked with dealing with ongoing Supreme Court cases on the matter. The apex court had stayed the UPA government’s move to make Aadhaar mandatory for availing the benefits of government social schemes.

At a meeting on Saturday, Modi directed DBT for liquefied petroleum gas cylinders, pension and scholarships should be expedited in the 300 districts [out of India’s 600] in which more than 80 per cent of the district population had received Aadhaar numbers. At the meeting, the prime minister made it clear the Aadhaar programme was directly under his control, as he was also chairman of the Planning Commission, sources told Business Standard. Sources said the decision had been taken keeping in mind the need to trim subsidies in the coming Budget.

Earlier, Home Minister Rajnath Singh had given a unilateral nod for the National Citizenship Register (NCR), on the basis of the National Population Register (NPR). At the same time, contradicting the home minister, the UIDAI had sought the Cabinet’s approval to use the funds allocated for operations in Uttar Pradesh and Bihar.

The Modi-led NDA government has stamped the decision of the previous government and ruled out the merger of UIDAI with NPR. The decision, however, hasn’t gone down well with home ministry officials, who were hoping to take over the entire work of collecting biometrics. “Our five-point agenda was to do the collection of entire biometrics ourselves, complete the NCR and ensure UIDAI only de-duplicates and give citizens a national identity card,” said a senior official.

UIDAI officials said last week, they had already been directed by their parent ministry [Government of India’s Planning Commission, chaired by Prime Minister Modi] to ready the National Identification Authority of India Bill, to be reintroduced in Parliament. Currently, the Bill is in the *Rajya Sabha* [upper house of parliament].

Only July 10, 2014, the new Modi government presented its first budget to the Indian parliament, with Rs. 2,039 crore (US \$330 million at the prevailing exchange rate of Rs. 60 per U.S. dollar) for Aadhaar for the fiscal year 2014-2015. This budget amount for Aadhaar was higher than the prior year’s 1,550 crore, and the 1,900 crore for Aadhaar in fiscal 2010-2011 during the first year of launch.

The person who commented at length in June 2014 on what Nilekani could have done differently, said, “One has to think big and push for it . . . Risk takers win! The optimism in my last paragraph was not misplaced!”

Other Aadhaar supporters were elated, but wondered why the Modi govern-

ment had decided to keep Aadhaar, indeed to accelerate its deployment and use, contrary to what many had expected. Had an enlightened leader overcome resistance within his own party to push Aadhaar forward because it would help to cut fraud and waste and boost efficiency, or was Aadhaar now deployed so deeply into India's infrastructure and population that reversing it or modifying it would have been utter folly, and would have been seen as such by the public? Or both?

One insider observed:

According to some internal news, most folks (RSS team,²³ rural ministry, finance ministry, law ministry, etc.) pushed to keep Aadhaar in one form or another. Other than some election-time rhetoric, there was no huge resistance. All the news on dumping the project in favor of NPR originated from NPR team, playing usual politics in wanting to take over the project. So, I would say, a real smart prime minister is looking at long-term vision of e-governance, cleaning subsidy burden, increasing financial inclusion, enhancing national security, etc. clearly knowing that "identifying all individuals uniquely in the system" is indeed the starting point to go toward the vision. Thumbs up to PM!

Another commented as follows:

The Modi government understands that Aadhaar is a good medium for effective subsidy targeting and plugging leakages—particularly via de-duplication of bogus beneficiaries and via cash transfers. I am glad they are taking a national interest view rather than partisan politics. I think suitable legislation will now be pushed through and Aadhaar will be made mandatory over time.

One Aadhaar supporter said:

The case in the supreme court now looks like the only big issue left, and it will be very interesting to see if the NGOs who filed the case to stop Aadhaar will seek a compromise solution or continue to oppose Aadhaar even though two consecutive governments that share little else in common have now backed Aadhaar so strongly.

A well-placed insider offered this perspective in mid July 2014:

The behind the scenes work required to make the latest news possible is a story in itself, and one which cannot be told for a long time. The Modi government is working on passing legislation for Aadhaar. They also recognize the political gift they have been handed on a platter by the previous government, and they intend to use it well.

On July 24, 2014, the respected newspaper *The Economic Times* reported:

Four days before Prime Minister Narendra Modi made his first public statement surprisingly backing the Unique Identification Authority of India (UIDAI), former UIDAI chairman Nandan Nilekani met with the PM and Finance Minister Arun Jaitley and persuaded the new regime to

persist with Aadhaar numbers and the Direct Benefits Transfer (DBT) scheme.²⁴

One knowledgeable observer speculated that, although Nandan Nilekani had contested the south Bangalore parliamentary seat as a candidate of the Congress party (he lost to his BJP rival in the election), this did not prevent a meeting with Prime Minister Narendra Modi, especially if a common friend, such as the multi-billionaire Indian business magnate Mukesh Ambani, had arranged it.

What really happened behind the scenes may be revealed in time, but the people of India seemed to have won a major victory in moving toward a modern, open-access civilization in which every resident feels empowered by Aadhaar to pursue whatever direction in life he or she chooses.

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1. Authentication (verification to make the ID fraud-proof) was done online when the individual submitted his/her Aadhaar number and biometrics, such as one or more fingerprints and/or photo and/or iris scan (per the level of assurance sought by the service provider depending on the importance of the transaction) via the Internet for comparison with the biometrics that the individual had submitted when enrolling to receive the Aadhaar number stored on a massive centralized database. The online authentication process, described in detail in the original Aadhaar case (Sathe, 2011), was completed via authentication terminals within a few seconds.
 2. Under “Dashboard Summary,” see Aadhaar enrollment as of March 2014 in the chart “Aadhaar Trend” Available at <https://portal.uidai.gov.in/uidwebportal/dashboard.do>.
 3. “Identifying a Billion Indians,” *The Economist*, January 29, 2011, 61-62; Ian Parker, “The ID Man: Can a Software Mogul’s Epic Project Help India’s Poor?” *The New Yorker*, October 3, 2011, 26-34.
 4. View the closing remarks by Jim Yong Kim in the YouTube video of Nandan Nilekani’s presentation at the World Bank, April 24, 2013: <http://live.worldbank.org/science-delivering-online-ids-billion-people-aadhaar-experience>
 5. By end of December 2013, the entire project cost was at 3,800 crores (US \$622 million) and about 550 million Aadhaar numbers had been issued, roughly at Rs. 70 (US \$1.1) per number. See <http://uidai.gov.in/finance-budgets.html>.
 6. P. Chidambaram later became finance minister in the central government, a position he had previously held, and in the interim budget speech to the Indian parliament in early 2014 he went out of his way to support Aadhaar, saying that the government was fully committed to it. See <http://www.thehindu.com/news/national/government-fully-committed-to-aadhaar/article5699113.ece>.
 7. “The Magic Number: India’s Identity Scheme,” *The Economist*, January 14, 2012, 10. For the cover story following this editorial, see “Reform by the Numbers: India’s UID Scheme,” 39-40.
 8. Vijay Sathe, “The World’s Most Ambitious ID Project: India’s Project Aadhaar,” *Innovations* 6, no. 2 (2011): 39-66.
 9. Rohin Dharmakumar, Seema Singh, and N. S. Ramnath, “How Nilekani Took Aadhaar Past the Tipping Point,” *Forbes India*, October 8, 2013. Available at <http://forbesindia.com/article/big-bet/how-nandan-nilekani-took-aadhaar-past-the-tipping-point/36259/1>.
 10. Another knowledgeable observer noted that “UIDAI [Aadhaar] has received permission to do enrolments in UP and Bihar, and is expected to add another 30 million via state registrars. NPR continues to cover the other states for which it is responsible.”
 11. KYC (Know Your Customer) norms required those opening a bank account to produce proof of name and address, which prevented those without a verifiable ID such as a driver’s license or a passport from opening a bank account. In 2013, the Reserve Bank of India issued new regulations whereby anyone with an Aadhaar ID could authorize the bank to obtain an electronic

- copy of the letter issued by UIDAI that contained his or her name and address almost instantaneously via a secure Internet query to the central Aadhaar ID database. This new authorization procedure was called e-KYC (for “electronic KYC”).
12. A recent Stanford University study had provided the theoretical basis for predicting that most people have a “best finger.” See:
<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0094087>.
 13. This was generally viewed as a political move by the opposition BJP party in Parliament to block the ruling Congress party from rolling Aadhaar out under legislative authority. There was no debate in Parliament of the type recommended by Aaron K. Martin, *Envisioning Technology through Discourse: A Case Study of Biometrics in the National Identity Scheme in the United Kingdom*, unpublished doctoral thesis, London School of Economics, September 2011. Referencing this work, one knowledgeable observer of the Aadhaar project noted, “While all of this is not relevant and nor do I agree with all of it, Martin correctly concludes that Tech projects like Aadhaar are complex and there was no good policy debate on this in the Parliament.”
 14. Initial reports like the following indicated 537 million people had voted; the official figure released later on was 554 million people: “The Indian election is the world’s largest exercise in democracy. 537 million votes have been cast.” See “Indian Election Result: 2014 is Modi’s Year as BJP Secures Victory,” Oliver Laughland and Matthew Weaver, *The Guardian*, May 16, 2014 Available at <http://www.theguardian.com/world/2014/may/16/india-election-2014-results-live>.
 15. “Promising the Good Times”. *The Economist*, May 24, 2014, 21. Available at <http://www.economist.com/news/briefing/21602710-overwhelming-election-victory-promises-reshape-indian-politics-promising-good-times>.
 16. iGovernment is a web platform and information portal for knowledge sharing among those interested in the use of technology for good governance.
 17. “Future of Nandan Nilekani’s UIDAI Hangs Precariously as Home Ministry Prepares for a Kill,” Manan Kumar, May 22, 2014: Available at <http://www.dnaindia.com/india/report-future-of-nandan-nilekani-s-uidai-hangs-precariouly-as-home-ministry-prepares-for-a-kill-1990360>.
 18. See p. 72 of Robert Klitgaard, “Designing and Implementing a Technology-Driven Public-Private Partnership,” *Innovations* 6, no 2 (2011): 67-72.
 19. Rahul Jacob, “The Aadhaar Tragedy,” *India Abroad*, July 4, 2014, A17.
 20. “Waiting for the Modi Mojo”. *The Economist*, July 5, 2014, p. 33. Available at <http://www.economist.com/news/asia/21606337-its-first-budget-government-must-fix-public-finances-and-offer-reforms-waiting-modi?zid=309&ah=80dcf288b8561b012f603b9fd9577f0e>.
 21. “Aadhaar, DBT Get a Lifeline, Modi to Retain, Push UPA Schemes.” *Indian Express*, July 5, 2014. Available at <http://indianexpress.com/article/india/india-others/aadhaar-dbt-get-a-lifeline-modi-to-retain-push-upa-schemes/>.
 22. “Modi backs UIDAI, seeks accelerated DBT rollout.” *Business Standard*, July 5, 2014. Available at http://www.business-standard.com/article/economy-policy/modi-backs-uidai-seeks-accelerated-dbt-rollout-114070500756_1.html.
 23. RSS is the acronym for Rashtriya Swayamsewak Sangh, India’s Hindu nationalist movement that played a key role in bringing the BJP government and its leader, Narendra Modi, once a devout RSS member, to power in the recent landslide election victory.
 24. “Nandan Nilekani impresses Narendra Modi & Arun Jaitley, gets Aadhaar a Lifeline”, Vikas Dhoot and M Rajshekhhar, Available at http://articles.economicstimes.indiatimes.com/2014-07-24/news/51982210_1_uidai-project-uidai-official-aadhaar.