

# What ails smart policing in India?

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## Abstract

This paper aims to explore the materiality of algorithmic governance by looking at the political, social and bureaucratic negotiations that building an information system entails. Through a study of the Crime and Criminal Tracking System in India (CCTNS), it will look at the failure of smart policing in India as a complex mix of politics, bureaucratic inefficiency and social norms.

The paper is based on Bowker and Star's (1999) study of infrastructures where they have argued that physical, political and bureaucratic infrastructures are invisible but intrinsic to the making of any classification system. Their concept of "Infrastructure inversion" which means, "recognising the depths of interdependence of technical networks and standards (in the making of infrastructures), on the one hand, and the real work of politics and knowledge production on the other" (ibid: 34) is a methodological tool to analyse infrastructures and their formation from a social, political and economic lens.

This paper will take CCTNS as a large-scale information infrastructure and study its underlying political, social and bureaucratic infrastructures to understand how they contribute to the failure of smart policing in India. The assumption being that it is not just physical construction of systems but negotiating with the social, bureaucratic and the political that impact the setting up of a digital system. This paper is part of an on-going project to study digital crime record keeping and data analysis in India and currently deals with only New Delhi, capital city of India. However, the condition of CCTNS implementation in New Delhi is indicative of its implementation in the rest of the country.

Keywords: data, smart policing, CCTNS, crime, algorithmic governance

as criminal information is concerned; data recording and handling is done on paper with record rooms still being an essential part of a police station's architecture. Data analysis is rudimentary at best, with very few police stations investing in sophisticated analytics. In this environment, Government of India launched CCTNS in 2009 after the terror attacks in Mumbai, Maharashtra on November 26, 2008 revealed a large gap in information sharing within the police. Budgeted at Indian Rupees 2000 crore (\$309 million approx.), it is part of the planned expenditure in the 11<sup>th</sup> five-year plan of India and is also a 'mission mode program' of its National e-governance program (started by government of India in the year 2006 with a budget of \$7.2 billion). CCTNS, to be implemented at 14,359 police stations and 6106 specialised offices across India, aimed to digitise crime data, facilitate easy sharing of information among police stations, monitor and help in preventing crime and provide citizen services, such as online filing of First Information Report (FIR). The deadline for completion was the year 2012. However, even after its second extended deadline of March 2017 most of its scheduled tasks were incomplete and a new deadline for completion has been set for March 2018. Though the project has been massively delayed, no concrete reasons have been given for it.

On record, 87 per cent of the police stations have been connected to CCTNS, however, the police officers on duty still continue with their old ways for registering complaints and FIRs on paper. A mere 74 per cent are entering their FIR data in the Common Application Software (CAS) of CCTNS<sup>1</sup>, however, as we will see later, this data entry is not being done by police officers. Filing of online First Information Report (FIR) has been enabled in 30 out of 36 states and Union Territories, but with most people either without digital access

## 1. Introduction

Smart policing has not been able to take off in India in a way it was envisaged by its makers. Police stations in India still work in silos as far

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<sup>1</sup> Data from Pragati Dashboard  
[http://ncrb.gov.in/BureauDivisions/cctnsnew/CCTNS\\_Dashboard/PRGATI%20dashboard%202017.06%20ver%206.0%20for%20MHA.pdf](http://ncrb.gov.in/BureauDivisions/cctnsnew/CCTNS_Dashboard/PRGATI%20dashboard%202017.06%20ver%206.0%20for%20MHA.pdf) accessed on August 1, 2017 12:26 PM

or education, this is not the most used function of the system either. Also, in states like Delhi and Karnataka, online FIRs are not a feature of CCTNS but of a separate online policing initiative taken independently by states before the advent of CCTNS. In Delhi, it has been in place since 2011. CCTNS only records data of FIRs and the 'daily diary' or the 'general diary' (an account of the daily functioning of the police station). However, most crime data in police station exists in terms of complaints (only a portion of complaints become FIRs), which are not recorded in the common application software (CAS) of CCTNS. It is debatable if FIR data from CCTNS is part of the new smart policing project of the Delhi government – Crime Mapping and Predictive Analysis (CMAPS) – where hotspot mapping is being currently done.

## 2. Research Overview

The paper employs the case study method to understand the bureaucratic, political and social infrastructures of CCTNS implementation in New Delhi, which will be indicative of the implementation of these systems in the rest of the country.

New Delhi has been chosen because it is the capital city of India and apart from CCTNS, it is also running a smart policing project CMAPS, which is designed to use data from CCTNS and 'Dial 100', the emergency police service of Delhi, making it easy to study the impact of CCTNS on digital policing. Police Officers and 'CCTNS operators' were interviewed in an upper middle class neighbourhood of Delhi to understand CCTNS implementation. This is an on-going study, and due to paucity of time and lack of accessibility, only one police station could be studied. The paper looks at policy documents of CCTNS; Right to Information (RTI) responses from the National Crime Records Bureau (NCRB); official status reports of CCTNS from MHA; Official Press Releases of NCRB and MHA; Questions posed in Parliament about CCTNS, and newspaper and magazine reports. The author also interviewed officials in the National Records Crime Bureau (NCRB), which is the nodal agency for CCTNS implementation and is under the Ministry of Home Affairs (MHA), government of India, along with officials at the Delhi Police Headquarters working on CMAPS.

## 3. Findings

### 3.1 CCTNS in Delhi

CCTNS was introduced in Delhi only in 2015 when its proposed deadline was 2012. Though many government press releases claim a 100 per cent 'roll out' of CCTNS in Delhi, this is far from true. Its targets for a June 2013 rollout were as follows: Number of locations: 457; Number for 'role based' training (to police officers): 38,253; Record digitisation: 40,5600 and for record migration: 49,5873. Till 30<sup>th</sup> June 2015, 453 sites were surveyed for CCTNS implementation and 21,1193 records were digitised (but not verified by the home department). No data migration was done. As of 2017, FIRs are still recorded on paper and are entered on the CCTNS portal by operators (explained later). Paper based records need to be maintained as a backup because of frequent network and electricity failures. The connectivity to the state data centres is reported to be complete.

On the Pragati Dashboard, the statistics show inconsistency. On the first page, it is claimed that only 80 per cent of the police stations are entering information regarding integrated investigative form (IIF), the forms used for recording information about a crime, numbers 1-5 on common application software (CAS) of CCTNS<sup>2</sup>. For IIF 6-7, only 30 per cent of police stations are entering information in CAS. However, in later pages, it turns out that all police stations in Delhi are entering 100 per cent of information, from IIF 1-7, in CAS. For IIF 8-11, information was primarily being recorded on paper. Delhi gives itself an 8/9 for online services; however these services have little to do with CCTNS and are part of the Delhi Police Online Initiative launched way back in 2011 before the advent of CCTNS.

### 3.2 CCTNS in a limbo between tradition and modernity

In Vasant Kunj Police Station, a separate room has been dedicated to CCTNS. It consists of two computers and a printer and is the only room in the police station, except that of the Station House Officer's (SHO), with an air conditioner. Two 'operators' man the portal.

<sup>2</sup>[http://ncrb.gov.in/BureauDivisions/cctnsnew/CCTNS\\_Dashboard/PRGATI%20dashboard%202017.06%20ver%206.0%20for%20MHA.pdf](http://ncrb.gov.in/BureauDivisions/cctnsnew/CCTNS_Dashboard/PRGATI%20dashboard%202017.06%20ver%206.0%20for%20MHA.pdf) accessed August 23, 2017.

These operators are executive level police officers or '*havalendars*' (constables) who have been trained for eight days to work on the CCTNS portal. They are well versed in using the computer and have a high typing speed – qualities that help them get chosen for an '*aaram wala job*' (a job of comfort) in the CCTNS room<sup>3</sup>. Their job is to enter FIRs and daily-dairy data of the police stations, recorded by officers in paper registers, in the CCTNS portal.

There are two kinds of police officers at the station – the duty officer (DO) and the investigating officer (IO). The DO looks after the daily functioning of the station while the IO goes on the field to investigate complaints that the police station receives. Complainants can register their complains by coming to the station physically or through the police helpline number '100'. They can remotely file FIRs through the online portal of Delhi Police (part of the Delhi Police Online initiative though connected to CCTNS). FIRs on this portal are instantly filed because they do not require following the official procedure: filing of complain, IO investigation and subsequent FIR on the basis of the IO report. Even if complainants' could not file online FIRs from home, due to reasons such as lack of digital knowledge and/or inaccessibility of a computer/phone, they could come to the police station to get an FIR filed by a police officer on their behalf (in reality, they were filed by the CCTNS operators and not by the police officers). The officers too preferred this method because it led to speedy investigation and saved them from lengthy documentation process.

This resulted in a decrease in the number of FIRs entered in the CCTNS portal. Therefore, in order to increase the number of FIRs entered through CCTNS and portray an overall high efficiency of the system, filing FIRs through the Delhi Police online portal has been discontinued. Another reason for discontinuation was that police officers were

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<sup>3</sup> The constables are the lowest rung officers in the police force. Their duty hours are long (18 hours a day) and they have to spend most of their time outside the police station or in the 'field'. They are required to man the city come thunder, rain or shine with little or no protection from these weather elements and very little incentives in terms of money. Harassment from higher up officials is also common. It is not surprising that those who know how to work on a computer, have a good enough typing speed opt for a data entry operator's job instead.

unable to check the online portal for FIRs for investigation. As a result the FIRs kept languishing in the portal without any redressal. The CCTNS Standard Operating Procedures (SOP) exclusively instruct the DOs to enter the FIRs in FIR and details of daily operations in the 'general diary' section of the CAS. Due to lack of technical training and education, DOs record the activities of the police station on a paper based diary, which is then copied in CCTNS portal by the operators; even the mobile numbers used for OTP authentication for logging in the Common Application Software (CAS) are of the operators, and not the officers.

Police officers are not educated enough and lack familiarity with technology. Having studied from rural government schools where education (both content and infrastructure wise) is rudimentary, they are more comfortable with paper than a computer. The CCTNS project ignores this social condition as a part of its implementation.

### 3.3 Policing and Politics

Corrupt police practices include tampering with the FIR and complaint register, which is sometimes done in collusion with politicians other state agents. FIR and complaints are registered on 'back dates' or on dates different from when the complainant actually complained or when the incident actually happened. Police officers scribble complaints in the left over spaces of the FIR notebook, fudging its reality. It is (currently) impossible to tamper with an FIR once it has been entered in the CCTNS portal and has been declared a felony, garnering resistance from politicians and police officers.

### 3.4 The Bureaucratic Life of CCTNS

A number of authors such as Mathur (2016), Hull (2012) have talked about the materiality of bureaucracy in South Asia, India and Pakistan respectively; how existence and management on paper is an integral part of government schemes. As we saw in the last section, a less time consuming process for filing FIRs was discontinued in favour of filing FIRs through CCTNS in order to project a picture of an efficient system. In another case, a press release<sup>4</sup> by the Ministry of Home Affairs dated 08/12/15, announced the

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<sup>4</sup><http://pib.nic.in/newsite/mbErel.aspx?relid=132769> accessed on 12/04/17 at 11:14 PM

extension of the second deadline of the project (from 2015 to 2017). The reasons of the delay were given as below:

“CCTNS is a complex project with the project activities being undertaken by number of stakeholders. All States/UTs went through a complex tendering process to engage System Integrators - involving all the clearances and approvals from the State/UT level Governance structure of CCTNS project, which took time. *Also frequent changes of officers responsible for CCTNS at State/UT level led to delays.* Such large programme was being carried out for the first time, but now enough experience has been gained and the project is in advanced stage of implementation” (emphasis mine). This was the standard reply given by all state/union ministers in parliament regarding all questions on the delay in CCTNS. Another official press release by MHA<sup>5</sup> dated 24/02/15 states the following:

- “States/UTs took time in preparation and finalisation of Request for Proposal (RFPs) for selection of State System Integrator (SI)<sup>6</sup>.”
- SI selection in some of the States/UTs got delayed.
- In some of the States/UTs there was delay in handing over the sites to SI.
- In some of the States/UTs there were issues in execution of project by SI” (emphasis mine).

The delay in execution of CCTNS was carefully managed on paper shifting the blame to states/UTs.

In another attempt to show action ‘on paper’, governance structure of CCTNS was changed in 2015 when it could not meet its second deadline. Initially, it was under the National Crime Records Bureau (NCRB), which falls under the Centre State Division (CSD) of the Ministry of Home Affairs (MHA). After April 22, 2015, it was put under the direct control of CSD superseding the authority of NCRB, as the central government felt that the project was slow due to improper monitoring by NCRB. For a period of three to four months, all financial approvals and policy decisions were communicated directly from CSD to all states and union territories (UTs) through specific emails IDs assigned for the purpose. As stated in an MHA advisory, this was done to ‘fast

track and streamline’<sup>7</sup> the implementation of CCTNS. However, the project was back with the NCRB within a few months as CSD felt that it was too big and complicated for them to manage. Currently, the project is being run by NCRB and monitored by the Police Modernisation division (a new division created specifically for improving policing in India) and NITI (National Institute of Transforming India) Aayog, a policy think tank. Even with such high profile divisions monitoring the project, it is failing because of lack of trained people to do the work. Tedious government recruitment processes delay hiring of competent resources and even when they are hired, lack of training facilities hampers their optimal functioning.

### 3.5 III Planning in Devising Data Collection Applications

Crime monitoring CCTNS was preceded by Crime and Criminal Information System (CCIS), which was implemented in the year 1990 “as an initiative to monitor and analyse crime with the help of data from national, state and district crime bureaus”<sup>8</sup>. It was used to make crime reports pertaining State Crime Records Bureaus’ data from 1994. By 31/12/16 the CCIS database had approximately 4,33,78,448 records<sup>9</sup> but it was soon discontinued (except in UT of Andaman and Nicobar). Now all data is being captured through the Common Application Software (CAS) of CCTNS<sup>10</sup>.

Another new *scheme* to manage daily operations of the police stations was started in 2004 with the name of Common Integrated Police Application (CIPA) as part of the Modernisation of State Police Forces (MPF) Project. CIPA aimed to automate the functioning of the police stations; 2760 police stations (from a total of approx. 14000) were automated when a new scheme CCTNS was brought in.

<sup>7</sup>[http://mha.nic.in/sites/upload\\_files/mha/files/AdvisoryCCTNS30Nov2015.pdf](http://mha.nic.in/sites/upload_files/mha/files/AdvisoryCCTNS30Nov2015.pdf) accessed July 17, 2017 at 12:13 PM

<sup>8</sup>[http://www.ncrb.gov.in/BureauDivisions/CCTNS/All%20State%20RFP/Uttar%20Pradesh/UP\\_CCTNS\\_SI\\_RFP\\_Volume\\_I.pdf](http://www.ncrb.gov.in/BureauDivisions/CCTNS/All%20State%20RFP/Uttar%20Pradesh/UP_CCTNS_SI_RFP_Volume_I.pdf) accessed on 11/04/17 at 11:09 PM

<sup>9</sup> Source: <http://ncrb.nic.in/MajorSystems/ccis.htm> accessed on 11/04/17 at 9:17 PM

<sup>10</sup> *ibid.*

<sup>5</sup><http://pib.nic.in/newsite/PrintRelease.aspx?relid=115767> accessed on 12/04/17 at 11:12 PM

<sup>6</sup> State System Integrator are the private agencies entrusted to implement various technical components of the project

### 3.6 Funding

Total funds released for CCTNS implementation to Delhi were \$1.096 million till August 6, 2014 according to a reply to parliamentary question on August 12, 2014<sup>11</sup> Fund utilisation was shown as \$1.092 million. However, according to reply to another parliamentary question asked on May 5, 2015<sup>12</sup> funds released till March 2015 was shown as \$3.24 million or an increase of 197 per cent in a matter of seven months. Moreover, the total fund utilisation remained steady; from \$1.092 million it increased to a mere \$1.21 million or 10.8 per cent from August 2014 to March 2015. The total funds spent on CCTNS<sup>13</sup> in Delhi amounts to only 30 per cent of the outlay of \$4.8 million till June 15, 2017, three months after its third extended deadline got over.

### 3.7 CCTNS and predictive policing project in Delhi

Currently, the predictive policing project in Delhi, Crime Mapping and Prediction System (CMAPS) works on hotspot mapping of 13 kinds of crime in Delhi. CCTNS data is however not used in the project though there is a provision to do so. First, because the connectivity of CCTNS portal to CMAPS is not complete. Second, the data only consists of FIRs and not complaints, which presents a skewed picture of crime in the city. Third, the data doesn't come with latitude, longitude coordinates without which it cannot be mapped on the GIS system of CMAPS.

### Conclusion

This paper argues about the materiality of algorithmic governance and how it is

<sup>11</sup> Parliamentary unstarred question no 4769 asked on August 12, 2014

<http://164.100.47.194/Loksabha/Questions/QResult15.aspx?qref=4411&lsno=16> accessed on July 13, 2017 at 13:34

<sup>12</sup> Parliamentary unstarred question no 6317 asked on May 5, 2015

[http://164.100.47.132/Annexure\\_New/lsq16/4/au6317.htm](http://164.100.47.132/Annexure_New/lsq16/4/au6317.htm) accessed on July, 13, 2017 at 12:33 PM

<sup>13</sup>[http://ncrb.gov.in/BureauDivisions/cctnsnew/CCTNS\\_Dashboard/PRGATI%20dashboard%202017.05%20ver%209.pdf](http://ncrb.gov.in/BureauDivisions/cctnsnew/CCTNS_Dashboard/PRGATI%20dashboard%202017.05%20ver%209.pdf) accessed on July 17, 2017 at 10:46

dependent on its underlying infrastructure – physical, bureaucratic, political and social. In India, police modernisation has seen an exponential growth in the past few years. The growth has been restricted to sanctioning budgets for implementing large-scale tech projects borrowed from the western countries. The implementation of such systems becomes a challenge because of the social conditions on ground, for example, the proficiency of the police officers in computers and their ease with technology. Political resistance to introducing technology in policing stems from collusion of political leaders with criminal gangs; procedures and processes and approvals in bureaucracy delay one of the most important processes of the system – recruiting and training people who will do the job.

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