AMSTERDAM INSTITUTE FOR
ADVANCED METROPOLITAN SOLUTIONS

Gemeente
Amsterdam



Responsible Sensing Lab

Designing city sensing systems that people accept

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SHUTTER CAMERAS

Welcome to the Session!

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CONTEXT: CAMERAS IN AMSTERDAM

- Amsterdam - hundreds of cameras are used to keep the city safe, traffic running smoothly, crowd management, parking, etc
- We are happy to have the GDPR, but some people are still concerned over the city turning into a surveillance city. The idea is to increase privacy and comfort in the design of the cameras (and sensing systems).
- Depending on the purpose, many of these cameras could be switched off and sometimes are indeed switched off.
- Obviously, we get necessary for some of these cameras to be switched on or to appear to be switched on for safety and security reasons.

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PROJECT IDEA

- The basic idea behind this project is that not all cameras record/ need to record data at all times.
- This creates an opportunity for maximizing privacy-by-design and increasing transparency in the surveillance system for the citizens.
- By outfitting cameras with shutters, **we change the question from whether there should be a camera, to at what times it is allowed to view- increased comfort.**

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CLASSIFICATION OF CAMERAS



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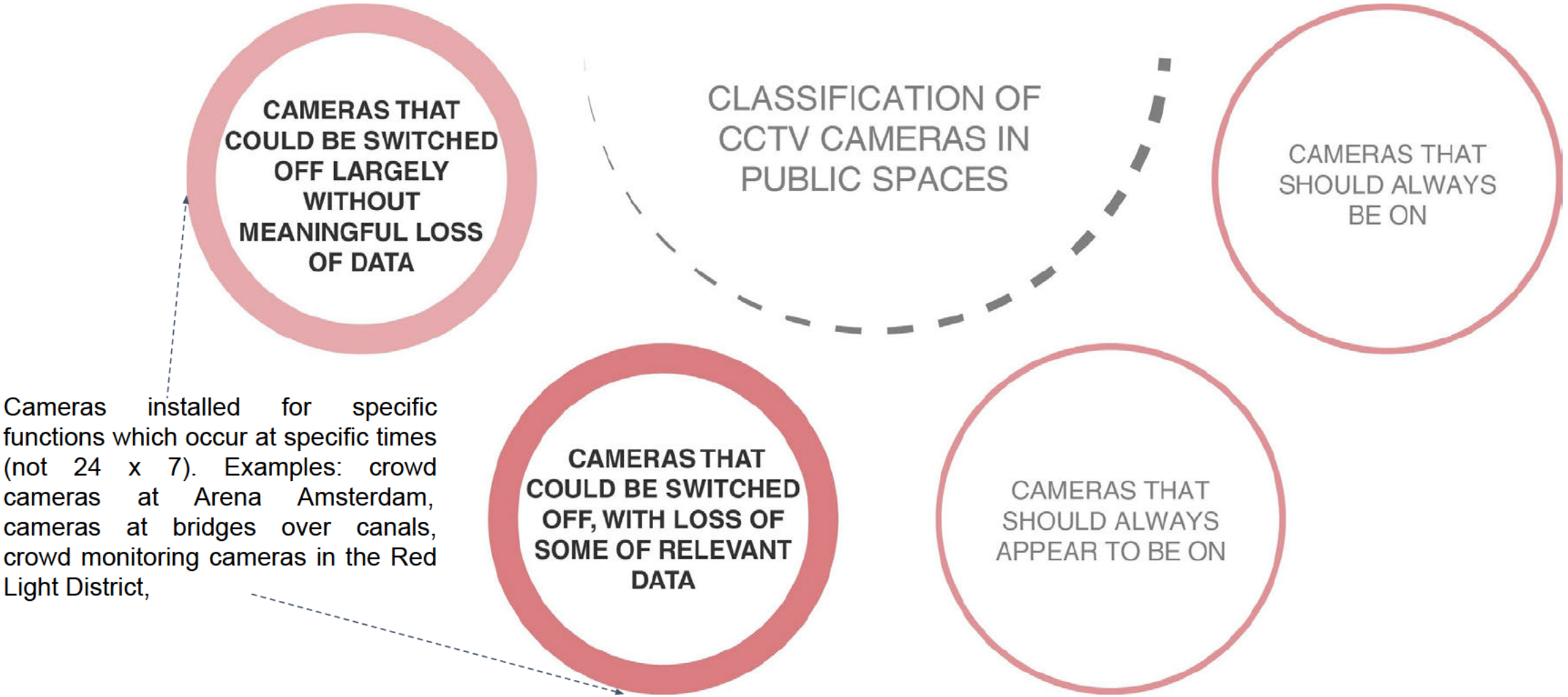
CAMERAS IN FOCUS



Cameras installed for specific functions which occur at specific times (not 24 x 7). Examples: crowd cameras at Arena Amsterdam, cameras at bridges over canals, crowd monitoring cameras in the Red Light District,

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POSSIBLE CASES- Cameras on Canals

CASE OF CAMERAS ON BRIDGES

The cameras at the bridges over the canals are installed to check if there are any people on the bridge when the bridge needs to open.

At other times, these cameras can be closed without loss of much significant data.



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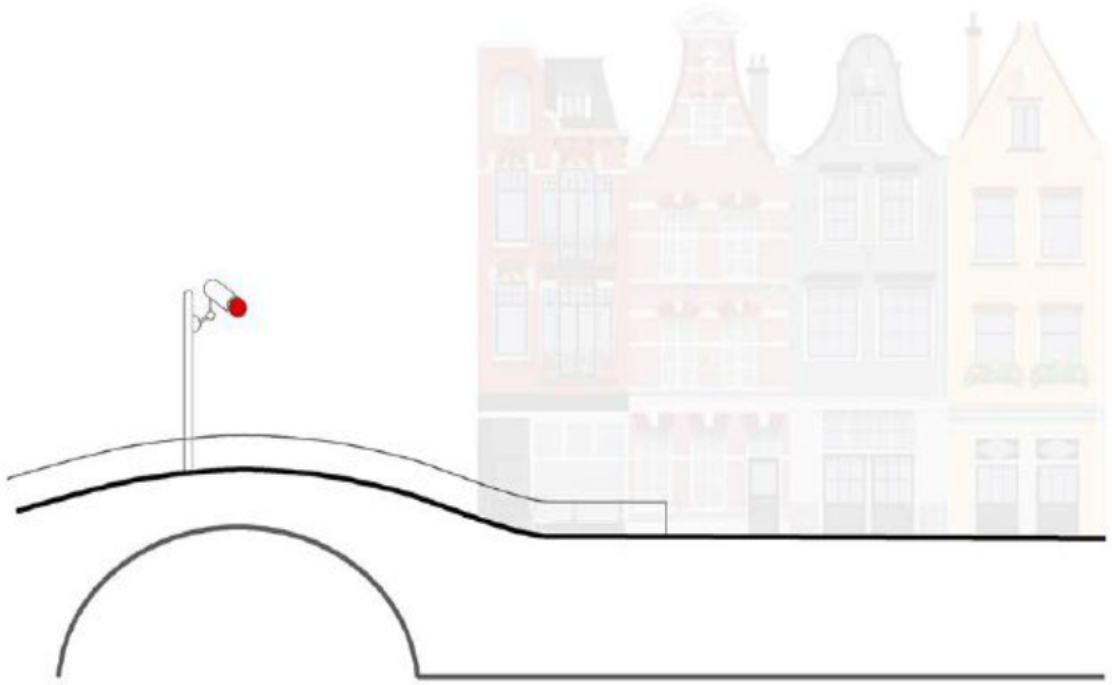
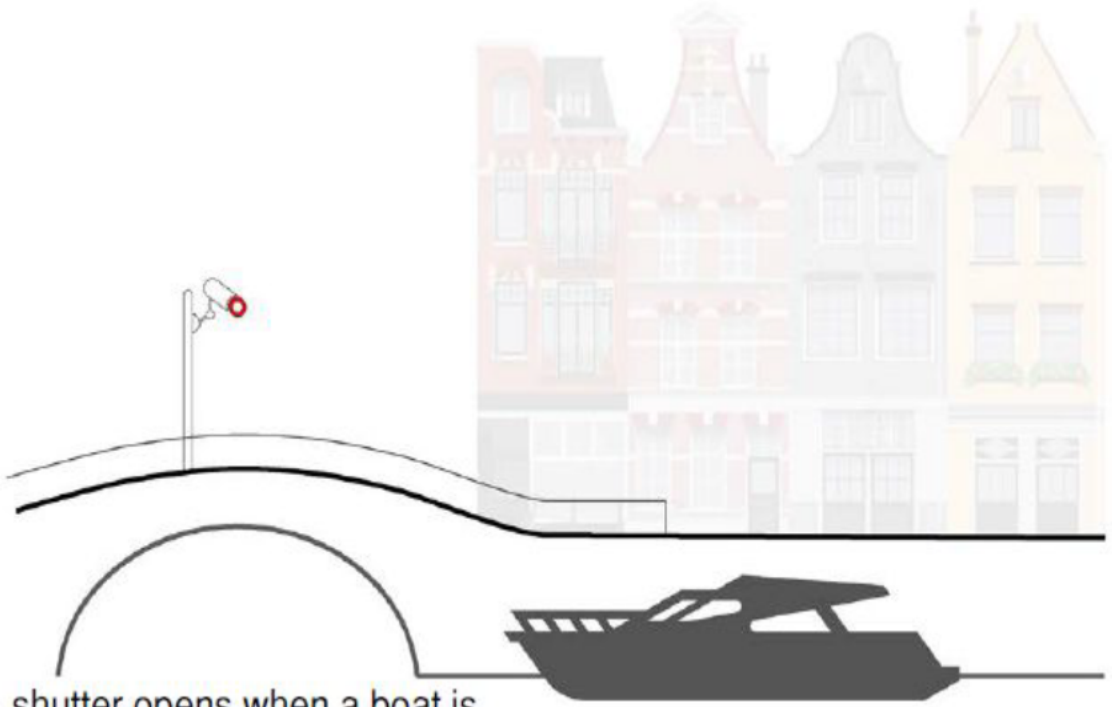
POSSIBLE CASES- Cameras on Canals



shutter closed at all other times



shutter opens when a boat is approaching

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POSSIBLE CASES- CMSA at Arena Amsterdam

CASE OF CAMERAS AT AMSTERDAM ARENA

The cameras at the Amsterdam Arena Boulevard are installed to monitor crowds during matches and events at the arena.

These cameras are controlled by private companies and not by the municipality. They are constantly recording activities in a public place.

When there are no events at the arena, these cameras do not need to record this data.



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POSSIBLE CASES- CMSA at Arena Amsterdam



In June, events on only 4 days out of 30, only for some hours per day.
The cameras need not be recording data at all other times.

Recording unnecessary data for 26 days in June 2020?

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POSSIBLE CASES- CMSA at Red Light District

CROWD MANAGEMENT CAMERAS IN THE RED LIGHT DISTRICT

The crowd monitoring cameras at the Red Light district in Amsterdam are installed to monitor crowd behavior and sense various aspects of crowd activities. They need not be recording at times of less crowdedness like in the early morning hours when there are no tourists in the area.



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INSPIRATION : SHUTTER APPROACH



To make evident if a camera is recording at the moment or not, a simple low-tech shutter system can be used.

(Inspired by the instinctive low-tech sliding shutters used in laptop cameras)

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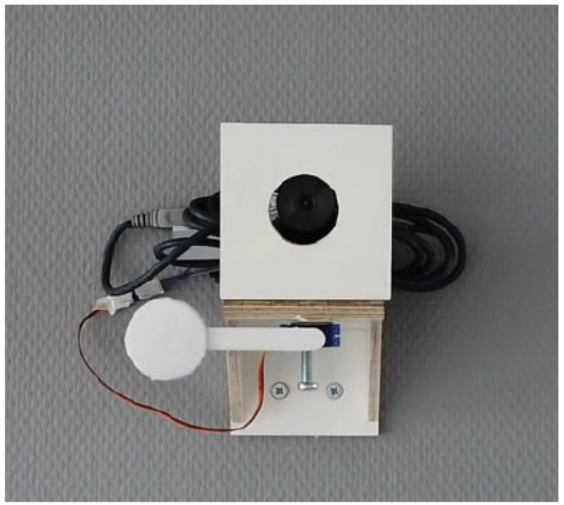
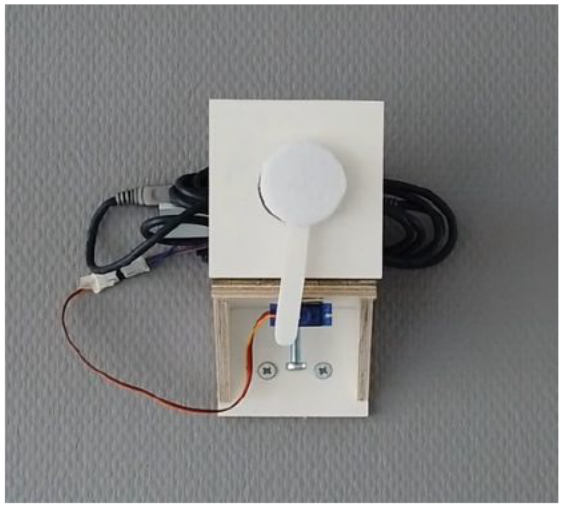
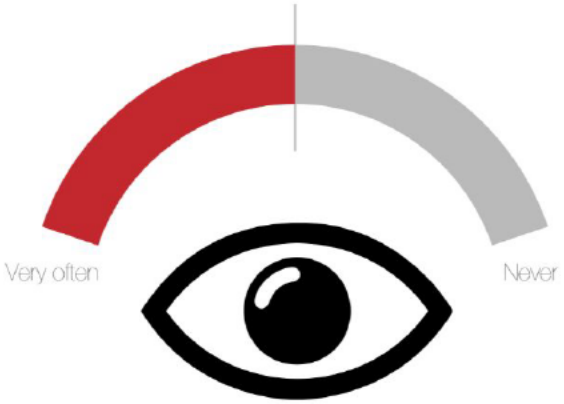
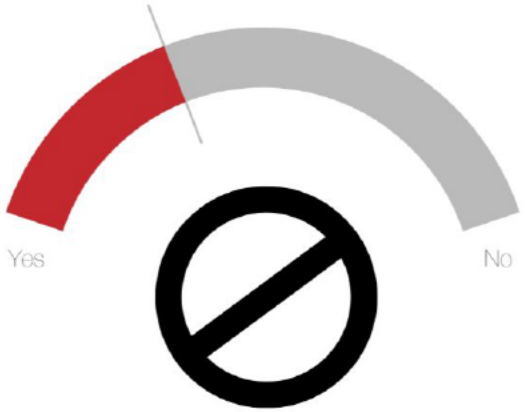
FIRST PROTOTYPE







HOW OFTEN DO YOU NOTICE CAMERAS IN PUBLIC SPACES?



DO YOU THINK A PHYSICAL SHUTTER COVERING THE CAMERA IS A STRONG INDICATOR OF NOT RECORDING?



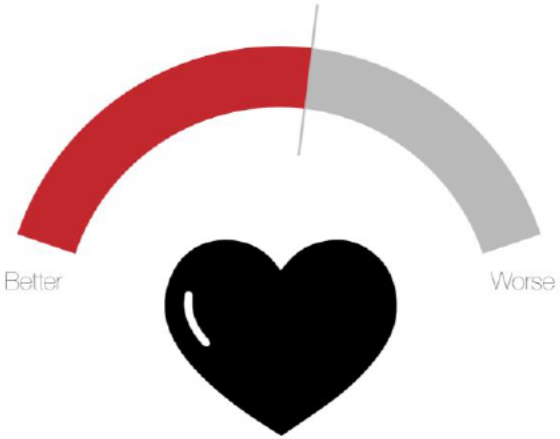
DO YOU THINK YOU WOULD FEEL MORE COMFORTABLE IF NOT CAMERAS WERE RECORDING DATA AT ALL TIMES?



PRIVACY



SAFETY



COMFORT

HOW DO YOU FEEL ABOUT CAMERAS IN PUBLIC SPACES?

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PROPOSAL: SHUTTER SYSTEMIC APPROACH

PHYSICAL SHUTTER

- visible
- intuitive
- guarantee
- transparency
- informing people
- citizen engagement



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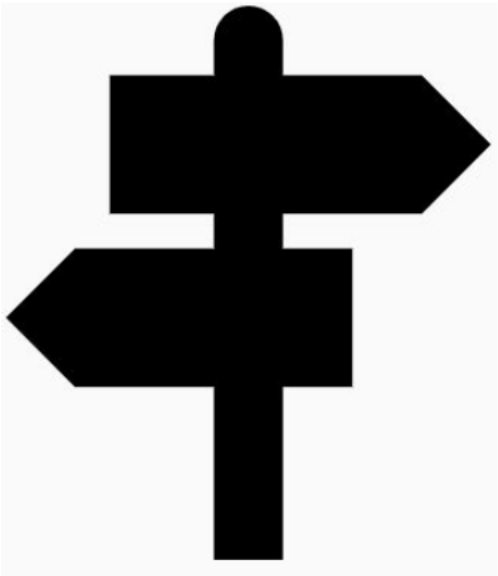
PROPOSAL: SHUTTER SYSTEMIC APPROACH

SIGNAGE





PHYSICAL SHUTTER



DIGITAL



CAMPAIGN

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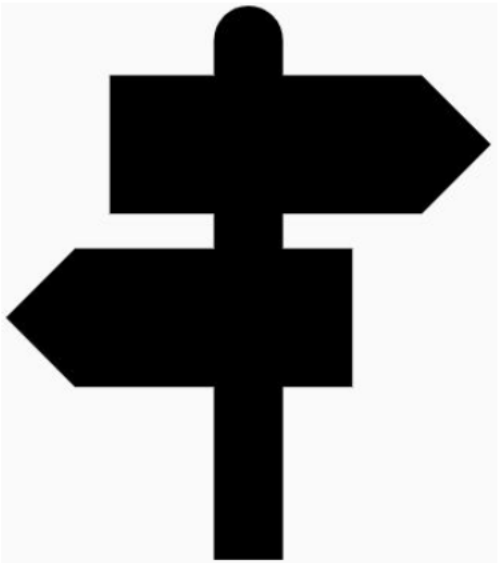
PROPOSAL: SHUTTER SYSTEMIC APPROACH

SIGNAGE

- physical interface
- information
- visible at eye level





PHYSICAL SHUTTER

- intuitive
- guarantee
- visible



DIGITAL

- informing people
- getting feedback
- transparency



CAMPAIGN

- temporary
- catalyst
- awareness
- citizen engagement

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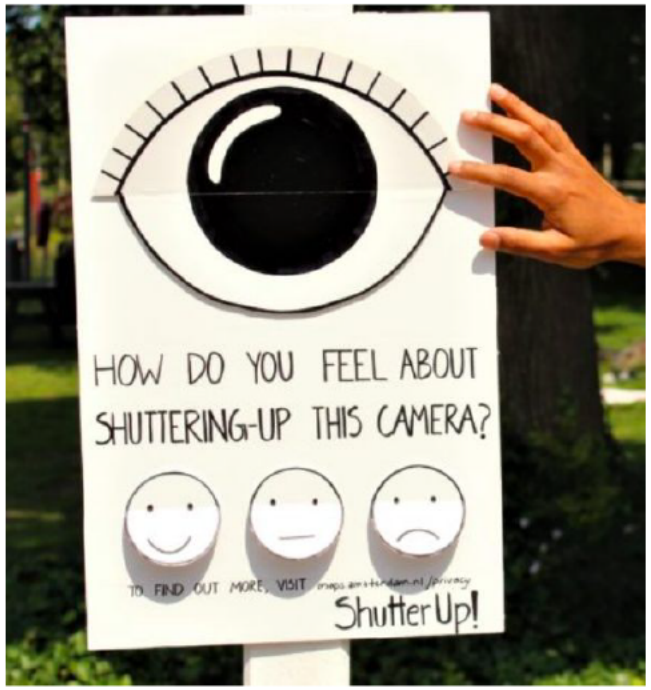
FIRST ITERATION- RESEARCH BY DESIGN

SIGNAGE

- physical interface
- information
- visible





PHYSICAL SHUTTER

- visible
- intuitive
- guarantee

DIGITAL

- informing people
- getting feedback
- transparency





CAMPAIGN

- temporary
- catalyst
- awareness
- community

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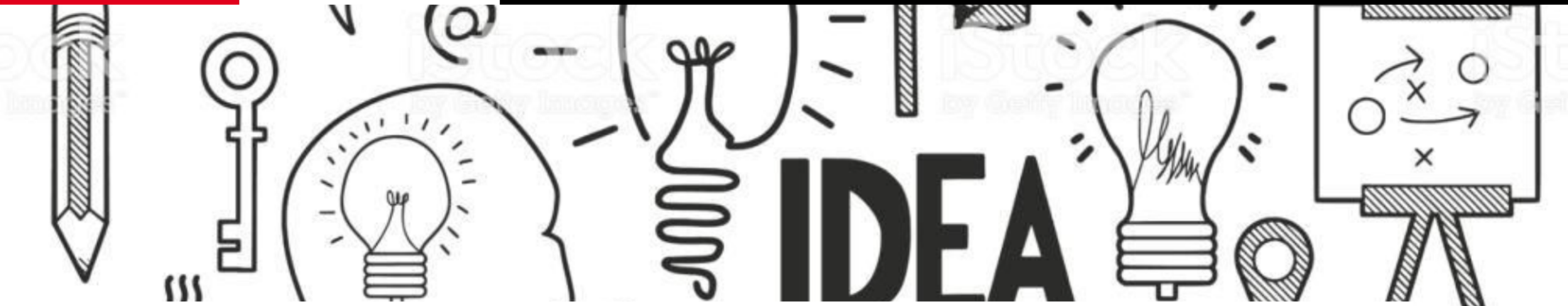
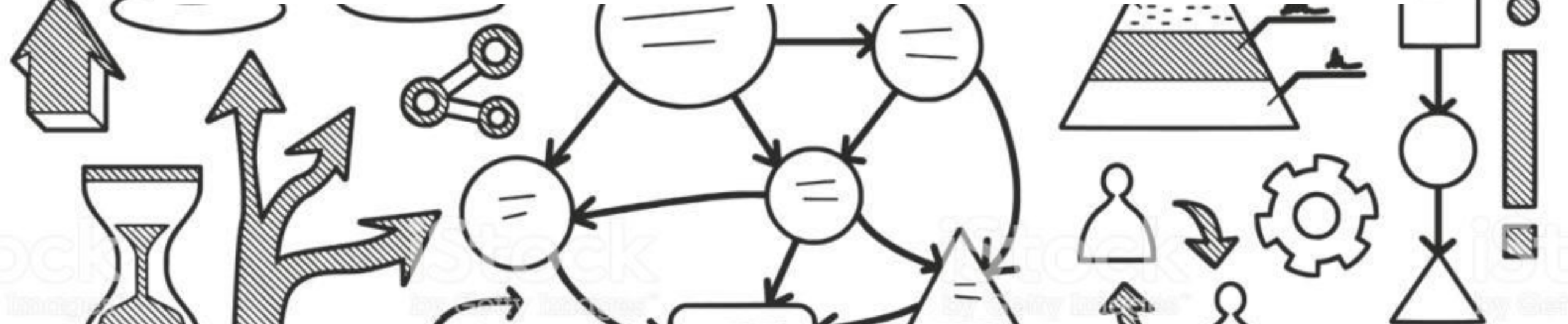
PROTOTYPE- INITIAL THOUGHTS



Do you follow? Any urgent questions?



INITIAL EXPLORATION : QUALITATIVE INTERVIEWS



Date:

- 13th July 2020

Location:

- entrance to swimming area at Marine Terrein in Amsterdam

Citizens Interviewed:

- 17 people
- 20-60 years old
- 15 live in Amsterdam and go to Marine Terrain often
- 2 tourists

Interviews were recorded and analysed with thematic analysis

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PROTOTYPE 2



Research through Design approach:
the prototype as a conversation starter

Aim of the interviews:

1. understand citizens' experiences about cameras in public space
2. test the systemic approach (and which elements were most important)
3. understand the relationship between visibility and shutting off cameras and citizens' comfort

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FINDINGS FROM USER INTERVIEWS



1- Lack of information about camera's goals

"I read about cameras and privacy in the news, but I am not confronted with that in my everyday" - P12

"I am not sure what the cameras are recording" - P11

"I haven't noticed the cameras. I wonder why are they there. Is it for security? " "I would like to know the reason why it is on or off" - P9

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FINDINGS FROM USER INTERVIEWS



2- Positive responses about the goal of the prototype, but mixed responses about the solution in relation to comfort

"I got irritated when I noticed the camera" P10

"I will not really search for the sign- if I came here early in the morning to swim and the sign was closed, i wouldn't find it comfortable- especially if there are vagrants around" P8

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FINDINGS FROM USER INTERVIEWS



3- Systemic approach worked well. Elements need to be adjusted for clarity, coherence, visibility, and subtleness

"The shutter is important because I can see when it is on/off. The idea of the sign is good but it's not very clear at the moment. The campaign is also important because awareness is crucial with this issue. An online platform is also good for that" P3

BREAK-OUT SESSION: SWOT ANALYSIS

What are the strengths and weaknesses of the proposed system?

You will be divided into groups of 3-4 in breakout rooms for 10 minutes to discuss.

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GROUP 1-

STRENGTHS

- data minimization
- visibility - transparency (not only saying, but giving physical guarantee)
- we don't trust things even if we own them (tech)
- more information can open up discussion about cameras (even if they should be there)

WEAKNESSES

- cameras are only one way of surveillance
- people don’t think about it anymore (polderen)
- how big is the lack of trust?
- High level of conflict

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GROUP 2-

STRENGTHS

- good approach in general
- choices are non-binary
- good concept
- people trust in professionals
- physical design intervention is strong to give guarantee- creates dialogue

WEAKNESSES

- this is an action that might create less trust- counterintuitive- might create less trust and then you create a guarantee of trust
- how important is it for people to know about the privacy infringement -
- physical vs digital- opt in vs opt out- is it about individual choice- puts responsibility of privacy maximizing on people

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GROUP 3-

STRENGTHS

- ‘low tech solution’ very little side effects
- explanation of reasons for camera, authority, etc.
- idea: could we focus on subset of cameras where we give users control over shutter opening and closing?

WEAKNESSES

- does not lead to no less cameras, no control over shutters (panopticon does not decrease)
- Question: how can people do something about their feeling of discomfort by cameras
- Could be used as justification for additional camera’s

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ANECDOTES: PUBLIC COMMUNICATION



How do you communicate information to citizens about ongoing developments?

What is the key information that needs to be communicated?

Please share your success and failure stories.