Surveillance Technologies: efficiency, human rights, ethics
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Outline

• How does one justify the use by police of surveillance technology in a liberal democracy?
• Legitimate purpose and effectiveness
• SURVEILLE methodology for weighing relevant considerations
  • Effectiveness scores
  • Fundamental human rights score
  • Ethics indicators
• Illustrations
• SURVEILLE methodology (over-) emphasizes privacy violations:
  • Bulk collection
Surveillance technology

- Cameras
- Bugs
- Telephone taps
- Automatic Number Plate Recognition
- Location Tracking
- Drag-netting and data-mining
- Personal communications data collection and analytics?
  - Evidence-based target selection and “hops”
  - profiling
Justifying the use of surveillance technologies in a liberal democracy

• State’s special responsibility for security, especially threats to life

• Risks of intrusion, error, and to trust, can be justified in investigation and prevention of serious crime if morally proportionate

• Discretion and secrecy as relaxing the observance of proportionality in practice
Legitimate purposes

• Preventing any crime
  – Preventing serious crime
    • Terrorist attack
    • Murder
    • Money laundering
  – Preventing parking offences
• Achieving fair access to public services
  – Local education
  – Local health services
• Protecting people exercising right to express unpopular views
• Lawful commercial gain
Targeted vs general and inclusive surveillance

- Targeting things and places vs targeting people
- Targeting people for minor offences
- Difficulties:
  - Normal vs abnormal behaviour
  - Discriminatory profiling
- Inclusive camera surveillance
- Communications data collection and analytics
Methodology 1

• What is the purpose?
• Is it legitimate? If yes,
  • What is the technology?
    • Is it legal to use?
    • Is it effective/usable on a scale of 0-10
Components of usability

• Effectiveness
  • Delivery – useful outcome for selected purpose
  • Simplicity – ease of use
  • Sensitivity – accuracy and clarity

• Money cost

• Privacy-by-design

• Overall effectiveness
Methodology 2

• What is its fundamental rights impact?
  • What are the type of circumstances of the technology application?
  • Does the use of that technology in those circumstances compromise an important right? Using a scale of 1 (low rights intrusion) - 16 (high intrusion)
  • Is the judgement of compromise reliable?
  • Multiply usability score by impact score

• Ethical considerations enter where usability score X h-r impact score does not rule out a technology-in-a-context
Usable technology with low h-r impact

• Here is where ethics comes in
• Ethics provides reasons for and against technology applications for legitimate purposes based on moral theories used in moral philosophy
## Examples of Ethics

<table>
<thead>
<tr>
<th>Outcome of assessment</th>
<th>Organized Crime Investigation</th>
<th>Terrorism prevention scenario</th>
<th>Urban security scenario</th>
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<tbody>
<tr>
<td>Acceptable forms of surveillance</td>
<td>Overt use of CCTV in public space Automated detection of explosives or drugs</td>
<td>Checking suitcases of trans-border travelers. Human observation of suspects</td>
<td>Overt use of smart CCTV in public space Automatic number plate recognition</td>
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<tr>
<td>Questionable forms of surveillance</td>
<td>Covert photography in public space</td>
<td>Social network analysis based on social media</td>
<td>Video camera mounted on drone</td>
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<td>Impermissible forms of surveillance</td>
<td>Covert listening device in public transport Covert listening device in a suspect’s home</td>
<td>Interception of all trans-border telecommunications</td>
<td>Sharing CCTV images between private businesses</td>
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Serious crime scenario

1. Intelligence on drug importation by X and Y
2. X and Y meet in a remote location with arms dealer Z
3. Drug plus arms importation
4. Importation Imminent?
5. Bugging public transport?
## The Serious Crime Matrix

<table>
<thead>
<tr>
<th>TECHNOLOGY AND USE</th>
<th>USABILITY</th>
<th>HUMAN RIGHTS AND ETHICAL ISSUES</th>
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<tbody>
<tr>
<td></td>
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<td>Moral risk of error leading to significant sanction</td>
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<tr>
<td>1. Visual spectrum dome—zoom, tilt, rotate (public place – used overtly)</td>
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<td>2</td>
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<tr>
<td>2. Visual spectrum dome—zoom, tilt, rotate (public place – used covertly)</td>
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<td>Covert photography in public place</td>
<td>Sound recording bug in target’s home address.</td>
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<td>3</td>
<td>Covert photography in public place</td>
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<td>4</td>
<td>Sound recording bug in target’s home address.</td>
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<td>5</td>
<td>Sound recording bug in target’s vehicle.</td>
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<td>6</td>
<td>Sound recording bug on public transport used by target.</td>
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<td>7</td>
<td>Sound recording bug in police vehicle transporting target following arrest.</td>
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<td>15. money laundering technology</td>
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<td>16. Networked data analysis</td>
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<tr>
<td>17. Data transfer analysis (name recognition) technology</td>
<td>6</td>
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<tr>
<td>18. Location tracking of cellular phones</td>
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<td>6</td>
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<tr>
<td>19. Mobile phone tap</td>
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<td>3</td>
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</tbody>
</table>
Meta-data and Telephone chaining
Ethical Issues

• Does bulk collection violate privacy?
  – Meta-data vs content
  – Collection vs inspection
    • Human inspection vs machine inspection
    • Network analysis produces patterns
    • Content would be overwhelming
    • Processing of personal information but not as intrusive in the sense of engaging with the value of privacy

• Does bulk collection count as mass surveillance?
  – http://www.thenation.com/article/174746/modern-day-stasi-state
Genuine ethical issues

• Secrecy of bulk collection
• Difficulty of democratic oversight
• Difficulty of monitoring data storage
• Risks of data loss
Contact

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- SURVEILLE materials:
  - https://surveille.eui.eu/