

# ACADEMIC REPORT: THE AADHAAR PROJECT

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## The Aadhaar project - Abstract

**The Aadhaar Project is the first of a kind implementation of a biometric system in India, which enables the people of India to obtain state services such as wage payments for works, social schemes for food, etc. This project was meant for the government of India, to reduce the cost of administration. To identify and remove any duplicated entries of identification. To allow the unique Aadhaar numbers to be link to existing databases, as in banks accounts and perhaps future works with other institutions such as telephones companies to gain more information on a person. To provide the benefits of services and schemes at the people of India's doorstep. However, problems with implementation, execution and ethical questions have caused lots of problems with the project, such as inaccuracies on identification, running of the project without legal frameworks and the refusal to make right of information requests public such as authentication failure rates. Within this report, I will be addressing the topics stated and a discussion on the ethical considerations of this project or lack of.**

**Key terms – Aadhaar Project, Biometric System, administration, Ethical Considerations.**

## INTRODUCTION

The Aadhaar Project is considered the largest biometric ID system with roughly 1.20 billion people with the total population of India projected in 2018 as 1.33 billion people (UIDAI, 2018). The Unique Identification Authority of India or UIDAI was launched in 2009 under the 13<sup>th</sup> prime minister of India Manmohan Singh. From this organisation came the Aadhaar project, it was presented as a scheme for the people of India that was marginalised or poor. The

UIDAI would provide the people of India with a 12-digit identity number, that was linked to the person fingerprint and iris scans. Each user received a card with that number on it. The UIDAI explained that the card was not a proof of citizenship, but it needs to be provided for citizens to receive the benefits of the project. Initially the Aadhaar project was a voluntary system being implemented by the Indian government, however at a district level, the citizens were told to enrol or go without essential services (Mertia, 2020). The poorest citizens were cut off from the schemes or people declared dead if they failed to enroll in the system and it seem that the government was pushing for this to become mandatory.

In the push to make this mandatory and have enrollment very high, lots of officials began to fabricate results by removing people, this was due to internal pressure. The organization did not have any formal processes for the non-payments and benefits of the citizens through to the Aadhaar project and as such activist submitted an affidavit to the Supreme court on the non-payment of wages due to not enrolling in Aadhaar. Following the incident, the joint secretary who administers the schemes in question issued instruction that no worker would be deprived of entitlement to work because of Aadhaar. This incident then opens to the fact that the Aadhaar project was run without legal frameworks for six years, which seem unethical and will be developed further. The Aadhaar claimed to make this system transparent, for example the grievance system or failure rate, etc. This was not true as the UIDAI refused to make information as stated above public as they said the data is not available or technical issues from retrieving the data, which leads the possibility of misusing the data.

The Aadhaar project had lots of problems in its infancy, however the government continued to push this project. Currently, as of 2019 India has issued 1.23 billion identity cards. Aadhaar covers 90% of the population of the adult population, 27% of the children population aged zero to five and 76% of the children between 5 and 18 years old (UIDAI, 2018). Clearly the implementation was successful,

however what are the government doing with this data, simply helping the citizens with their legal entitlements or is this a large surveillance system.

The report will be broken down as follows, the next section is background research will show additional information surrounding the Aadhaar project and highlight important issues. The next section the Method, in which I discuss what the project is, and the problems associated with it. A discussion of the Ethical consideration surrounding the project will take place and finally my concluding remarks on the body of work.

### BACKGROUND RESEARCH

In the beginning, to see if the project could be beneficial to both the government and the citizens, the prime minister selected one district to introduce an Aadhaar-linked cash transfer to pay workers through an employment scheme as a pilot project. In 2011, officials said over the next year around 174,000 workers will be paid through this project. However, it was discovered that only 5,000 workers were paid through the Aadhaar project (Yadav, 2012). The scheme did not go according to plan due to several reasons such as, administration under strain, lack of interest and an armed conflict in the district that was chosen. In 2013 & 2014 officials described internal pressures from their superiors to show 100% Aadhaar enrolment or face administrative action and as such local officials began to make sure that was the case by removing citizens from welfare schemes which they were entitled to.

Due to coercion and procedure, the major claim on welfare delivery and efficiency for both the governance and citizen had not come true. As the state evade questions about accountability and the lack of legal rights or framework on Aadhaar and even when the Aadhaar Act came into law. Lots of citizens did not trust the system and could not even redress any grievance from the project.

The problem of privacy and security has been in the past suggested to be lacking. For example, a reporter was able to purchase access to the Aadhaar database and could get information such as names, phone numbers address, photo and emails. With more money the reporter was able to get software that could print a Aadhaar card after entering any Aadhaar number (Khaira, 2018). The government has refuted the data breach and to prove it a high-ranking official shared his Aadhaar number on twitter taunting hacker only to find out that his information has been hacked (Ayyar, 2018). The supreme court has stopped the state allowing private companies to use Aadhaar and as such has prevent more privacy infringements on over 1 billion people.

There has been a battle between groups and the government, for example, compulsory Aadhaar in schools was

challenged in 2012 and 2015 and in both cases the plaintiff won, and the ruling stated that access to welfare services can not be tied to Aadhaar registration alone. However, the government continued to introduce compulsory Aadhaar registration for services such as senior rail passes to applying for government jobs (Ghosh, 2018). However, the supreme court has repeatedly reiterated its standing, but the government continue to implement Aadhaar cards at the city level. The mixed signals between the two branches of governance and a population with widespread illiteracy, this could lead to mass confusion about Aadhaar Project (Meghnad, 2017).

Further on the point of the government implementing Aadhaar with more social schemes, they have allowed citizens to link up their bank accounts to their Aadhaar number and that is suggesting to me that the government want to include more private companies into this one database.

Graph 8. Progress of Unique Aadhaars Linked to Bank Accounts

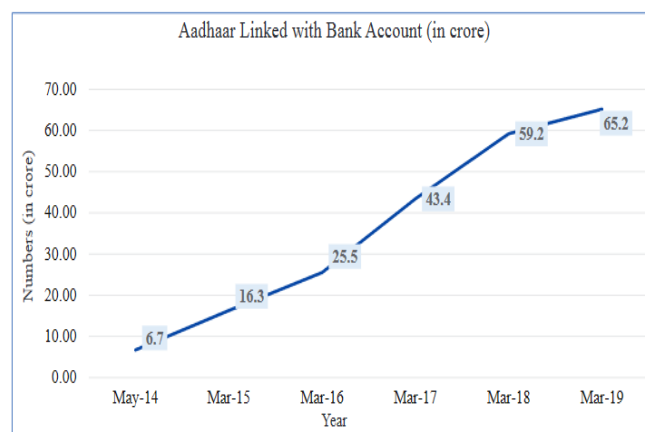


FIGURE 1 (UIDAI, 2018).

The figure above has the amount of Aadhaar numbers that have been linked with a bank account. On the x axis is the years from March 2014 to March 2019 and the y axis has in crore (10 million) the number of accounts that are linked, what I can see is a positive linear relationship as the linked accounts continue to grow, this shows that the government is encouraging and wants people to link their applications or service to their Aadhaar number within the legal realms of the Aadhaar Act.

### METHODS

The technology of the Aadhaar project relied on biometrics. The technology needs infrastructure and the collection of quality information of a person. Some of the infrastructure required for this project were computers, the internet, servers and biometric devices. These were highlighted issues as if one went down, the entire system struggled to provide essential service to the person. For example, this project would be providing to geographically challenging rural areas and in some cases with neither electricity nor internet. This was a challenge as poor internet connectivity, logistical difficulties or lack of banking agents caused problems initially for the project to be effective in its implementation.

A huge problem of the implementation of this technology was the reliability of the biometric scanners, for example an elderly farm worker called ‘Dashay Bediya’ was amongst people repeatedly rejected by the machine that scans fingerprints due to his weathered and cut hands. The agent suggested Bediya to ‘put Vaseline on his hands before going to sleep’ and try again after a couple of days, the man left without collecting his wage that day (Mertia, 2020). The Aadhaar project was also used for distributing food ration to areas of poverty, news reports found that making this system mandatory to obtain food rations has resulted with only 45% of 98 lakh ration (9.8 million) beneficiaries receiving their supplies after authentication (Yadav, 2016). This was due in part to the machines not recognising fingerprints of the laborers after multiple attempts. The linking of this technology in providing delivery of food grains and wages, conditional to the database finding a match for the Aadhaar numbers of beneficiaries has proved inimical to the promise of food and wage security in India (Mertia, 2020). Also, it was reported that leprosy sufferers with no fingers or eyes having their benefits cancelled due to the biometric scans being mandatory for the Aadhaar project (Suraksha, 2017). This is just one illness out of many that could cause issues with the mandatory scans for access to welfare schemes and India is a vast population with wide range of health and wealth, this implementation has proved troublesome.

Some regions allow for an alternative authentication, with a password being sent to a mobile number linked to a Aadhaar number if the biometric system fails to authenticate. However, this is not a fix all option to the failures of the system, as some people do not have access to phones or do not have their Aadhaar number linked to their phone. That is not the only problem with this alternative authentication option, such as dealers use this alternative option to make fraudulent entries on a single number and then sell the food to the market. As report earlier this is not the only infringement of security and privacy as stated in section background research.

To get an Aadhaar number, the people had to submit to biometrics and demographic information to private agencies hired by the government. From there the number gets linked

to several social, welfare schemes for the person. The security of this system was in question when the reports came out of people selling the ability to obtain Aadhaar numbers for a price and when the high-ranking official was hacked through his Aadhaar number. (Ayyar, Khaira, 2018).

Graph 1. Year-wise Aadhaar Generation (September 2010 to March 2019)

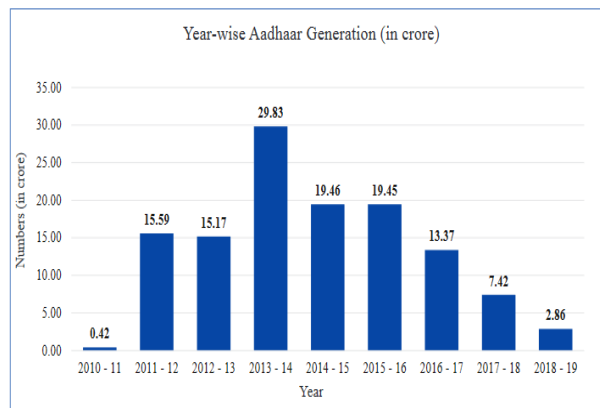


FIGURE 2 (UIDAI, 2018)

From the above figure, I can see when this project was first implemented (2010-11), there were no real reason to enrol because it was seemed to be another barrier to jump over in order to get government backed welfare and because it was voluntary. But a push from the government to enrol its citizens and to benefit from schemes had seen the next few years generate lots of Aadhaar number for people. I can see that the project was being correctly implement from the governments point of view, even with its problems discussed. Closer to the final years on the graph, I can see reduced number generation, I believe this is due to most of the population being already enrolled in the project and the remaining generation is for the younger generation such as children.

The UIDAI wanted to allow private companies to use this database also, but the supreme court would not allow that to happen as it would be an infringement onto data privacy, even though India does not have an all-encompassing data protection law. Through lots of legal battles between the two branches of government, in 2018 the supreme court gave a ruling in favour of the Aadhaar project as constitutional and vindicates the Aadhaar project does respect human dignity and doe does not violate privacy. Some other feature of the ruling state that it is not mandatory of Aadhaar for linking SIM and Bank accounts (see FIGURE 1), also that private companies cannot insist on Aadhaar for their private benefits (UIDAI, 2018).

## DISCUSSION OF ETHICAL CONSIDERATIONS

In this section I will be discussing the ethical situations involved in the Aadhaar Project. I believe that there are many ethical problems associated with this project and I believe a lot of the questions asked still have not been answered. However, a discussion into these problems needs to be had in order to overcome the problems. In no order, I will be discussing these main ethical consideration topics, morality, privacy and security.

Firstly, I will talk about how moral this project is. The government's vision for this project was to allow people that has been marginalised and excluded in society to have legal entitlements from their government in different forms such as social work and welfare schemes. From my point of view of looking in from the outside is that the morality of this project was never considered, why I believe this because in my research for this report, there seems to be lots of hardships around obtaining and getting the benefits of this project. For example, the story with Dashay Bediya from the methods section shows just one of many reports of this happening. Labours routinely struggling with getting paid for work done simply by a machine's inability to register the weathered hands of the person, or how when people with disease that alter their appearance such as leprosy, that they cannot avail of their benefits as the fingerprint scan and iris scan is mandatory. What I am suggesting is that the government simply wanted this system to be used in the capacity it was intended for but by doing so has made an already difficult process of applying, getting and receiving these benefits for the poor citizen even harder when biometric scans fail and, in my opinion, it is immoral to the poor citizens as it's them that lack the much-needed benefit from a broken project.

The second ethical topic I believe to be infringed upon is privacy. What I see when looking at the Aadhaar project is a mass surveillance program, I look at the project and how poorly it was worded and implemented at the start and it seems to me that the government got a hold of some new technologies that could scale with its huge population and are actively trying to create a country under surveillance. I look at the running battles between the supreme court and the government and how the government keeps trying to link more schemes and banks to obtain a more robust profile of its citizens but then adding private companies into the list of possible entries of this database, it seems to me that the government wants the ability to monitor its citizen through any aspect of that citizen's life. However, saying that the recent ruling by the supreme court has lent its support and states this project is constitutional and is not intended for surveillance, but I continue to find it hard to believe.

The last ethical topic is security, this in my opinion is the more important topic. This a country with 1.33 billion people and around 1.2 billion of that population has their biometric scans uploaded to a database. The database is layered with different security levels for officials and all the databases are spread over India to prevent one large data leak from the servers, but that still has not stopped leaks. Reports of dealers taking advantage of the alternative authentication to sell more food rations on the market for a bigger price. However, the largest scandal relating to security must be that a reporter was able to get any information on any Aadhaar number, and that the hackers can create new Aadhaar cards for a small price. This is hugely unethical from both the hacker of course but also the government to allow data breaches like this. The reason I find this dangerous is because the hackers are of course selling sensitive information of a person but also the person cannot change their Aadhaar number because ultimately their fingerprints and iris scan are only unique to that one person and as such, they will never have security within the project if exposed. It was also reported a high-ranking official also tempted the hackers to hack his Aadhaar number, which they did and leaked his information on the internet and just to scare people further send money to his linked bank account, clearly the security of this project comes under question because of handling situation like this and with such a large amount of population in this project there could be disastrous consequences to a large data leak.

## CONCLUSIONS

To conclude this report, The Aadhaar project set its vision to help the poor and marginalised citizen of India, with 1.2 billion people enrolled in the project, it can be seen a success to the government. However, it is not without its problems its early implementation was not a great success, due to technological problems such as not scanning people correctly and so people going without food and wages. The government's push to just get everyone enrolled no matter the situation has provided hackers opportunities to obtain information on these databases, also, has raised lots of ethical problems such as is the database safe, is the government selling my information or monitoring my every move, etc. I do believe in some aspects of this project to be immoral and an infringement in privacy, but with a population that large this is one approach that could benefit the people more than hinder them but is one step away from a mass surveillance state.

The project as it stands seem to be helping the people and as such I believe if this is all it is used for then the project is helping more than hurting. However, it is my opinion that the government is still trying to monitor and create value in this project so companies will pay to use this information, however with continuing protest in the supreme court that has not happened yet.

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