

# Dilemmas of Facial Recognition Technology in Chinese Digital Policing: A Qualitative Exploration

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## Abstract

Facial recognition technology (FRT) has become a central component of China's "smart policing" strategy, promising greater efficiency, improved crime detection, and enhanced public safety. However, its rapid adoption has outpaced the development of clear legal frameworks and oversight mechanisms, creating operational challenges and ethical concerns. Using an ethnographic approach in an eastern coastal city in China, this study explores how FRT reshapes policing practices and highlights its dilemma as both a tool for efficiency and a source of ethical tension. The findings reveal key issues: FRT's strengths and limitations, resource dilemmas behind surveillance blind spots, accuracy challenges and misidentification risks, contradictions in permission management, and ethical conflicts between security and privacy. FRT's deployment also accelerates surveillance normalization, embedding pervasive monitoring into daily life while reinforcing state control at the cost of individual rights. This study highlights the urgent need for regulatory clarity, enhanced oversight, and ethical safeguards. By centering on grassroots officers' perspectives, it offers critical insights and policy recommendations to balance technological advancement with public trust and rights protection in China's digital policing future.

**Keywords:** Facial recognition technology. Digital policing. Surveillance. Ethical concerns. China

## Research Problems

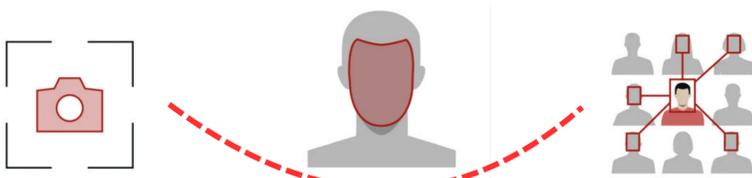
- What are the operational advantages and limitations of FRT in Chinese grassroots policing, and how do these shape its practical utility?
- What ethical tensions and privacy-security trade-offs do frontline officers face in deploying FRT, particularly in balancing efficiency with individual rights?
- How do existing regulatory frameworks and oversight mechanisms influence the normalization and accountability of FRT in Chinese policing?

## Method

- Site: Grassroots station (paichusuo) in southeastern coastal city; pioneered Safe Cities/Skyenet.
- Approach: Ethnography (Feb-Apr 2025); participant observation; 13 semi-structured interviews (40-50 min each).
- Analysis: Thematic analysis via NVivo 14 (open/axial/selective coding); policy docs reviewed.
- Ethics: Informed consent, anonymity; access via guanxi.

## Key Findings

- **Double-Edged Sword:** Advantages in suspect ID, tracking; limits in telecom fraud; monitors high-risk groups.
- **Responsibility & Resources:** Blind spots in urban villages (dense, vandalism); self-funded cameras unsustainable (costs deter businesses/schools).
- **Accuracy & Misidentification:** Environmental factors (lighting, angles) reduce efficacy (e.g., Covid masks, night thefts); risks wrongful arrests (e.g., released with apology).
- **Integrity vs. Efficiency:** Strict permissions delay ops (e.g., shared accounts lead to misuse like spying); unclear boundaries foster workarounds.
- **Security vs. Privacy:** "Security-first" justifies intrusion but erodes trust (e.g., covert collection chills behavior); public mixed: accepts for safety but fears opacity.



## Data

Table 1. Descriptive of Respondent Sample Distribution (N = 13)

Characteristics	N
Genders	
Male	11
Female	2
Age	
22-25	1
26-29	8
30-33	3
Above 34	1
Professional education	
Police academy	9
Others	4
Academic major	
Criminal investigation	2
Public security	3
Network engineer and data security	3
Criminal technological science	1
Others	4
Tenure	
1-3	2
4-6	6
7-9	4
Above 10	1

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