

## **DOORSTEP SMART POLICING IN INDIA : A CONCEPTUAL FRAMEWORK** **INTEGRATING DIGITAL SERVICE DELIVERY, PROCEDURAL JUSTICE,** **INSTITUTIONAL CAPACITY AND POLICE LEGITIMACY**

*By Siddharth Mahajan<sup>\*</sup>, Dr. Rouchi Chaudhary<sup>\*\*</sup> & Anu Bagul<sup>\*\*\*</sup>*

### **ABSTRACT**

*The integration of digital technologies into policing has transformed the nature of law enforcement and public service delivery in India. Within the broader framework of Digital India and SMART Policing reforms, technology-enabled platforms have reconfigured police-citizen interactions. This paper introduces and conceptualises “Doorstep SMART Policing” as a citizen-centric, technology-enabled governance framework that delivers police services directly to citizens through digital and assisted channels. This framework is to provide the structure to reduce administrative and physical burdens on both citizens and police personnel while focusing on procedural fairness, institutional legitimacy, and democratic accountability. The literature based on secondary sources including government policy documents, official digital platforms, and peer-reviewed literature to develop a conceptual framework linking digital technologies, service design, procedural justice principles, citizen engagement, and empowerment outcomes. Doorstep SMART Policing combines elements of SMART policing, procedural justice theory, citizen-centric governance, and digital public service innovation into an integrated approach that prioritizes accessibility, convenience and the burden of service delivery as means toward legitimacy and empowerment, unique in its orientation. Where previous models have focused on crime control, data analytics or collaborative problem-solving, this framework positions service delivery design as a means of strengthening democratic policing.*

**Keywords:** Doorstep SMART Policing, Digital Policing in India, Citizen-Centric Service Delivery, Procedural Justice, Police Legitimacy, Institutional Capacity.

---

<sup>\*</sup> Research Scholar, Department of Public Policy and Public Administration, Central University of Jammu, India. Email: [0351020.pppa@cujiammu.ac.in](mailto:0351020.pppa@cujiammu.ac.in).

<sup>\*\*</sup> Associate Professor, Department of Public Policy and Public Administration, Central University of Jammu.

<sup>\*\*\*</sup> Research Scholar, Department of Public Policy and Public Administration, Central University of Jammu, India.

## I. Introduction

Policing constitutes one of the fundamental responsibilities of the state and remains central to democratic governance. However, in India the police are put in charge not only of maintaining law and order, but also of preventing crimes, investigating cases, protecting life and property, and safeguarding constitutional rights (Bureau of Police Research and Development [BPR&D], 2019). Historically, policing in India has been structured around station-centric systems characterised by hierarchical authority, command-and-control models, and predominantly physical interactions between citizens and law enforcement agencies. Although these mechanisms provided administrative support, they often resulted in long processes, a lack of accessibility for marginalized groups, and strained relations between police and the public among citizens (Verma, 2005).

The ever-changing nature of ICTs has led to such fast pace technological transformations in public administration globally and has stimulated a lot of structural change, especially on the public administration of law enforcement (Bertot et al., 2016). This transformation has been further galvanized, though, in India through the Digital India initiative with the objective to incorporate technology into governance and the delivery of public service for all sectors (Ministry of Electronics and Information Technology [MeitY], 2015). Policing in this digital governance environment has developed as an important arena, as it interfaces directly with citizens and is a key enabler of internal security and civic welfare (Ministry of Home Affairs [MHA], 2014). Digital policing refers to the strategic use of technologies such as mobile applications, online portals, integrated databases, artificial intelligence, data analytics, and social media to enhance efficiency, transparency, and accountability in policing functions (Afzal & Panagiotopoulos, 2020; Marciniak, 2021). Beyond administrative modernisation, digital policing has introduced new forms of citizen engagement, enabling real-time reporting, direct communication, and service accessibility beyond spatial and temporal constraints.

The existing SMART policing model emphasize data-driven decision-making, technological integration, and organizational accountability to change policing outcomes (Pei, 2025). On the basis of their own understanding of this changing milieu, Doorstep SMART Policing is a major revolutionary paradigm shift in policing that leverages data to reach the needs of the citizen. It prioritizes providing police services directly to a community via digital and mobile technologies, removing a variety of physical, procedural, and cognitive obstacles to justice and assistance with police operations. This conceptualisation builds upon existing theories of SMART policing, community policing, procedural justice, and citizen-centric digital

governance, while introducing an emerging perspective that foregrounds accessibility, convenience, and burden reduction as mechanisms for strengthening democratic policing and public trust.

### *Rationale and Significance*

Although substantial investments have been made in the modernisation and digitalisation of policing in India, a significant conceptual gap persists in understanding how technology can be strategically employed to reduce workload/service burdens on both citizens and police personnel while simultaneously reinforcing institutional legitimacy and public trust. Much of the literature on SMART policing primarily focuses on predictive analytics, crime control strategies, and operational efficiency (Sarzaeim et al., 2023). Similarly, community policing literature largely emphasises collaborative problem-solving and local partnerships between police and communities (Schuck, 2019).

However, comparatively limited scholarly attention has been devoted to conceptualising digital policing as a governance innovation centred on doorstep service delivery and burden reduction. In particular, insufficient emphasis has been placed on how technology-enabled service design can minimise procedural complexity, reduce administrative workload, and enhance access to justice within the policing system.

This study seeks to address this gap by introducing Doorstep SMART Policing as a governance-oriented model that:

1. Integrates technological enablement with citizen-centric service design principles (Bertot et al., 2016);
2. Reduces administrative and procedural burdens on both citizens and police personnel (Ricciardelli et al., 2023);
3. Strengthens perceptions of procedural justice by facilitating accessible, transparent, and respectful service interactions (Tyler, 2017; Mazerolle et al., 2013);
4. Enhances police legitimacy and public confidence by improving the quality and responsiveness of service delivery (Sunshine & Tyler, 2003).

By foregrounding accessibility, convenience, and burden reduction as central governance objectives, Doorstep SMART Policing contributes to contemporary debates on digital governance, police reform, and democratic accountability in India.

### *Research Objectives*

The study aims to examine how digital technologies can be used to make policing more accessible, efficient, and citizen-friendly in India. The specific objectives of the study are:

1. To introduce and conceptualise **Doorstep SMART Policing** as a technology-enabled and citizen-centric model of policing.
2. To analyse how digital platforms such as online portals, mobile applications, and integrated systems can reduce administrative and procedural burdens for both citizens and police personnel.
3. To develop a conceptual framework explaining the relationship between digital service delivery, workload reduction, citizen engagement, and institutional trust.
4. To examine existing digital policing initiatives in India through the perspective of doorstep service delivery.
5. To identify practical challenges and policy considerations for implementing Doorstep SMART Policing in the Indian context.

Through these objectives, the study contributes to discussions on digital policing, administrative efficiency, and public trust in law enforcement.

## II. THEORETICAL FOUNDATIONS AND LITERATURE REVIEW

This paper adopts various theoretical perspectives for conceptualizing Doorstep SMART Policing that have emerged through the lens of the SMART policing philosophy, including procedural justice theory, citizen-centric governance, community policing, and digital public service innovation. This section assesses each of these theories of policing and shows how Doorstep SMART Policing combines and develops each theory within that framework.

### *SMART Policing and Digital Policing*

SMART policing in India as a governance philosophy was articulated by the Hon'ble Prime Minister, Sh. Narendra Modi, in 2014, emphasising the need for policing systems to become **Strict and Sensitive, Modern and Mobile, Alert and Accountable, Reliable and Responsive, and Tech-savvy and Trained** (MHA, 2014). In this sense, SMART policing seeks to embed modernisation, accountability, responsiveness, and technology within the policing system. It encourages data-driven decision-making, professional development, and the ethical use of technology to enhance policing practices.

Afzal and Panagiotopoulos (2020) define SMART policing as the use of data-driven strategies and emerging data sources in policing operations and organisational strategies, highlighting how systematic data use can improve policing outcomes. Contemporary SMART policing approaches increasingly incorporate machine learning, predictive analytics, and integrated data platforms to enhance situational awareness, optimise resource deployment, and strengthen crime prevention strategies (Pei, 2025; Sarzaeim et al., 2023). Similarly, Marciniak (2021) conceptualises digital policing as a socio-technical system that integrates smart sensors, CCTV, analytics, artificial intelligence, human intelligence, and organisational decision-making processes.

However, the growing reliance on technology in policing has also attracted criticism. Scholars emphasise the need for oversight mechanisms, accountability structures, and robust evaluation frameworks to ensure fairness, transparency, and effectiveness in technology-enabled policing (Gstrein et al., 2019; Bowers et al., 2019).

Although much of the existing research on SMART policing focuses on enforcement efficiency and crime control, the concept of Doorstep SMART Policing extends this framework by foregrounding service accessibility, availability, and citizen convenience as core governance objectives. This approach aligns with the broader digital governance paradigm, which emphasises citizen-centred design and the creation of public value (Bertot et al., 2016).

#### *Procedural Justice and Police Legitimacy*

Tyler's (2017) theorization of procedural justice, supported by empirical evidence across contexts, suggests that citizens' experiences of fairness in police processes particularly when they feel heard, treated neutrally and respectfully, and perceive officers as acting with honest intentions are fundamental factors leading to police legitimacy and public cooperation. Legitimacy, in turn, encourages voluntary conformity with law enforcement and willingness to interact with police (Sunshine & Tyler, 2003).

Mazerolle et al. (2013) conducted randomized field trials demonstrating that procedurally just encounters lead to greater public satisfaction, perceptions of fairness, and acceptance of police legitimacy. Their meta-analysis further indicates that dialogue oriented toward legitimacy has a generally positive impact on citizens' confidence, cooperation, and trust (Mazerolle et al., 2013). Similarly, Melkamu (2023) identified a significant cross-cultural impact of perceived procedural fairness, effectiveness, and policing–community relations on trust in policing

situations in Addis Ababa, Ethiopia, suggesting broader applicability of procedural justice principles across contexts.

Within Doorstep SMART Policing, procedural justice is reflected in the structure of service delivery itself. When systems are transparent, accessible, and respectful, they help reduce physical and procedural barriers that may otherwise shape perceptions of neutrality and trustworthiness (Tyler, 2017). However, these outcomes depend on careful attention to digital inclusion, usability, and interface design, as technological systems must remain understandable and fair to all users.

#### *Citizen-Centric Governance and Digital Public Service Innovation*

Citizen-centric governance focuses on responsiveness, accessibility, transparency, and accountability as important factors that drive the delivery of public services, recognizing citizens as decision-makers of public service through governance processes and not just recipients (Bertot et al., 2016). Proposed frameworks for digital public service innovation promote these principles as transparent, participatory, anticipatory, personalized, and co-created (Bertot et al., 2016). Sigwejo and Pather (2016) and Sorn-in et al. (2015) identify five key dimensions for evaluating citizen-centric e-government: accessibility, information and system quality, trust, policy and governance frameworks, and infrastructure.

Mobile platforms and mGovernment strategies are effective mechanisms for achieving broad access and convenience, especially in settings with high mobile penetration (Jarke, 2020). Empirical evidence indicates enhanced accessibility, convenience, and perceived service value leads to heightened citizen satisfaction and trust in government (Hien, 2024). But usability challenges, the digital divide, and privacy concerns may cap these achievements unless interface structure and outreach strategies are carefully thought through (Jarke, 2020).

Doorstep SMART Policing aligns with citizen-centric governance by reconfiguring policing services according to the needs of communities, life events, and citizen convenience rather than being structured around departmental boundaries. This approach requires integration, cooperation, and collaboration across government agencies to provide seamless service experiences (Ozols & Nielsen, 2018).

#### *Community Policing and Citizen Engagement*

Community policing theory emphasizes coordination between police and communities in the recognition of problems, prevention of crime, and public order building. Trust, legitimacy, and

participation are at the heart of this model (Schuck, 2019). Schuck (2019) contends that community policing's focus on citizen interaction and problem-solving may enhance legitimacy because it can be said that the police's policies in these communities resonate with community values and give people voice in matters of policing. Large-scale experimental studies give mixed results. Blair et al. (2021), for example, found that multi-city community policing did not consistently raise citizen trust or lower crime rates in many Global South settings, suggesting that program design, institutional constraints, and political context all are influential. In contrast, localized research suggests that perceived procedural fairness and good police–community relations predict trust in police–community relations (Melkamu, 2023). Doorstep SMART Policing also complements community policing in the form of digital platforms through which to address issues of safety, feedback, and co-production. But unlike community policing, it differs from it in focusing on individual service transactions and accessibility rather than collective problem-solving as the main way to build trust and legitimacy.

#### *Police Workload, Administrative Burden, and Organizational Capacity*

Both police workload and administrative burden have been coming in line with increasing scholarly attention as potential pressures on the roles, stress, and organizational capacity. Duxbury & Halinski (2018) found five antecedents of police work-role overload to be: competing demands, court system obligations, pressures to do work outside mandate, understaffing, and non-supportive organizational culture. Ricciardelli et al. (2023) documented those routine administrative processes especially paperwork for every call for service take significant time and force officers to “catch up” administratively, and create frustration, lower morale, and feelings of being overwhelmed.

Hofer (2021) argues that the growing functional expanse of policing results in chronic work-role overload and role strain. These stressors are linked to higher perceived stress, burnout, work–family conflict, job dissatisfaction, and reduced job performance (McCarty et al., 2019; Sadiq, 2020). The organizational stressors revolve around poor management, lack of resources, and excessive responsibilities (Queiros et al., 2013). Doorstep SMART Policing could reduce administrative workload for officers and police, automate repetitive service transactions, minimize repetitive paperwork, as well as make digital tools available to citizens to take measures on their own. This decreased administrative load might allow for more organizational capacity for the critical policing functions of investigation, crime prevention, and community engagement (Ricciardelli et al., 2023).

*Positioning Doorstep SMART Policing: A Conceptual Contribution*

While previous research has examined SMART policing, procedural justice, citizen-centric governance, and community policing as distinct frameworks, Doorstep SMART Policing brings these strands together within a unified conceptual model. It emphasizes accessibility, convenience, and burden reduction as practical foundations for strengthening legitimacy, trust, and citizen empowerment.

Table 1: Distinguishing Doorstep SMART Policing from Related Concepts

Concept	Primary Focus	Key Mechanisms	Limitation Addressed by Doorstep SMART Policing
Traditional SMART Policing	Crime control, data analytics, operational efficiency	Predictive policing, resource allocation, surveillance	Limited focus on citizen service delivery and accessibility
Community Policing	Collaborative problem-solving, local partnerships	Meetings, foot patrols, joint initiatives	Requires physical presence; may not reduce service transaction burden
E-Policing	Digitalization of records, online complaint systems	Databases, portals	Often agency-centric; may not prioritize user experience or burden reduction
Procedural Justice Policing	Fair treatment in encounters	Voice, neutrality, respect, trustworthy motives	Primarily encounter-focused; less emphasis on service delivery design
Citizen-Centric E-Government	User-focused digital services	Accessibility, personalization, co-creation	General framework; not tailored to policing context and trust dynamics
Doorstep SMART Policing	Accessible, convenient, burden-reducing service delivery	Digital platforms, mobile apps, doorstep services, automated processes	Integrates technology, procedural justice, and citizen-centric design specifically for policing

Doorstep SMART Policing draws upon existing literature on digital governance, procedural justice, and SMART policing. However, to the best of the author's knowledge, , but it has not been previously named, framed, or systematically conceptualized as a distinct governance models. This paper introduces the term and develops its theoretical foundations to inform policy and institutional practice.

### III. RESEARCH METHODOLOGY

This study adopts a qualitative and descriptive design with a conceptual and analytical orientation. It relies entirely on secondary sources to examine governance reforms, institutional practices, and digital transformation within Indian policing. A secondary-data approach is appropriate for developing a theoretical framework and situating it within existing literature, policy and scholarly debates.

The data were drawn from multiple sources to ensure breadth and credibility. These include government policy documents and official reports issued by the Ministry of Home Affairs, National Crime Records Bureau, Bureau of Police Research and Development, and the Ministry of Electronics and Information Technology. Official digital platforms such as the Digital Police Portal, Crime and Criminal Tracking Network and Systems (CCTNS), and the Emergency Response Support System (ERSS-112), along with state police websites and mobile applications, were examined to understand operational features. Peer-reviewed academic literature, including Scopus-indexed journal articles, books, and systematic reviews on SMART policing, procedural justice, community policing, and digital governance, provided the theoretical foundation. Reports from national and international organisations such as the United Nations, World Bank, and OECD were also read, along with credible media sources and official press releases where relevant.

The analysis was conducted using thematic content analysis. The review focused on key themes, including digital governance principles, technology-enabled service delivery in policing, citizen engagement mechanisms, procedural justice and police legitimacy, administrative burden and organisational capacity, and outcomes related to trust and empowerment. These themes guided the synthesis and informed the development of the conceptual framework.

This study is limited to digital policing initiatives implemented in India and does not involve primary data collection such as interviews, surveys, or statistical crime analysis. The proposed framework is therefore conceptual in nature and grounded in the synthesis of existing literature

and policy material. Future research may empirically test the framework through citizen perception studies, impact evaluations, or comparative analyses across states or countries.

#### **IV. EVOLUTION OF POLICING AND INFORMATION TECHNOLOGY IN INDIA**

Policing in India has gradually evolved from a colonial, station-centric model toward more professional and technologically enabled systems in the post-independence period (Verma, 2005). While early reforms focused primarily on administrative control, the adoption of information technology from the 1980s onward marked the beginning of structural transformation within police organisations (BPR&D, 2019). A significant milestone was the launch of the Crime and Criminal Tracking Network and Systems (CCTNS) in 2009, which integrated police stations through shared databases and standardised procedures (NCRB, 2009; NCRB, 2021). The Digital India initiative in 2015 further provided a national policy framework for embedding digital technologies across governance sectors, including policing (MeitY, 2015). Within this broader reform context, the SMART Policing initiative emphasised modernisation, accountability, and technological integration (MHA, 2014). Recent developments such as mobile policing applications, online service portals, and integrated emergency systems like ERSS-112 illustrate the gradual shift toward technology-enabled and citizen-facing service delivery (MHA, 2020). Collectively, these initiatives reflect a shift toward technology-based and citizen-focused policing, providing the institutional foundation for Doorstep SMART Policing.

#### **V. DOORSTEP SMART POLICING IN INDIA: THE CONCEPTUAL FRAMEWORK**

Doorstep SMART Policing is a step up in democratic and citizen-friendly policing in which police services are provided directly to public by technologically-enabled systems. It aims to overcome both the physical, procedural and psychological barriers to the delivery of community-led police activity that traditional, station-based policing has been criticized for producing.

Doorstep SMART Policing is described as a citizen-oriented, people-centric technology-based, tech enabled framework of policing that citizen can access police service to through digital, and assisted approaches so that the police cannot merely send these services to citizens via the police and citizens directly or via technology (the first of these: and, when delivered indirectly and through other means), would alleviate the workload on citizens and the officers through

the digital and assisted systems and would decrease administrative processes and reduce a physical, bureaucratic and procedural barrier.

1. **Accessibility:** Services are available anytime and to anyone, without the need to visits to police stations.
2. **Convenience:** Processes are engineered to reduce the burden on the citizen's ability, time and complexity of procedures
3. **Transparency:** Service status, workflows, and outcomes can be monitored and tracked.
4. **Responsiveness:** Citizen requests are recognized, addressed, and resolved in a timely manner.
5. **Fairness:** All interactions ensure respectful, neutral, and equitable treatment.
6. **Burden Reduction:** Administrative burden is reduced for both citizens and police personnel.
7. **Empowerment:** Citizens are able to access information, assistance, and justice independently

### ***Elements of the Conceptual Framework***

The Doorstep SMART Policing framework consists of interrelated elements that together enable accessible, convenient, and burden-reducing policing services. These elements function collectively rather than independently and are conceptually illustrated in Figure 1.

#### ***Technology Facilitators***

Technology facilitators refer to the digital infrastructure that enables doorstep service delivery.

These include:

- **Mobile policing applications** that allow to register complaints, seek prompt intervention for emergencies, seek service, obtain information about crime/public safety.
- **Online portals** for verification services (passport, tenant, employment), complaint tracking, and grievance redressal.
- **Integrated databases**, such as CCTNS, which support inter-jurisdictional information sharing and standardised case management.

- **Emergency response systems**, including ERSS-112, integrating police, health, and disaster response services.
- **Data analysis and decision-support tools** for trend analysis, planning, and resource allocation.
- **Media and communication platforms** for advisories, public updates, and community feedback.

These technological systems enable real-time information exchange, transparency, and service monitoring (Marciniak, 2021; Afzal & Panagiotopoulos, 2020).

#### *Citizen-Centred Service Delivery*

Doorstep SMART Policing emphasizes service mechanisms that reduce transaction costs and procedural complexity for citizens. Key mechanisms include:

- **Digital report registration**, allowing online filing of FIRs and complaints.
- **Online verification services** for passport, tenant, employee, and antecedent verification through digital submission.
- **Emergency assistance features**, such as panic buttons and location-sharing for rapid response coordination.
- **Grievance redressal platforms** for filing and tracking complaints related to police personnel or service quality.
- **Information and advisory services**, including safety alerts, legal guidance, missing person notices, and public advisories.
- **Doorstep document collection**, where officers collect documents or statements at citizens' residences in selected areas.

These mechanisms reflect citizen-centric design by aligning services with users' needs and life events rather than departmental boundaries (Bertot et al., 2016).

#### *Police Operational Readiness and Institutional Capacity*

Effective implementation of Doorstep SMART Policing requires institutional adjustment and strengthened capacity within police organisations. The framework cannot function properly without internal readiness and supportive structures.

- **Trained staff**, with skills in digital literacy, customer service, and procedural justice principles.
- **Organizational adaptability**, meaning an institutional culture open to technology adoption, citizen engagement, and service quality improvement.
- **Ethical use of technology**, supported by governance frameworks that ensure data privacy, fairness in algorithmic processes, and accountability.
- **Adequate infrastructure and resources**, including hardware, software, connectivity, and technical support systems.
- **Standard Operating Procedures (SOPs)** that clearly define protocols for digital service delivery, quality control, and grievance handling.

Technology does not replace human judgment or discretion; it supports and complements professional decision-making (Marciniak, 2021). To translate technological capacity into improved service quality, continuous training and sustained organizational readiness are necessary.

#### *Citizen Engagement and Participation*

Digital platforms create opportunities for two-way communication and participatory engagement between citizens and police institutions. Participation mechanisms may include:

- **Feedback and rating systems**, allowing citizens to assess service quality and suggest improvements through complaint systems or surveys.
- **Crowdsourcing of information**, where citizens report suspicious activities, traffic violations, or public safety concerns.
- **Public consultations**, using digital platforms to gather input on policing priorities and policy directions.
- **Transparency dashboards**, providing access to crime statistics, service performance indicators, and public accountability data.

Such engagement can strengthen cooperation and shared responsibility for public safety, contributing to what has been described as the co-production of security (Schuck, 2019). However, meaningful participation depends on digital literacy, trust in data protection, and sustained public interest.

#### *Procedural Justice Mechanisms*

Doorstep SMART Policing incorporates procedural justice principles directly into service design rather than limiting them to face-to-face encounters.

These principles include:

- **Voice**, through digital spaces that allow citizens to express concerns and participate in processes.
- **Neutrality**, achieved through standardized procedures and reduced arbitrariness in decision-making.
- **Respect and dignity**, reflected in user-friendly interfaces and professional communication.
- **Trustworthy motives**, demonstrated through transparency, data protection safeguards, and accountability mechanisms.

Procedurally fair service interactions contribute to perceptions of legitimacy and increase willingness to cooperate with police authorities (Tyler, 2017; Mazerolle et al., 2013).

#### *Empowerment Outcomes*

The combined operation of these elements contributes to broader empowerment outcomes.

These may include:

- **Access to Justice**: Reduced barriers to reporting crimes and seeking legal assistance.
- **Trust in the Police**: Increased trust in police institutions.
- **Satisfaction**: Positive experiences of service quality, convenience and responsiveness.
- **Legitimacy** : Improved perceptions of legitimacy.
- **Streamlined Cost** : Reduced time, cost, and administrative burden for both citizens and police personnel.
- **Participation** : citizen participation in public safety processes.

Such outcomes can contribute to democratic governance and social cohesion (Bertot et al., 2016; Tyler, 2017).

#### *Contextual Moderators*

The effectiveness of Doorstep SMART Policing depends on contextual conditions that influence implementation and public uptake. These factors require adaptive strategies rather than uniform application across regions.

Key contextual considerations include:

- **Digital literacy and access:** Variations in technological skills, device ownership, and internet access directly affect usability and participation.
- **Socioeconomic conditions:** Marginalised populations may face additional barriers in accessing digital resources and online services.
- **Urban–rural differences:** Infrastructure gaps, connectivity quality, and service awareness often differ across regions.
- **Language and inclusivity:** Multilingual interfaces and culturally sensitive design are necessary in diverse settings.
- **Institutional legacies and trust:** Historical police–citizen relations influence initial adoption, engagement levels, and sustained usage (Jarke, 2020; Sigwejo & Pather, 2016). Policy and legal frameworks also shape long-term effectiveness.

For these reasons, implementation should incorporate phased rollouts, training, inclusive design strategies, and continuous evaluation to ensure equity and sustainability.

#### 5.4 Description of Conceptual Diagram

Figure 1: Conceptual Framework of Doorstep SMART Policing (Textual Description for Policymakers). The framework can be seen as a multi-layer framework:



Source: Author’s conceptualisation

## VI. DIGITAL POLICING INITIATIVES SUPPORTING DOORSTEP POLICING IN INDIA

This section assesses the key digital policing initiatives in India, focusing on major efforts in digital policing through the lens of Doorstep SMART Policing and examines their translation of the framework elements into practice.

### *Digital Police Portal*

The Digital Police Portal operates through a CCTNS structure that incorporates online services like complaint registration, antecedent verification, passport verification, and tenant verification (NCRB, 2020). By reducing the need for physical visits and enabling online tracking, the portal reflects elements of doorstep service delivery.

### Doorstep SMART Policing Features:

- i. Accessibility: 24/7 access from all locations
- ii. Convenience: No more police station visits
- iii. Transparency: Real-time status of verification requests
- iv. Burden Reduction: Reduced paperwork and queuing time for citizens;
- v. Police processing more streamlined. However, challenges persist with digital literacy among users, knowledge of what services are available, the usability of the interface for all groups of its users (Jarke, 2020).

### Mobile Policing Apps

Many State police agencies have developed mobile applications for citizens to report crimes, upload evidence, share location information and seek police help. It includes features such as panic buttons, anonymous reporting, and multimedia submission that prompt proactive participation.

#### Examples:

- i. Delhi Police App: Crime reporting, traffic challans, tenant verification, women safety features;
- ii. Himachal Pradesh Police App: E-FIR, emergency SOS, missing persons; feedback;
- iii. Mumbai Police App: Traffic updates, cyber crime reporting, senior citizen registration.

#### Doorstep SMART Policing Elements:

- i. Accessibility: Mobile-first design for high smartphone penetration contexts;
- ii. Responsiveness: Real-time alerts and GPS-based emergency response;
- iii. Engagement: Crowdsourced intelligence and community feedback;
- iv. Procedural Justice: Voice through digital channels; respectfully automated acknowledgments. The CCTNS integration, officer training on app-based complaint and feedback to citizen input are central to the effectiveness (Marciniak, 2021).

#### *Emergency Response Support System (ERSS-112)*

The ERSS-112 integrates multiple emergency services (police, health, fire, disaster response) into a single platform accessible via telephone call, mobile app or panic button (MHA, 2020).

ERSS-112 reflects a SMART-oriented approach to direct and rapid service delivery in policing. It promotes **accessibility** through a universal emergency number available across India. It

strengthens **responsiveness** by enabling GPS-based dispatch and coordination among agencies. It contributes to **burden reduction** by providing a single contact point for multiple types of emergencies. Its reliability and response speed also influence public perceptions of effectiveness and trust. However, implementation challenges remain, including infrastructure gaps in rural areas, adequate training of call centre personnel, and effective inter-agency coordination protocols.

### *Social Media Policing*

Police agencies are increasingly employing social platforms (Twitter, Facebook, WhatsApp) for information sharing, public notices, community engagement, and information gathering (BPR&D, 2019). Social media creates two-way communication and brings a human touch to the experience of police.

### Doorstep SMART Policing Elements: -

- i. **Accessibility:** Platforms already used by citizens for communication
- ii. **Engagement:** Direct interaction, feedback, and dialogue
- iii. **Transparency:** Public display of activities, achievements and accountability
- iv. **Procedural Justice:** Respectful tone and responsiveness signal trustworthy motives.

But risks involve disinformation, privacy issues and uneven access to digital services among demographic groups.

### *Mechanisms for Redressing Online Grievance*

Platforms like CPGRAMS (Centralized Public Grievance Redress and Monitoring System) & state-specific police grievance portals help citizens complain about officers or service quality and monitor the resolution (Department of Administrative Reforms and Public Grievances [DARPG], 2021).

### Doorstep SMART Policing Components:

- i. **Accountability:** Established channels for official complainants by citizens
- ii. **Transparency:** Grants status and resolution timelines tracked
- iii. **Procedural Justice:** Complaint processed in a voice and neutral ways
- iv. **Trust:** Institutional capacity to respond to grievances leads to legitimacy.
- v. **Efficiency** hinges on a prompt solution, immunity of the complainants from reprisals and a visible act of systemic change.

## VII. DOORSTEP SERVICE DELIVERY, CITIZEN ENGAGEMENT, PUBLIC TRUST

Doorstep SMART Policing redefines service delivery to deliver policing beyond the physical and time-bound geography of policing. Citizens have access to online platforms where they can conveniently engage with police allowing them to act and accountability. Through synthesizing the evidence about service delivery design, service delivery engagement, and trust.

### *Service Delivery and Accessibility*

Bertot et al. (2016) reinforce this argument by arguing that digital public service innovation should prioritize accessibility, personalization, and anticipatory service design. In a policing context, accessibility would indicate that citizens regardless of geographical or mobility or timetable restrictions are able to access critical services, including complaint filing, verification and emergency help.

Empirical studies of e-government show that accessibility and convenience is associated with greater citizen satisfaction and trust (Hien, 2024). Mobile platforms, to be specific, bring reach with a high mobile penetration context (Jarke, 2020). A digital divide scenario challenges the need for additional offline channels and supported service options for disenfranchised groups (Sigwejo & Pather, 2016).

### *Procedural Justice in Digital Interactions*

Tyler (2017) argues that procedural justice—voice, neutrality, respect, and trustworthy motives is the primary approach to get the public involved with or from law enforcement. Digital platforms make these principles possible through the design choices they bring into operation:

- Voice: Interactive forms, feedback forms and ways to share information.
- Neutrality: Standardized processes, transparent criteria and algorithmic based decisions.
- Respect: Easy to use interfaces; polite automated messages; respectful follow-up.
- Trustworthy Motives: Safe methods to protect the privacy of data, have a clear process of the data, have transparent policy and procedures and also accountability.

Mazerolle et al. (2013) demonstrated through randomized trials that procedurally just encounters provide greater levels of citizen satisfaction, fairness, and legitimacy. While their research was restricted to face-to-face interactions, the principles apply to digital service design

(Tyler, 2017). However, algorithmic processes need to be well governed in order to remain free from bias, ensure explainability, and maintain human review (Gstrein et al., 2019). Transparency around how data is used and what decisions are being made is key to building trust in systems like digital policing.

### *Burden Reduction*

Ricciardelli et al. (2023) examined that routine administrative processes use large amounts of police time and trigger frustration and lower morale. Duxbury & Halinski (2018) identified conflicting demands, obligations to the court, and work that falls outside the mandate as primary causes of role overload. Doorstep SMART Policing can take administrative load off this job with the following improvements:

- Automating Routine Transactions: Using digital verification reduces paperwork.
- Enabling Self-Service: Citizens become self-servicers who solve issues by themselves, as opposed to officers.
- Streamlining Documentation: Integrated databases reduce the need to enter redundant information.
- Optimizing Resource Allocation: Analytics support prioritization of cases and decisions regarding which orders to deploy.

This may enable police personnel to spend more time on investigative work, community engagement, and crime prevention (Ricciardelli et al., 2023) by reducing administrative burden. The realization of these benefits requires the right technological infrastructure in place, training, and the right organizations to put these into practice.

### *Citizen safety*

“Citizen engagement can promote legitimacy in policing, as the efforts to create community-based policing values are likely to be reflected in police procedures” (Schuck, 2019). Digital platforms provide an extended engagement opportunity by means of easy-to-access feedback channels, crowdsourced intelligence, and consultations. However, Blair et al. (2021) found community policing programs did not seem to consistently enhance trust or decrease crime in Global South contexts, meaning that both the program design and context are critically important. Digital participation, to be successful, is contingent on institutional responsiveness, visible engagement with citizen input, and privacy protection of participants in digital engagement (Schuck, 2019).

Doorstep SMART Policing complements community policing and supports SMART policing in two ways. First, it enables local community service transactions that develop trust through quality, convenience, and fairness; second, it gives an opportunity to share and co-produce together.

#### *Trust, Legitimacy and Democratic Policing*

Sunshine and Tyler (2003) demonstrated that perceptions of procedural fairness are primary precursors of perceived police legitimacy and public support for policing action. Melkamu (2023) found that perceptions of procedural fairness, police effectiveness, and positive police–community relations significantly predicted trust in Ethiopian policing contexts. Enhanced responsiveness and transparency through digital platforms further enhance public trust and legitimacy (Bertot et al., 2016). When services are accessible, respectful, and fair, citizens are more likely to cooperate with law enforcement services (Tyler, 2017). Yet trust is tenuous and can be corrupted by data breaches, algorithmic bias, or unresponsiveness to grievance mechanisms (Gstrein et al., 2019).

To improve democratic policing, Doorstep SMART Policing enables:

- Reducing Power Asymmetries: Citizens are given information, a voice, and a means of accountability in digital platforms.
- Enhancing Transparency: Transparency in policies/procedures and measures of performance provides institutional accountability.
- Expanding Access to Justice: People from marginalized groups have access to services without obstacles or barriers related to physical or procedural access.
- Building Reciprocal Relationships: Quality service development results in cooperative police–citizen relations.

### **VIII. CHALLENGES AND LIMITATIONS**

Despite its potential, Doorstep SMART Policing faces multiple challenges that require careful policy attention and adaptive implementation strategies.

#### *Digital Divide and Exclusion*

Disparities in digital content and access to the internet, technology, and literacy pose a danger of excluding marginalized populations, specifically rural dwellers, older adults, financially disadvantaged people, and persons with disabilities (Jarke, 2020). In the event that digital

channels are a predominant source of service delivery devoid of parallel offline offerings, exclusion might exacerbate social inequities.

#### *Data Privacy and Cybersecurity*

Digital policing systems are technology tools that may gather and process private and confidential identities and pose potential risks of data breaches, unauthorized access, and misuse (Gstrein et al., 2019). Confidence in data protection measures determines citizens' readiness to use digital platforms.

#### *Algorithmic Bias and Fairness*

If pre-trained on biased historical data, predictive policing algorithms and automated decision-support systems can reinforce or increase existing biases (Sarzaeim et al., 2023; Gstrein et al., 2019). Transparency in algorithm mechanisms is not afforded, however, and biases in procedural justice perception can be hindered.

#### *Institutional Readiness and Resistance*

The adoption of technology and service quality is heavily impacted by the organisational culture, leadership support and officer attitudes (Marciniak, 2021). Resistance to change, insufficient training and resource constraints will hinder effectiveness.

#### *Infrastructure and Connectivity Constraints*

Rural and remote locations often do not have reliable internet access and electricity availability, which is the lack of power in them, that restricts the extent of digital policing initiatives (Jarke, 2020). Gaps in infrastructure lead to urban-rural inequity in access to services.

#### *Legal and Regulatory Gaps*

Digital evidence validity/data protection requirements (Gstrein et al., 2019), e-signature, privacy laws, and inter-jurisdictional sharing require specific legal architectures. Regulatory uncertainty could impede the application and destroy the confidence of citizens.

#### *Sustainability and Evaluation*

Financing, vendor dependencies, and constant evaluation from a technological perspective, and insufficient resources are also often challenges for technology projects which ultimately lead to sustainability (Bowers et al., 2019). Measuring the impact without systematic impact

assessment is the challenge in assessing whether initiatives have achieved the desired outcomes.

### **IX. Policy Implications**

In order to facilitate the citizen role and empowerment, enabling the development of trust, policymakers need to pursue Doorstep SMART Policing in particular:

1. Digital inclusion: Keep offline channels parallel; invest in digital literacy; have multilingual, and accessible, design; offer assisted services.
2. Data Protection and Privacy: Develop strong data protection legislation; establish cybersecurity protocols; promote transparency in the handling of data; implement independent monitoring.
3. Institutional capacity building: Provide staff with comprehensive training in digital literacy, customer service and procedural justice; encourage leadership commitment; provide sufficient resources and rewards for service; ensure quality service delivery.
4. Ethical Governance of Technology: Perform bias audits of technology; use human oversight in design of algorithms; be responsible and human; add explainability and appeal mechanisms; engage multiple stakeholders.
5. Investment in Infrastructure: Improve connectivity in remote areas; enhance digital infrastructure to reach out to and within marginalized populations; prioritize reliable digital infrastructure to enable digital connectivity to be in place; and physical service points with digital support: have physical service points with access to digital and physical infrastructure.
6. Legal and Regulatory Frameworks: Consolidate digital policing legislation; explain the admissibility of digital evidence; foster inter-jurisdictional coordination; build judicial capacity.
7. Continuous improvement and evaluation: Develop monitoring and policy frameworks; perform monitoring; citizen opinion; disseminate information on citizen perception; publication; use data, data that guide policy changes; evidence-based decision-making.
8. Participation of the citizenry and co-design of the service: Involve the citizenry in design of services; design feedback mechanisms; make institutional responsiveness responsive to the need for feedback; secure citizens' privacy.

## X. OPPORTUNITIES AND FUTURE PROSPECTS.

Nevertheless, despite all of the limitations, Doorstep SMART Policing appears to be a great opportunity for expanding democratic governance, public trust and policing efficiencies in India

### *Emerging Technologies*

There are possibilities in AI, big data analytics, Internet of Things (IoT), blockchain, natural language processing to improve predictive policing, resource distribution, situational awareness, and service customization (Pei, 2025; Sarzaeim et al., 2023). Nevertheless, adoption has to include governance arrangements to protect fairness, transparency, and accountability (Bowers et al., 2019).

### *Integration with Broader Digital Governance Initiatives*

Doorstep SMART Policing can work well-connected with ecosystem-wide applications for 'smarts' approaches to wider e-governance like Aadhaar-based authentication, DigiLocker to store documents digitally, and unified payment interfaces for fine collection. Interoperability and whole-of-government coordination can improve service delivery (Bertot et al., 2016).

### *Citizen Co-Creation and Participatory Design*

By involving the public, civil society groups and technology experts in the co-design of digital policing platforms, enhanced usability, relevance, and trust can be established (Jarke, 2020). Services based on participatory design ensure a variety of relevant, appropriate design needs and contexts.

### *Evidence-Based Policy and Continuous Improvement*

A systematic assessment of digital policing initiatives will incorporate the survey of citizen perceptions and quality of service indicators as part of a continuous improvement process and support evidence-based policymaking (Bowers et al., 2019). Transparent evaluation results add public confidence.

### *Regional and Global Learning*

India can learn from the examples of international digital policing and tailor the model to local circumstance. Indian innovations in mobile governance and large-scale digital infrastructure also offer lessons for other developing countries.

### *Future Research*

Although the conceptual framework of Doorstep SMART Policing was proposed in this paper, empirical validation is crucial. Future research should:

1. Conduct citizen perception surveys to measure satisfaction, trust, and perceived procedural justice in digital policing interactions across diverse demographic groups.
2. Use quasi-experimental or experimental designs to examine how particular digital policing initiatives affect access to services, administrative burden, police workload and trust outcomes.
3. Explore regional differences in implementation, uptake, and effectiveness for contextual influence on outcomes.
4. Explore equity implications to examine whether digital policing is reducing or exacerbating inequalities in access to justice as a result of digital policing.
5. Study organizational dynamics to reveal if institutional culture, leadership, and the training of officers have any impact on the quality of services available, and how policing affects officers' attitudes.
6. Compare international models to find best practice to find contextual adjustments to India.
7. Analyze sustainable digital policing in other countries, such as models of financing, technical capabilities, institutional and institutional resolve to sustain these initiatives as digital policing projects.

## XI. CONCLUSION

This paper has introduced Doorstep SMART Policing as a citizen-focused, technology-mediated model that provides police services to citizens via digital and assisted mediums, with a main aim to relieve both citizens and police personnel of administrative, procedural, and physical burdens and promote trust, involvement, and democratic policing. Doorstep SMART Policing is an innovative model of law enforcement in India, by integrating digital technologies with citizen-centric governance principles and procedural justice constructs, with citizens' governance principles that serve to reform the processes that police use. The framework conceptualizes technology as not only an instrument for crime prevention or administrative efficiency but also as a way to democratize access to policing, ease burden on both citizens and policed authorities, and enhance the legitimacy bases of democratic policing. However, with technology by itself only we cannot hope. Realizing the potential of Doorstep SMART Policing depends on Ethical Governance, Inclusive Design, Institutional Capacity, Legal Framework

and constant Monitoring. Policymakers need to strike a balance between innovation and inclusion, efficiency and fairness, surveillance and privacy, in order to ensure that digital policing is in service to democratic justice and citizen empowerment. With the digital transformation of the Indian governance, Doorstep SMART Policing provides a conceptual pathway for a new narrative of the relationship between the police-citizen relationship in the digital era: one that values accessibility, respect, transparency and trust as essential building blocks of legitimate and effective law enforcement.



## References

- Afzal, M., & Panagiotopoulos, P. (2020). Smart policing: A critical review of the literature. *19th International Conference on Electronic Government (EGOV), Aug 2020, Linköping, Sweden.* (pp. 59-70). [https://doi.org/10.1007/978-3-030-57599-1\\_5](https://doi.org/10.1007/978-3-030-57599-1_5)
- Bertot, J. C., Estevez, E., & Janowski, T. (2016). Digital public service innovation: Framework proposal. In *Proceedings of the 9th International Conference on Theory and Practice of Electronic Governance* (pp. 113-122). <https://doi.org/10.1145/2910019.2910108>
- Blair G, Weinstein JM, Christia F, Arias E, Badran E, Blair RA, Cheema A, Farooqui A, Fetzer T, Grossman G, Haim D, Hameed Z, Hanson R, Hasanain A, Kronick D, Morse BS, Muggah R, Nadeem F, Tsai LL, Nanes M, Slough T, Ravanilla N, Shapiro JN, Silva B, Souza PCL, Wilke AM. (2021). Community policing does not build citizen trust in police or reduce crime in the Global South. *Science*, 374(6571), eabd3446. <https://doi.org/10.1126/science.abd3446>
- Bowers, K., Tompson, L., Sidebottom, A., & Bullock, K., & Johnson, S. (2019). Reviewing evidence for evidence-based policing. In Knutsson, J. & Tompson, L (Eds.), *Advances in Evidence-Based Policing*. Routledge. ISBN 9780367226657. <https://www.routledge.com/Advances-in-Evidence-Based-Policing/Knutsson-Tompson/p/book/9780367226657>
- Bureau of Police Research and Development (BPR&D). (2019). *Data on Police Organizations in India*. Ministry of Home Affairs, Government of India. <https://bprd.nic.in/uploads/dopo/dopo2019.pdf>
- Department of Administrative Reforms and Public Grievances (DARPG). (2021). *Centralized Public Grievance Redress and Monitoring System*. Government of India. <https://darpg.gov.in/en/public-grievances>
- Duxbury, L., Halinski, M. (2018). It's not all about guns and gangs: Role overload as a source of stress for male and female police officers. *Policing & Society*, 28(8), 930-946. <https://doi.org/10.1080/10439463.2017.1342644>
- Gstrein, O., Bunnik, A., & Zwitter, A. (2019). Ethical, legal and social challenges of Predictive Policing. [https://www.researchgate.net/publication/335749347\\_Ethical\\_legal\\_and\\_social\\_challenges\\_of\\_Predictive\\_Policing](https://www.researchgate.net/publication/335749347_Ethical_legal_and_social_challenges_of_Predictive_Policing)
- Hien, B. N. (2024). Digital empowerment in Vietnam: How public sector innovation boosts citizen satisfaction. *Archives Sciences*, 74(2), 124-132. <https://doi.org/10.62227/as/74218>
- Hofer, M. S. (2022). "The light at the end of the tunnel has been permanently shut off": Work-role overload among U.S. police. *Criminal Justice and Behavior*, 49(7), 1070-1089. <https://doi.org/10.1177/00938548211024706>
- Jarke, J. (2020). *Co-creating digital public services for an ageing society: Evidence for user-centric design*. Springer. <https://doi.org/10.1007/978-3-030-52873-7>
- Marciniak, D. (2021). Data-driven policing: How digital technologies transform the practice

and governance of policing. *PhD thesis, University of Essex*.  
[https://repository.essex.ac.uk/30103/1/Data-driven%20policing%20-%20how%20digital%20technologies%20transform%20the%20practice%20and%20governance%20of%20policing%20\(Daniel%20Marciniak\).pdf](https://repository.essex.ac.uk/30103/1/Data-driven%20policing%20-%20how%20digital%20technologies%20transform%20the%20practice%20and%20governance%20of%20policing%20(Daniel%20Marciniak).pdf)

Mazerolle, L., Antrobus, E., Bennett, S., & Tyler, T. R. (2013). Shaping citizen perceptions of police legitimacy: A randomized field trial of procedural justice. *Criminology*, 51(1), 33-63. <https://doi.org/10.1111/j.1745-9125.2012.00289.x>

Mazerolle, L., Bennett, S., Davis, J., Sargeant, E., & Manning, M. (2013). Procedural justice and police legitimacy: A systematic review of the research evidence. *Journal of Experimental Criminology*, 9(3), 245-274. <https://doi.org/10.1007/s11292-013-9175-2>

McCarty, W. P., Aldirawi, H., Dewald, S., & Palacios, M. (2019). Burnout in blue: An analysis of the extent and primary predictors of burnout among law enforcement officers in the United States. *Police Quarterly*, 22(3), 278-304. <https://doi.org/10.1177/1098611119828038>

Melkamu, M. T. (2023). Public trust in the police: Investigating the influence of police performance, procedural fairness, and police-community relations in Addis Ababa, Ethiopia. *Cogent Social Sciences*, 9(1). <https://doi.org/10.1080/23311886.2023.2199559>

Ministry of Electronics and Information Technology (MeitY). (2015). *Digital India Programme*. Government of India. <https://www.digitalindia.gov.in/>

Ministry of Home Affairs (MHA). (2014). *SMART Policing Initiative*. Government of India. <https://www.mha.gov.in/MHA1/Par2017/pdfs/par2015-pdfs/ls-040815/2384.pdf>

Ministry of Home Affairs (MHA). (2015). *Nationwide Emergency Response System (NERS-112): Guidelines*. Government of India. [https://www.mha.gov.in/sites/default/files/2022-08/NERSGuideline\\_2100815%5B1%5D.pdf](https://www.mha.gov.in/sites/default/files/2022-08/NERSGuideline_2100815%5B1%5D.pdf)

Ministry of Home Affairs (MHA). (2020). *Emergency Response Support System (ERSS-112): Implementation Guidelines*. Government of India. <https://xn--i1b5bzbybhfo5c8b4bxh.xn--11b7cb3a6a.xn--h2brj9c/en/commoncontent/nirbhayaerss-section#:~:text=ERSS%2D112%20is%20successfully%20deployed,setup%20in%20the%20Public%20Safety>

National Crime Records Bureau (NCRB). (2009). *Crime and Criminal Tracking Network and Systems (CCTNS)*. Ministry of Home Affairs, Government of India. <https://www.ncrb.gov.in/crime-and-criminal-tracking-network-systems-cctns.html>

National Crime Records Bureau (NCRB). (2021). *Crime and Criminal Tracking Network and Systems (CCTNS)*. Digital Police. Ministry of Home Affairs, Government of India. <https://digitalpolice.gov.in/DigitalPolice/AboutUs>

Ozols, G., & Nielsen, M. (2018). Connected Government Approach for Customer-centric Public Service Delivery: Comparing strategic, governance and technological aspects in Latvia, Denmark and the United Kingdom. *UNU-EGOV Operating Unit on Policy-Driven Electronic Governance*. <https://doi.org/10.13140/RG.2.2.21388.36483>

- Pei, Y. (2025). The integration of artificial intelligence into smart policing systems: Applications and risk governance. *Advances in Management and Innovation Technology*, 1(4), 486-502. <https://doi.org/10.62177/amit.v1i4.486>
- Queiros, C., Kaiseler, M., & da Silva, A. L. (2013). Burnout as a predictor of aggressivity among police officers. *European Journal of Policing Studies*, 1(2), 110-135. <https://doi.org/10.5553/EJPS/2034760X2013001002003>
- Ricciardelli, R., Carbonell, M., Ferguson, L., & Huey, L. (2023). "It's frustrating... I didn't join to sit behind a desk": Police paperwork as a source of organizational stress. *International Journal of Police Science and Management*, 25(3), 516-528. <https://doi.org/10.1177/14613557231188578>
- Sadiq, M. (2020). Policing in pandemic: Is perception of workload causing work-family conflict, job dissatisfaction and job stress? *Journal of Public Affairs*, 22(1). <https://doi.org/10.1002/pa.2486>
- Sarzaeim, P., Mahmoud, Q. H., Azim, A., Bauer, G., & Bowles, I. (2023). A Systematic Review of Using Machine Learning and Natural Language Processing in Smart Policing. *Computers*, 12(12), 255. <https://doi.org/10.3390/computers12120255>
- Schuck, A. (2019). Community Policing, Coproduction, and Social Control: Restoring Police Legitimacy. In book: Political Authority, Social Control and Public Policy (pp.63-77). [https://doi.org/10.1108/S2053-769720190000031007?urlappend=%3Futm\\_source%3Dresearchgate.net%26utm\\_medium%3Darticle](https://doi.org/10.1108/S2053-769720190000031007?urlappend=%3Futm_source%3Dresearchgate.net%26utm_medium%3Darticle)
- Sigwejo, A., & Pather, S. (2016). A citizen-centric framework for assessing e-government effectiveness. *The Electronic Journal of Information Systems in Developing Countries*, 74(1), 1-27. <https://onlinelibrary.wiley.com/doi/pdfdirect/10.1002/j.1681-4835.2016.tb00542.x>
- Sorn-in, K., Tuamsuk, K., & Chaopanon, W. (2015). Factors affecting the development of e-government using a citizen-centric approach. *Journal of Science and Technology Policy Management*, 6(3), 206-222. <https://doi.org/10.1108/JSTPM-05-2014-0027>
- Sunshine, J., & Tyler, T. R. (2003). The role of procedural justice and legitimacy in shaping public support for policing. *Law & Society Review*, 37(3), 513-548. <https://doi.org/10.1111/1540-5893.3703002>
- Tyler, T. R. (2017). Procedural justice and policing: A rush to judgment? *Annual Review of Law and Social Science*, 13(1), 29-53. <https://doi.org/10.1146/annurev-lawsocsci-110316-113318>
- Verma, A. (2005). *The Indian Police: A Critical Evaluation*. Regency Publications.

\*\*\*\*\*