

Buying Privacy in Digitized Cities

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SIGINT 10

How Are We Watched?

- DNA Tracking
- Public Building Security Cameras
- Private Building Security Cameras
- Public Street Safety Cameras
- Traffic Cameras
- Congestion Metering Cameras
- Red Light / Speed Cameras
- Aerial Surveillance
- Helicopter-mounted FLIR
- Media Consumption Tracking
- Voter Registration Tracking
- Library Book Checkout Tracking
- Professional License Registration
- Wave and Current Buoys
- CO2 Emission Tracking



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- CO2 Emission Tracking
- UV Monitoring
- Pollen Monitoring
- Police Car Mobile Cameras
- Bugs
- Gunshot Detection Microphones
- Data Mining/Data Profiling
- Air Quality Monitoring
- Thermometers
- Hygrometers
- Barometers
- Permanent Traffic Sensors
- Temporary Traffic Sensors
- EZPass/Toll Billing Systems
- Anemometers
- Taxi GPS Tracking
- Insurance Risk Analysis
- Transit GPS Tracking



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- Cell Phone Location Tracking
- Credit Fraud Analysis
- Credit/Debit Card Transaction Tracking
- Foursquare
- Brightkite
- Twitter Locations
- Google Latitude
- Gowalla
- Fire Eagle
- Dopplr
- Tripit
- Hotlist
- Loopt
- Whrrl
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- Cell Phone Location Tracking
- UV Monitoring
- Package and Freight Tracking
- Bank Account Monitoring
- Rainfall Measurement
- Cloud Cover Monitoring
- Taxi Cab Cameras
- Bus/Transit Cameras
- Face Recognition
- Rootkits and Keyloggers
- Streetview Cameras
- Network Traffic Analysis
- Real Estate and Vehicle Sales Record and Registration
- Rental Car/Carshare GPS Tracking
- Security Badge Tracking
- Building Visitor Logs
- Email/Web Monitoring
- Criminal Ankle Bracelets
- Pollen Monitoring
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- Record and Registration
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- Tracking Services



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- Cell Phone Location Tracking
- Vibration Sensors
- Structural Stress Sensors
- Class Break Sensors
- Water Quality Sensors
- Gas Flow Rate Meters
- Energy Spectrum Monitors
- Pollution Monitoring
- Doppler Radar
- Income Tracking for Taxation
- Web/WiFi Location Detection
- Border Control
- DUI Checkpoints
- Turnstile/Manual Foot Traffic
- Counter
- Onstar/Vehicle Status and Location
- Tracking Services
- Lojack
- UV Monitoring
- Package and Freight Tracking
- Social Benefit
- Pollen Monitoring
- Bank Account Monitoring
- Police Car Mobile Cameras
- Rainfall Measurement
- Nuclear/Chemical Sniffers
- Bugs
- Cloud Cover Monitoring
- Motion Detectors
- Gunshot Detection Microphones
- Taxi Cab Cameras
- Power Load Monitoring
- Data Mining/Data Profiling
- Bus Transit Cameras
- Thermal Cameras
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- Real Estate and Vehicle Sales
- Temporary Traffic Sensors
- Record and Registration
- Wiretaps
- EZPass/Toll Billing Systems
- Potential Car/Carshare GPS Tracking
- Polygraphs
- Anemometers
- Security Badge Tracking
- Face Thermal Cameras
- Taxi GPS Tracking
- Building Visitor Logs
- Remote Medical Monitors
- Insurance Risk Analysis
- Alert Systems
- Transit GPS Tracking
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- Functional MRI



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Structures Around Surveillance

- **Secondary uses**
- **Buying and sharing data**
- **Sunk cost**
- **Opportunity leads to abuse**
- **Equality versus aggregation**



Surveillance Can Be Good and Bad

- **Saved by surveillance**
- **Marketed to**
- **Data protection for the rich and famous**
- **Fraud detection**
- **Surveillance in the common good**
- **Personal protection**
- **Surveillance as crime stopper**
- **A consistent pattern**

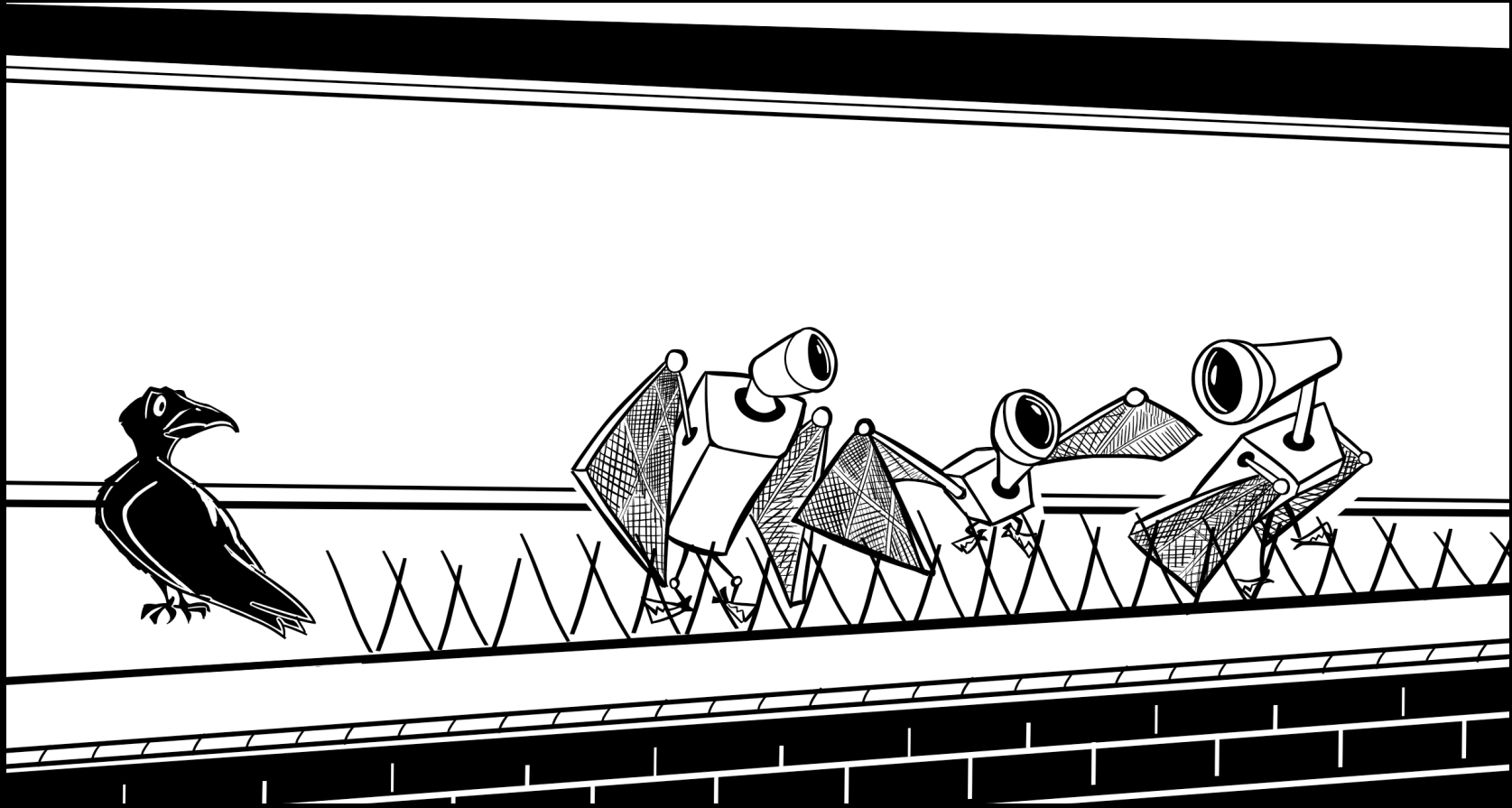


Fixes

- **Documenting the problem**
- **Raising awareness**
- **Working directly with existing projects**
- **Subverting the system**



The Deployable Camera Competition



The Deployable Camera Competition

Functionality:

- Deployability
- Operating life (ruggedness & battery life)
- Video quality
- Network integrity
- Privacy preservation & verifiability

Utility:

- Ease of use (end unit)
- Integration (software)
- Cost
- Constructability
- Documentation quality

Bonus Points:

- Real-world involvement
- Production chain



The Deployable Camera Competition



<http://sldrc.com/projects/deployable>

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Questions?

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<http://sldrc.com/talks/SIGINT10-privacy.pdf>



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SIGINT 10



IF YOU SEE SOMETHING, SAY SOMETHING.

BE SUSPICIOUS OF ANY POLICE BRUTALITY.
Take pictures or video and tell a journalist or lawyer.



SubTalk

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