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ADVANCED METROPOLITAN SOLUTIONS

Gemeente
Amsterdam

Shutter CAM



Responsible Sensing Lab

Designing city sensing systems that people accept

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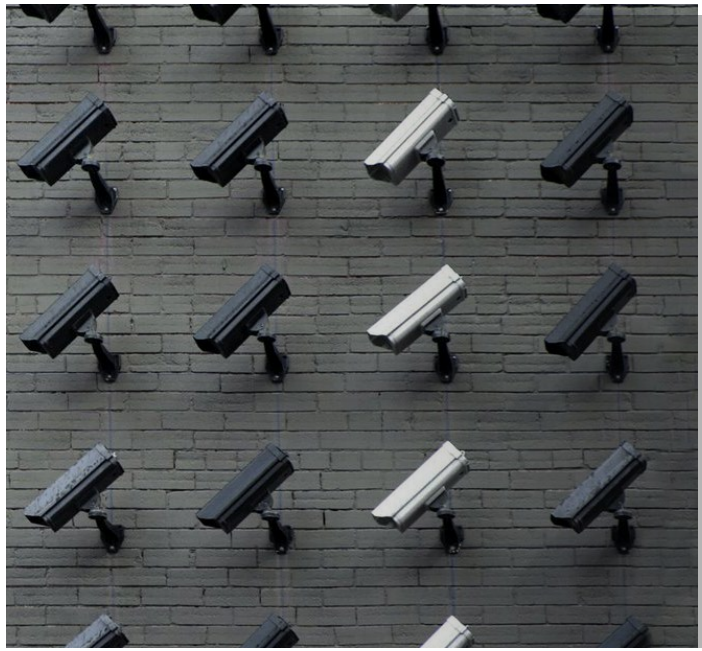
CONTEXT: CAMERAS IN AMSTERDAM

- Cameras increasingly used in the city

- Potential to improve city management, but also vulnerable to **(1) function creep** plus **(2)** contribute to growing the **surveillance state**

- Coalitieakkoord: dataminimalisatie & ‘onbespied door de stad’
  TADA: transparant



How to resolve the tension between the needs for data and public values such as privacy and data minimalism?

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CATEGORIES OF CAMERAS

A. Cameras that should always be on

B. Cameras that should always appear to be on

C. Cameras that could be switched off, with loss of some relevant data

D. Cameras that could be switched off largely without meaningful loss of data

focus



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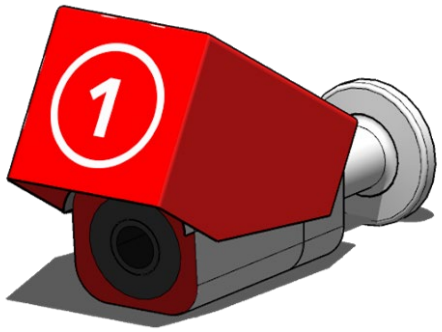
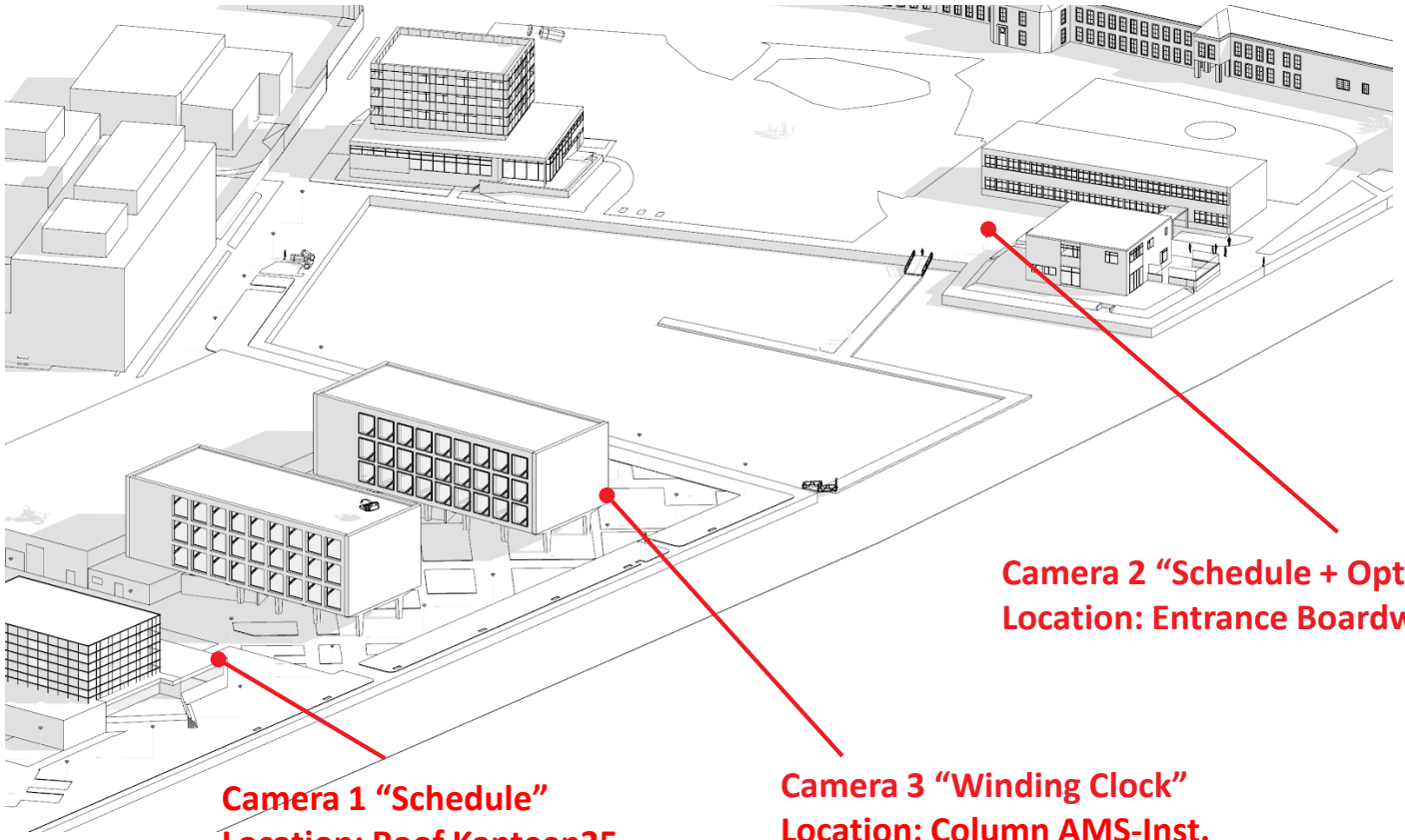
PILOT AT MARINETERREIN

- 9 cameras for crowd-management at Marineterrein
- Measurement is anonymously
- 3 pilots to test Shutter

- Shutter enables visitor to intuitively see if camera is recording
- No prior knowledge needed





CAMERA 1 ”SCHEDULE”

April 1st – September 30st 2021:

- **Weekdays**:
  - 3 PM - 10 PM shutter opened
  - 10 PM - 3 PM shutter closed
- **Weekend days:**
  - 9.00 AM - 10 PM shutter opened
  - 10 PM - 9 AM shutter closed

- October 1st – March 31st, 2022:
  - shutter closed 24hrs



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CAMERA 2 “OPT-OUT + SCHEDULE”

- Same schedule as Camera 1
- Added opt-out mechanism button shuts down for 15 min





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CAMERA 3 ”WINDING CLOCK”

- Time schedule
- Overriding winding mechanism
- Key with observant





Preliminary results

Technical feasibility
- No problem

Observer perspective
- Schedule does not seem to interfere much
- More work needed in next pilot

Citizen perspective
- ➢ Shuttercams are intuitive, however not conspicuous.
- ➢ Mixed reactions about cameras in general
  - ➢ Cameras function predominantly seen as for safety.
- ➢ Generally, people trust in the government, different for private companies.
- ➢ A lot unknown about what happens with the data.
- ➢ More research happening in next 2 weeks



(Privacy-)professional perspective
- Positive (VNG, Ratheneau, BoF, TUDelft, Meliani, Councilmembers, CPA)

Preliminary results (2): a sharper goal & hypothesis

Goal: Democratization of oversight

Informed minority hypothesis (‘Reizigersvereniging Rover effect’)

Can shutters function to help an *interested* minority to oversee the system, protect against function creep?



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NEXT STEPS

Democratization of oversight

Informed minority hypothesis (‘Reizigersvereniging Rover effect’)

Research questions:

Technical, costs & maintainance:
What happens when you apply this to an actual functional monitoring system?

Costs, maintainance, unforeseen effects, etc.

Informed minority & professionals reactions



Purpose of research

- Exploratory

Research at Marineterrein

- 14 participants (24-69 years old)
- Semi-structured Interviews +- 10 min
- All from Amsterdam
- All but one visited Marineterrein before



4 Main Topics

1. Functionality of the Shuttercam
2. Reliability
3. Safety
4. Privacy

FINDINGS FROM RESEARCH / 1.FUNCTIONALITY

Visibility of the Shuttercams

- P1: *“It does not catch the eye, but now that you say so I see it”.*

Trusting the Shutter

- People intuitively understood the shutter
- However, the function of the added windup-mechanism of Camera 3 and the Button of Camera 2 were not immediately clear.

Function of the Camera

- Camera is predominantly viewed as for safety purposes.
- P6 thought Shuttercam 2 was for swimming, others did not know what to make of it (P7; P10; P11).



FINDINGS FROM RESEARCH / 1.FUNCTIONALITY

Function of the Shutter

- Some participants intuitively understood what they were there for (P6, P10).
- Though, after explaining it became clear to all interviewees.
- P9 *“Often you have to believe that you are filmed/measured anonymously, now there is a cap”.*

Function of the information board

- Wind-up mechanisms info board was the least clear
- A lot of text, if the interviewer was not there, they would not have read it.



Most participants perceived the shutter as reliable.

- Some thought there may be errors with the Shutter (P5; P8), or other devices measuring out of sight (P1; P2)

Trust in government

- P4: *"as long as it is in good hands, or there are good regulations I do not have any worries about being recorded".*
- P9: *"I see that the municipality is working on the project, that gives me the trust that the data will be handled in a responsible way".*

Awareness

- Especially Camera 3 creates awareness about privacy and the ease of the placement of sensing devices.
- P7: *"I think it creates awareness around what we're doing. Now when someone leaves a company, the transfer of the sensing systems might get forgotten about"*

FINDINGS FROM RESEARCH / 3. SAFETY

Note: more general findings
> People have no idea of 'measuring anonymously'

Mixed results about cameras adding safety.

- Cameras predominantly create distrust (P1; P2; P6).
- Cameras do not have any effect (P12; P14).
- Others liked the idea of cameras (P3; P4; P7; P8; P11; P13).

People scare each other.

- A possible byproduct of cameras is that they increase the feeling of anxiety:
- P2: *"people only scare on another, think of those neighborhood watch WhatsApp-groups, it is similar with cameras it does not solve the problem".*



What happens with the data?

- P3: *"What is the purpose of collecting this data; what do you try to achieve; what do you do with the data?".*
- P9: *"It is not like the old days, where there were tapes that could be seen once. Nowadays, the data is forever somewhere in a cloud".*
- P11: *"A lot happens behind the scenes that we are not aware of"*

P10: *"It is very easy nowadays for authorities to collect data, it is like a dragnet".*

Government is lagging.

- Participants expressed trust in the government (P3, P4, P5, P6, P7, P11).
- Others, said that mainly tech-companies would be the ones surveilling (P2, P3).
- The Netherlands would never go as far as China, and that this would not be an issue (P3, P6).

“I have nothing to hide”.

- P3, P4, P5, P8 and P11 said that there were law-abiding citizens with nothing to hide.

Internet vs. Public Space.

- Most participant were aware of how they could improve their privacy on the internet but did not think about this in the public sphere.

TAKE HOME MESSAGE

Conclusion

- Shuttercams are intuitive, however not conspicuous.
- Mixed reactions about cameras in general
  - Cameras function predominantly seen as for safety.
- Generally, people trust in the government, different for private companies.
- A lot unknown about what happens with the data.

Take-home message

- Step in the right direction, still some points to improve upon

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TAKE HOME MESSAGE

First thoughts?

Questions?