

Smart Cities and Ethical Policies The Challenges of Public Cameras and AI

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Introduction

This research investigates the practical, theoretical and policy implications of city-deployed cameras US cities. Social values associated with privacy, public goods, and open data drive the work. As more cities deploy monitoring and sensing technologies of all sorts, cameras are in the front lines of data-gathering. For example, traffic cameras are used by cities and institutions all over the world to monitor various activities in the name of safety or efficiency. However, there are no commonly accepted standards for the use of the data such cameras provide, leading to concerns about City/State monitoring, particularly as AI and analytics applied to camera outputs become more pervasive and capable.

As the phrase “smart city” has achieved currency, the specifics of what contributes to a city “being smart,” who oversees the component systems that contribute the intelligence to city systems, and what they may mean for individual citizens’ lives remain poorly understood and defined.

Research Questions

- 1) How do citizens and city management conceptualize privacy in smart cities technologies?
- 2) What data management practices are appropriate for algorithmically-derived camera data in the smart city context?
- 3) What data parameters are necessary to use camera data most productively while preserving privacy elements identified in RO1?
- 4) What mechanisms are best for cultivating and improving broad municipal and citizen practices related to ‘being a smart citizen in a smart city?’

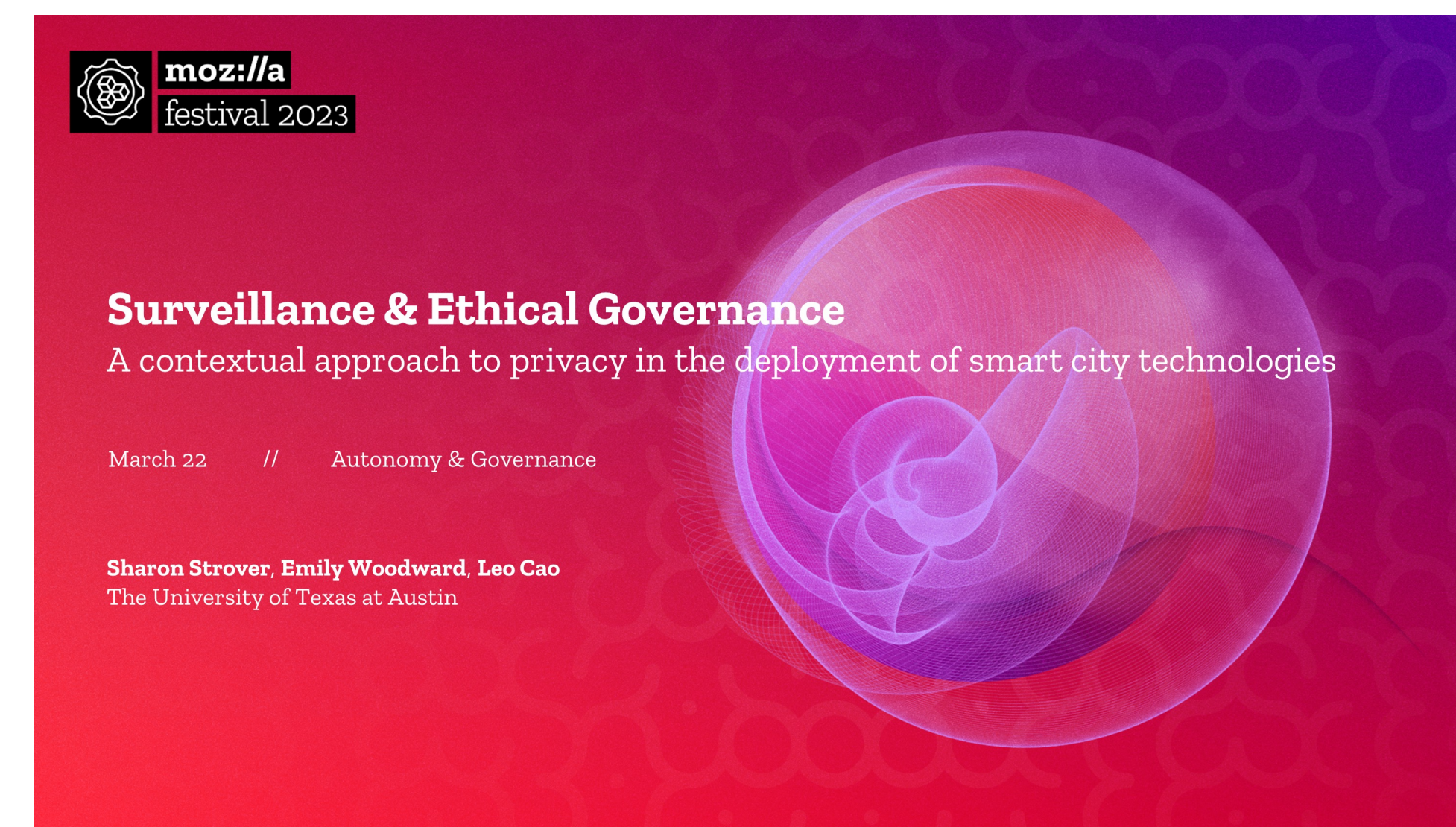
Methods

- 1) Comparative Case Chicago, Detroit, Portland, San Diego, San Francisco, and Seattle
- 2) Delphi Survey: on risks and benefits, governance, technical capabilities, and public engagement
- 3) Focus Group: students, activists, tech workers, local government staff, older adults
- 4) Municipal Department Case Study: Austin Public Library
- 5) Co-design workshop: Mozfest and ICEGOV conferences

Research Highlights

Co-Design Workshop

Surveillance and ethical governance: A contextual approach to privacy in the deployment of smart city technologies



Mozfest – March, 2023 | Virtual



ICEGOV – October, 2022 | Guimarães, Portugal

Citizen Focus Groups

Over the course of the last 18 months, our team has conducted six focus groups with citizens in Austin. These focuses groups have engaged individuals and groups occupying a variety of positions within the Austin community, and focused on understanding their perceptions of privacy and – publicly-deployed camera systems.

Group	# of Participants
Undergraduate Students	6
Electronic Frontier Foundation	6
Engaged Citizens + Activists	7
Tech Executives	4
Tech Workers	5
Older Adults	7

Upcoming: Journalists Focus Group

Our team developed a co-design workshop aimed at addressing AI-based urban surveillance and ethical governance in the digital era. Given the context-specific nature of privacy as a social value, our workshop takes a case study approach, offering participants a fictional vignette based on actual events and inviting them to reflect upon and respond to different ethical issues in the use of surveillance technologies. The workshop focuses on encouraging participants to apply what they have learned in the session and provide critical comments and creative solutions to ethical dilemmas facing cities adopting smart technologies.

Workshop Objectives:

- 1) illuminate the multiple aspects of both surveillance technologies and privacy as they increasingly integrate complex hardware and software in urban environments;
- 2) foreground the ethical issues surrounding the use of these systems;
- 3) brainstorm and co-design alternative ways to safeguard privacy while using monitoring systems for social benefits;
- 4) highlight public engagement strategies for designing good practices with surveillance technologies and establish cooperative and open system designs; and
- 5) explore appropriate contextual differences for using alternative monitoring systems and handling the data they generate.

Austin Public Library Case Study

To further augment our understanding of the surveillance technology landscape in Austin, we identified one city department to conduct an in-depth case study with. During our visits to the Downtown Central library, we have interviewed individuals in multiple library departments as well as received a guided tour of the facilities and smart cameras in use inside the building.

Department	# of Participants
Security	3
IT	2
Front Desk / Library Staff	7
Innovation	1

Upcoming: Library Patrons Focus Group

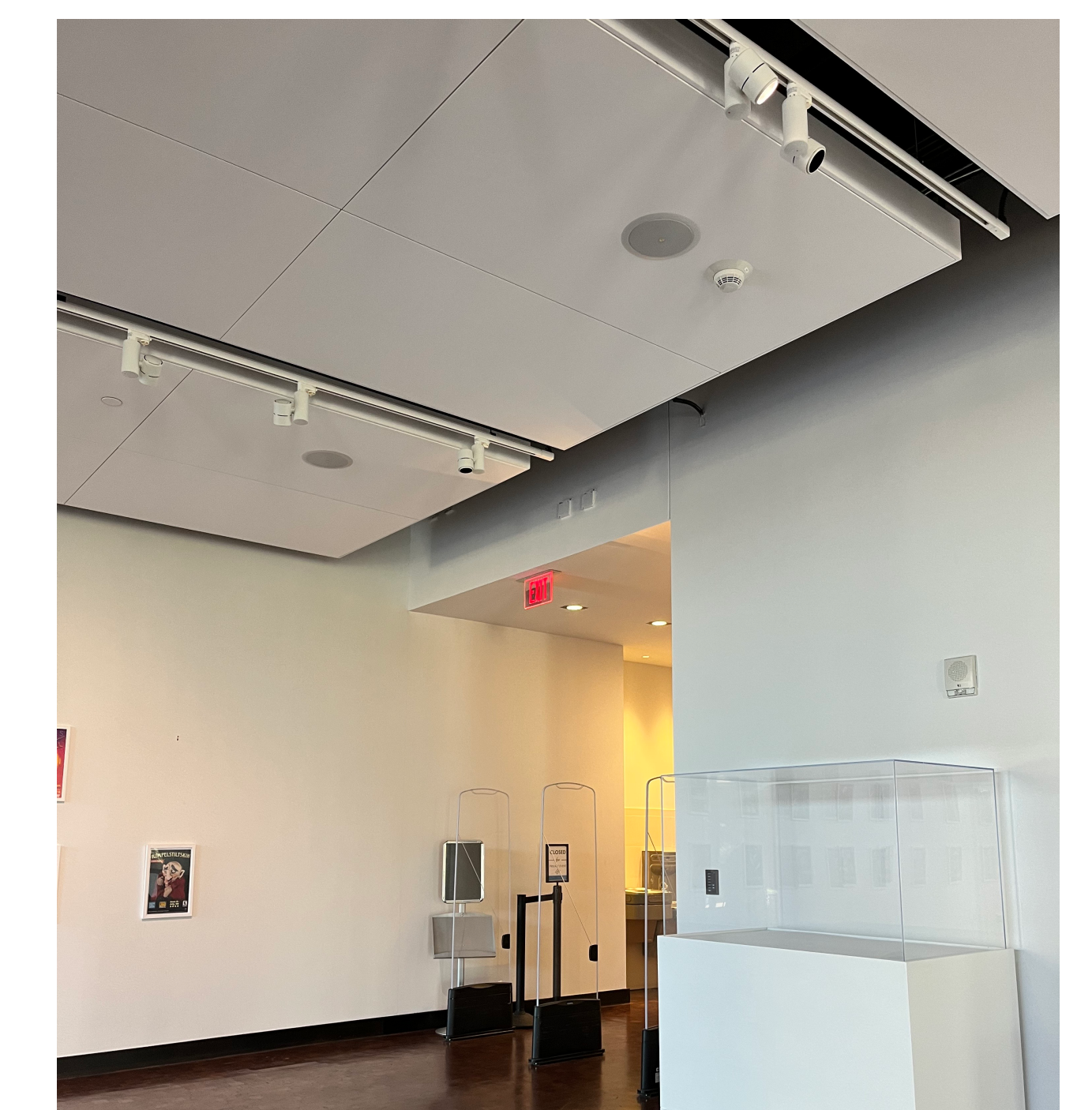
Expected Outputs

- 1) Conference Extended Abstract: Being Watched: Privacy Values and Policies in the U.S. Municipal Context @ The 73rd Annual International Communication Association Conference
- 2) Conference Panel: Authenticity, Transparency and Surveillance Technologies @ The 73rd Annual International Communication Association Conference
- 3) Journal Article: Privacy Values and Policies in the U.S. Municipal Context (in progress)

Case Study Photos



Austin Public Library: September, 2022



Austin Public Library: September, 2022