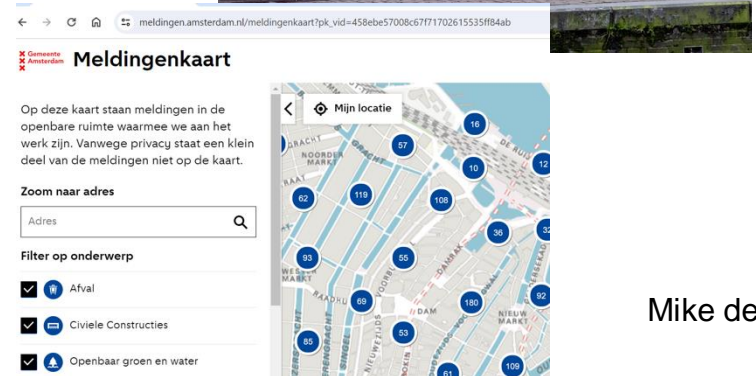


Re-design for professional leeway and community agency in existing urban technologies

Reinventing the city 2024,
April 22, AMS, Amsterdam



Mike de Kreek

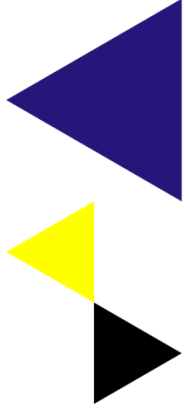
Smart City Tech in Public Spaces

Consequences

- The unintended
- The unwanted
- The predicted
- The speculated



- Sharing experiences of this journey
- Recognition / critique
- Explanations / improvements
- Collaboration/ follow up
- Existing texts



*Cities of Amsterdam, Den Haag, Rotterdam
Amsterdam University of Applied Sciences
Delft University of Technology
Amsterdam Institute of Advanced Metropolitan Solutions
Waag Smart Citizen Lab
Tapp, City of Things, ThingsCon, Arvoo*

HUMAN VALUES FOR SMARTER CITIES

Designing Understandable Machine-Vision
Systems in Public Spaces

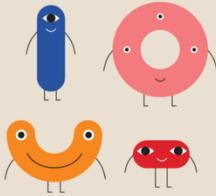


The 6 principles of our manifesto:

01

Inclusive

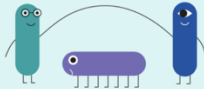
Our digital city is inclusive. We take into account the differences between individuals and groups, without losing sight of equality.



02

Control

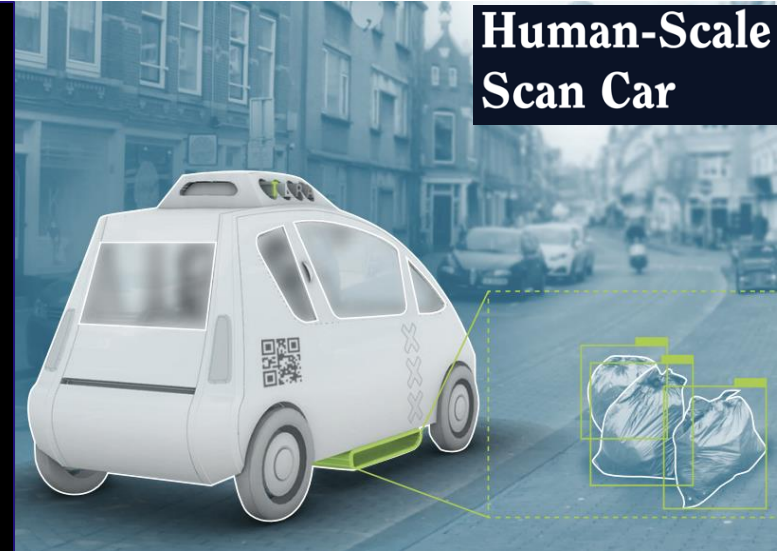
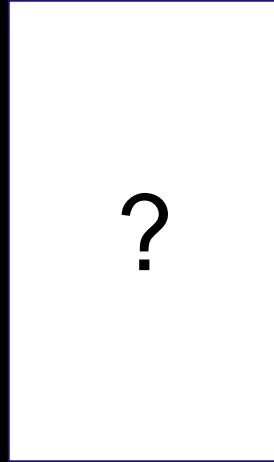
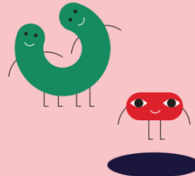
Data and technology should contribute to the freedom of people. Data are meant to serve the people. To be used as seen fit by people to benefit their lives, to gather information, develop knowledge, find room to organise



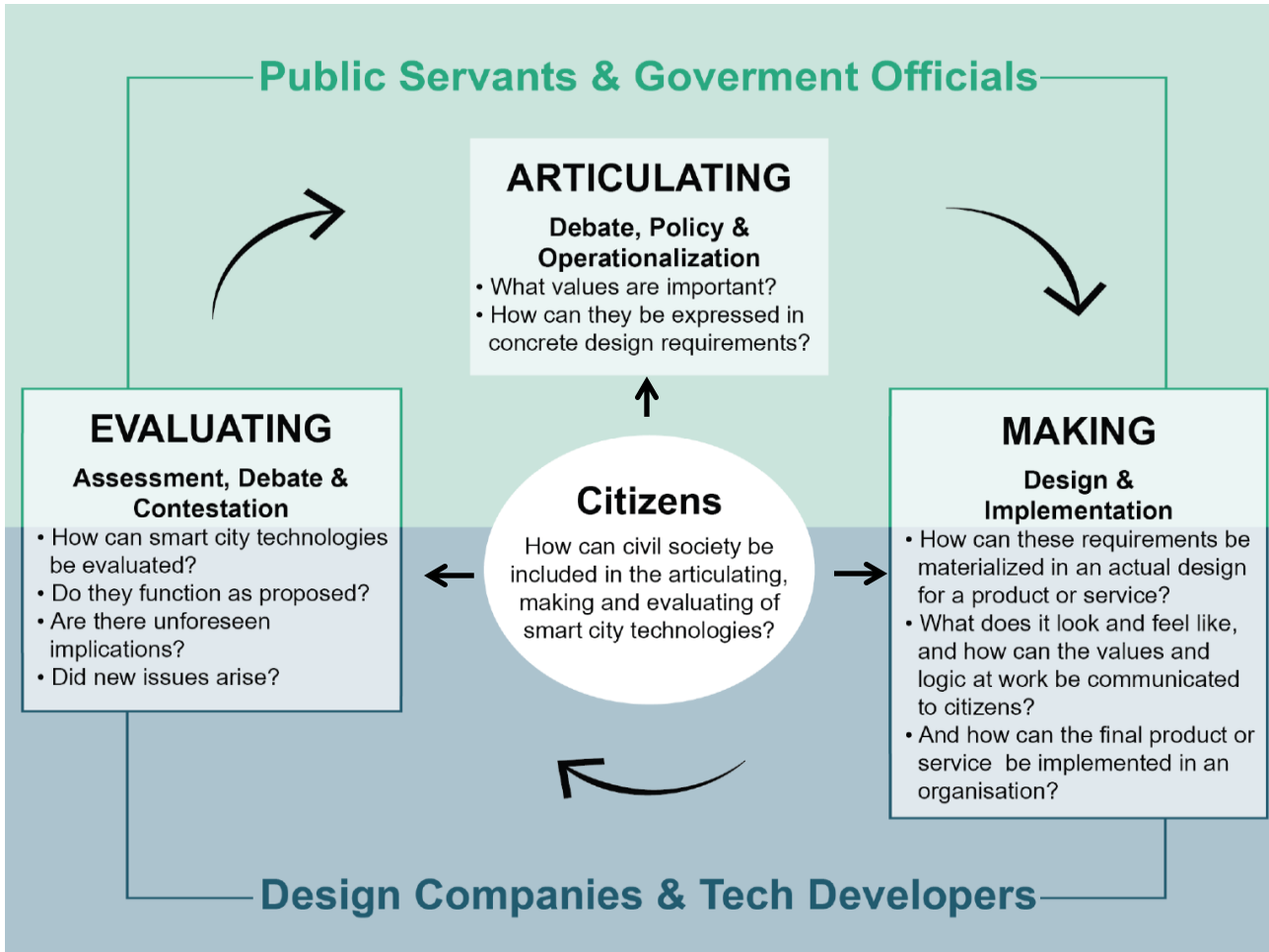
03

Tailored to the people

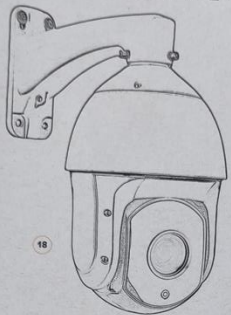
Data and algorithms do not have the final word. Humanity always comes first. We leave room for unpredictability. People have the right to be digitally forgotten, so that there is always an opportunity for a fresh start.



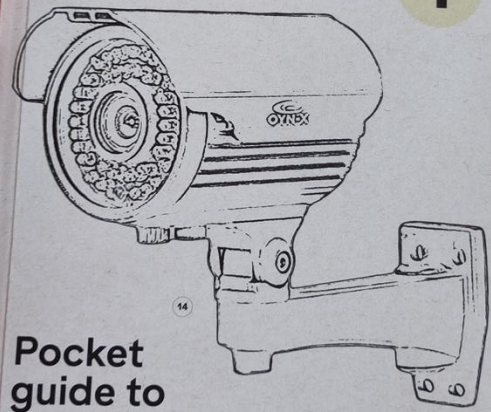
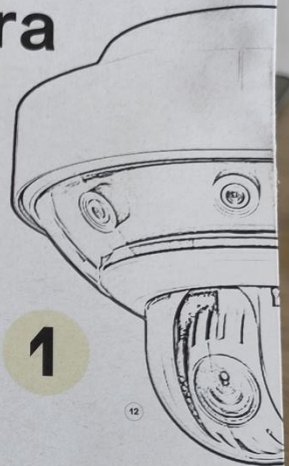
Keep the city clean, safe and well-maintained
Urban technology in public spaces
“Smart” City Technology
Human values?



On camera

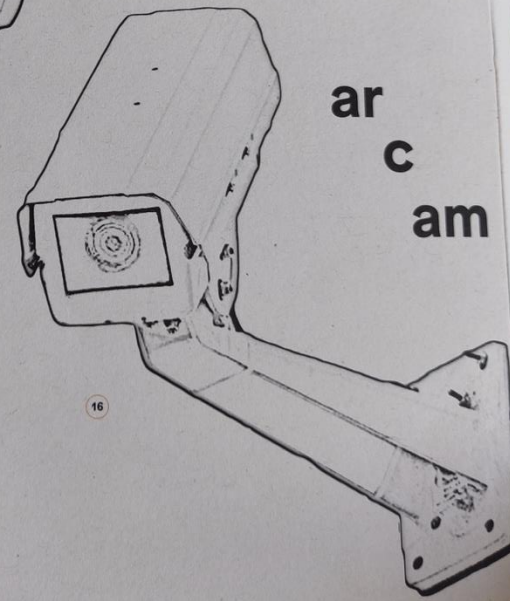
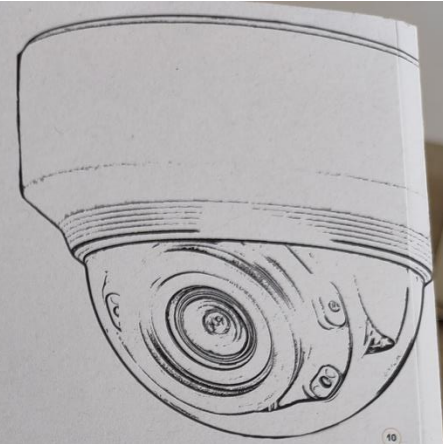
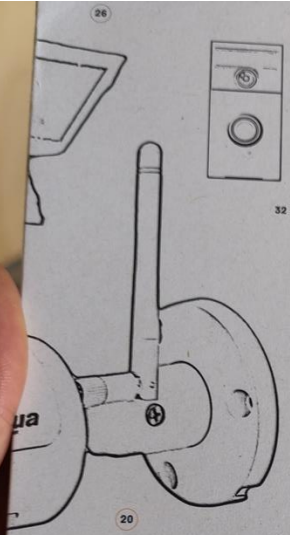


1



arc am

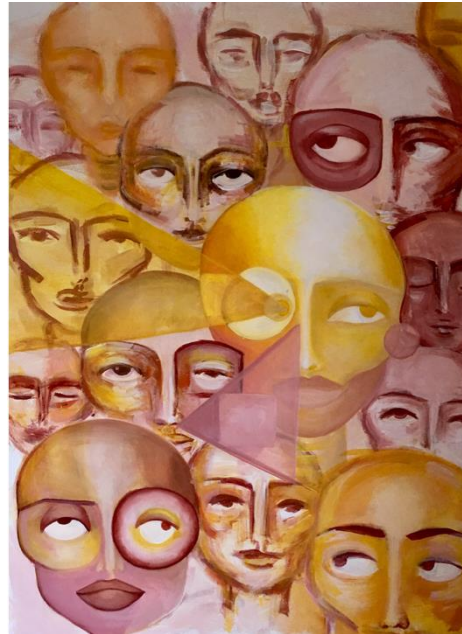
Pocket
guide to
surveillance
in the urban
habitat



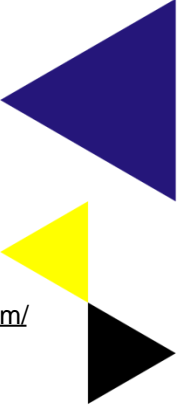
arc cam

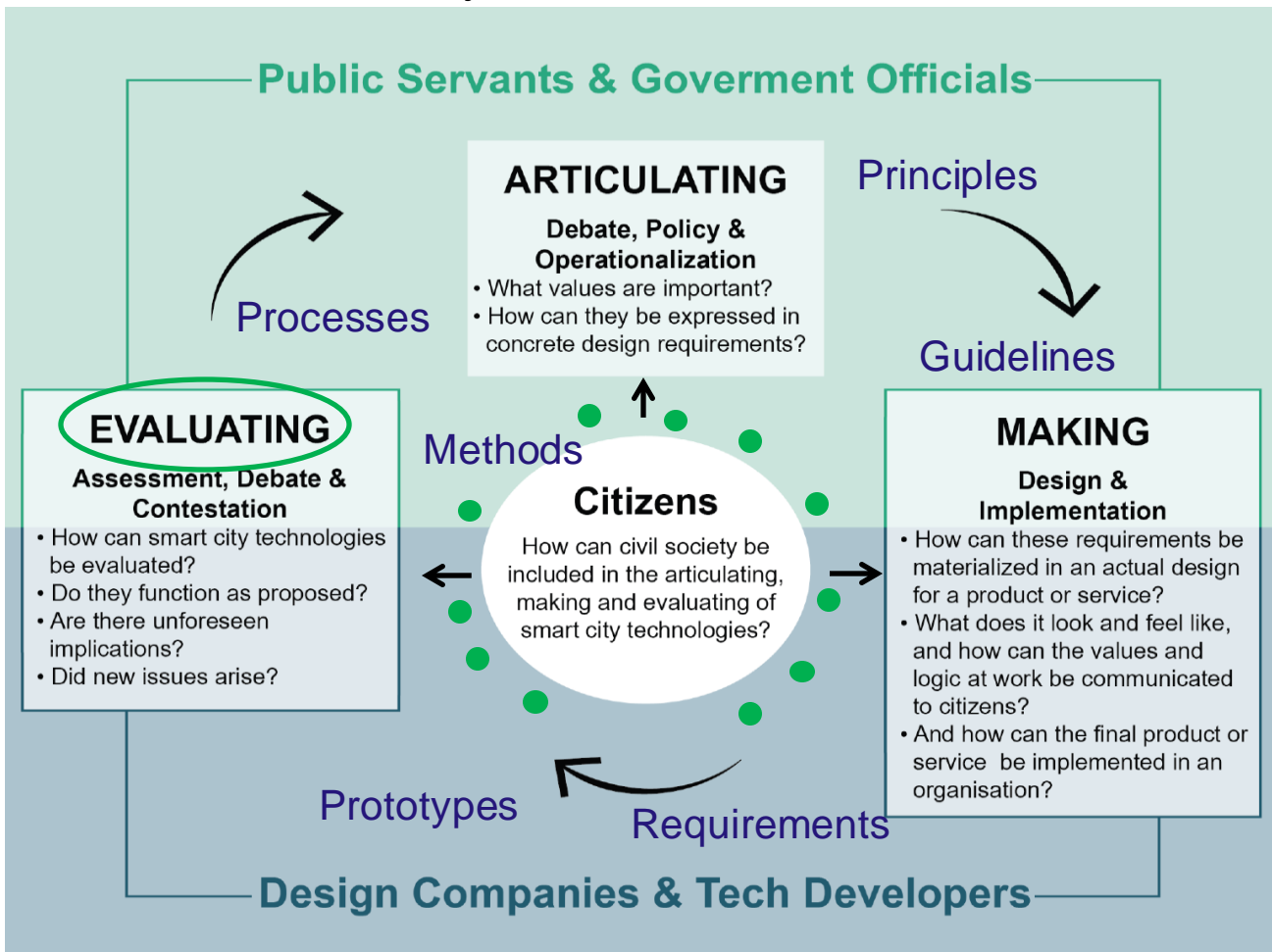
In the human habitat, a new species can be observed: surveillance cameras. This pocket guide classifies and provides background information on the types of cameras in public space. It allows users to quickly look up which camera they are dealing with. Similar to a field guide to birds, this guide uses pictograms to provide information about camera behaviour (such as what kind of data is gathered, or if the camera can move) and the habitats of the different species (where they most often occur).

What could an integrated, multi-stakeholder design process look like for the ethical implementation of smart city technologies, in the context of computer vision?



<https://www.noemimanser.com/>

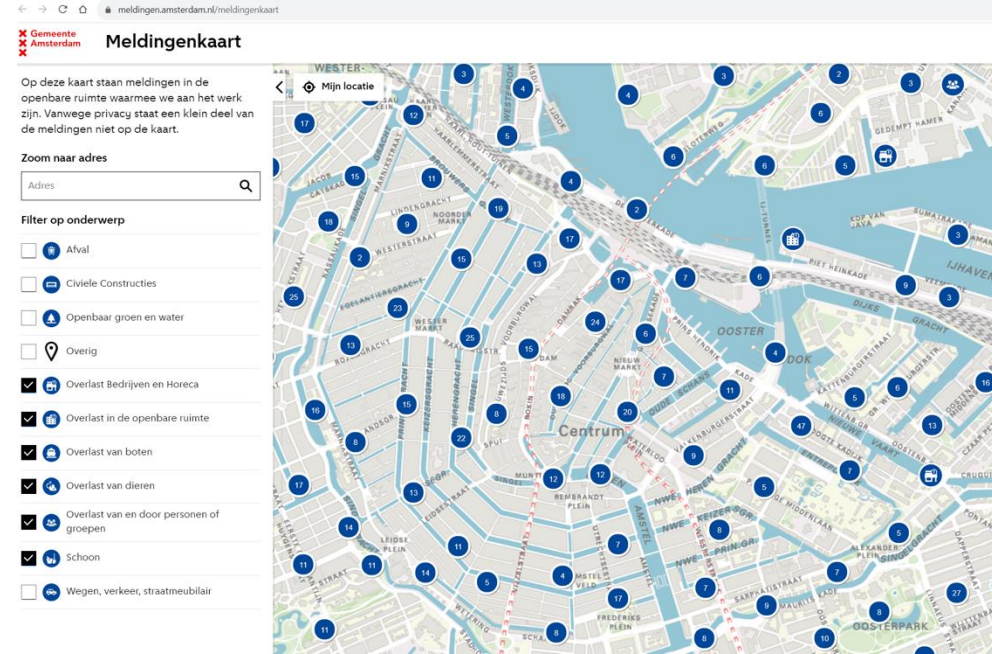




- Workshops



The parking scan car, the city dweller and the fourth floor



The nuisance reporting website, the civil enforcement officer and the drying tent

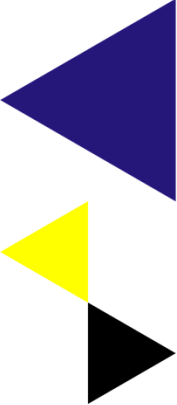
1. The leeway of civil servants decreases with the advance of urban technologies leaving their decisions increasingly black- and-white.
2. The loss of self-solving capabilities in the community with the growing responsibility the municipality takes for arriving at solving problems.
3. The necessity to negotiate or debate is under pressure, both among citizens and between citizens and civil servants.



- Policy documents

“Human scale approaches should be the measure of how we handle data and technology, it should be reflected in our frameworks, policies and in our own service delivery.” (Agenda Digital City)

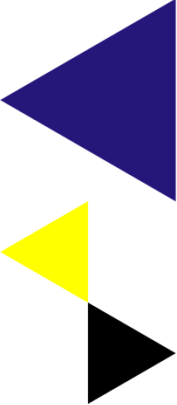
“Numerous informal organizations contribute substantially contribute to combating people's problems and provide social cohesion. We want to support and connect these informal organizations and networks support and connect them, without formalising and institutionalising.” (Coalition Agreement, 2022)



- Surveys & conversations

“How can we maintain a human face and stimulate human contact in our ‘neighborhood approach’, while simultaneously implementing a more data-driven approach?” (civil servant)

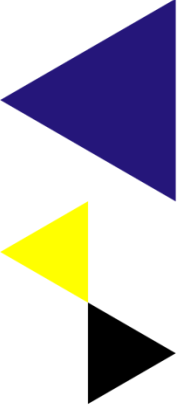
“Can you help us collect vignettes to use to train our civil servants with when it comes their discretionary space?”. (civil servant)



- Surveys & conversations

“All those anonymous ‘the government will take care of you-things’ will result in the community not being able to solve challenges itself.” (city dweller)

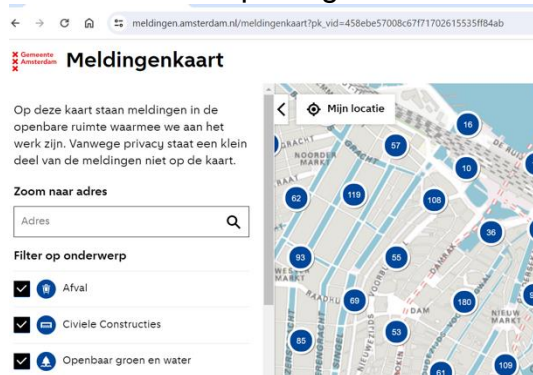
“You can ‘talk’ with regular officers, but civil enforcement officers are much more black-and-white. It gets worse when you automize services.” (city dweller)



Parking scan car



Nuisance reporting website



Decrease of

- human presence
- human communication
- human interaction



Under pressure

- professional leeway
- self-solving capacities
- ability to negotiate

**= Unwanted
→ Repair**



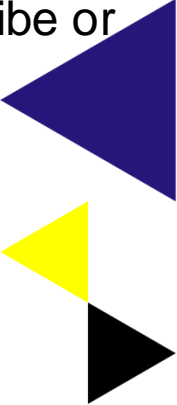
Policies aiming for

- tailor-made decisions
- local ownership & social care
- participatory democracy

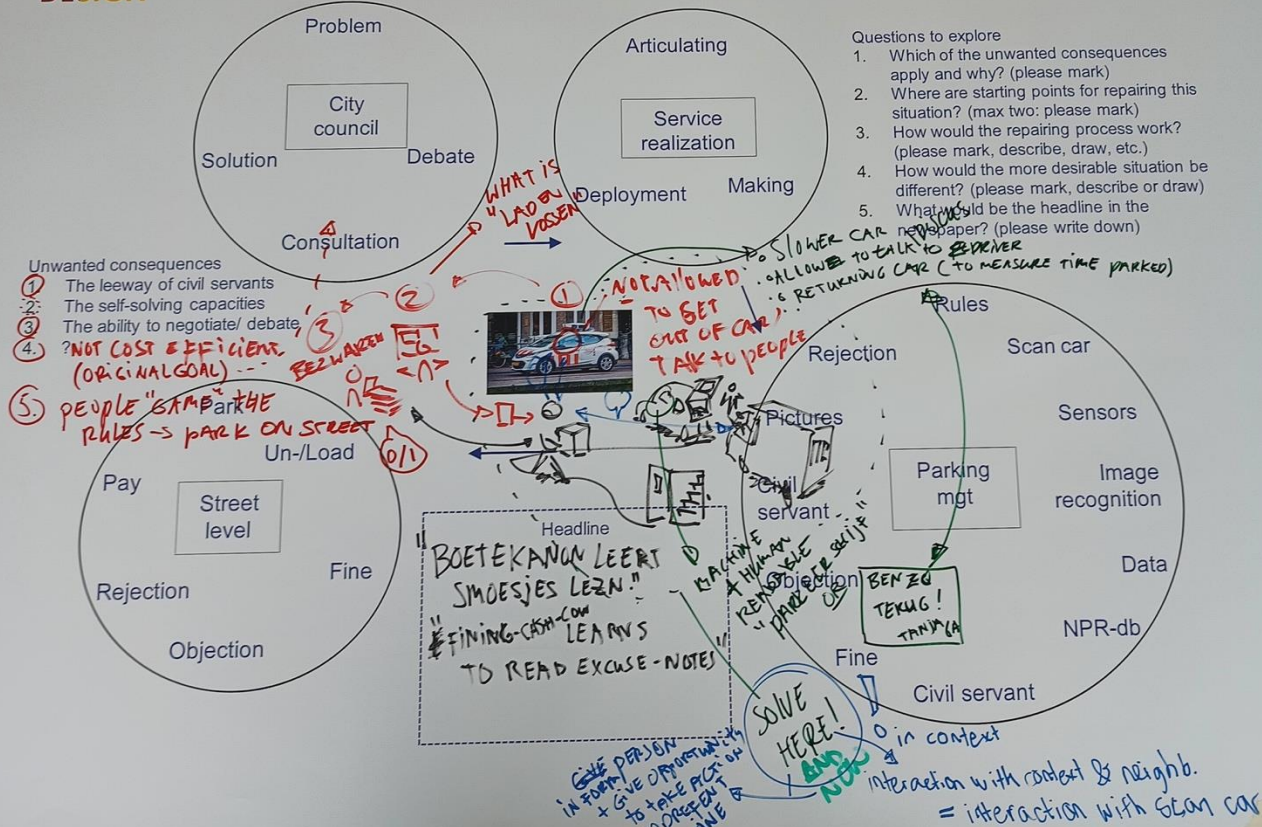
Last workshop in the series

Questions to explore

1. Which of the unwanted consequences apply and why? (please mark)
2. Where are starting points for repairing this situation? (max two: please mark)
3. How would the repairing process work? (please mark, describe, draw, etc.)
4. How would the more desirable situation be different? (please mark, describe or draw)
5. What would be the headline in the newspaper? (please write down)

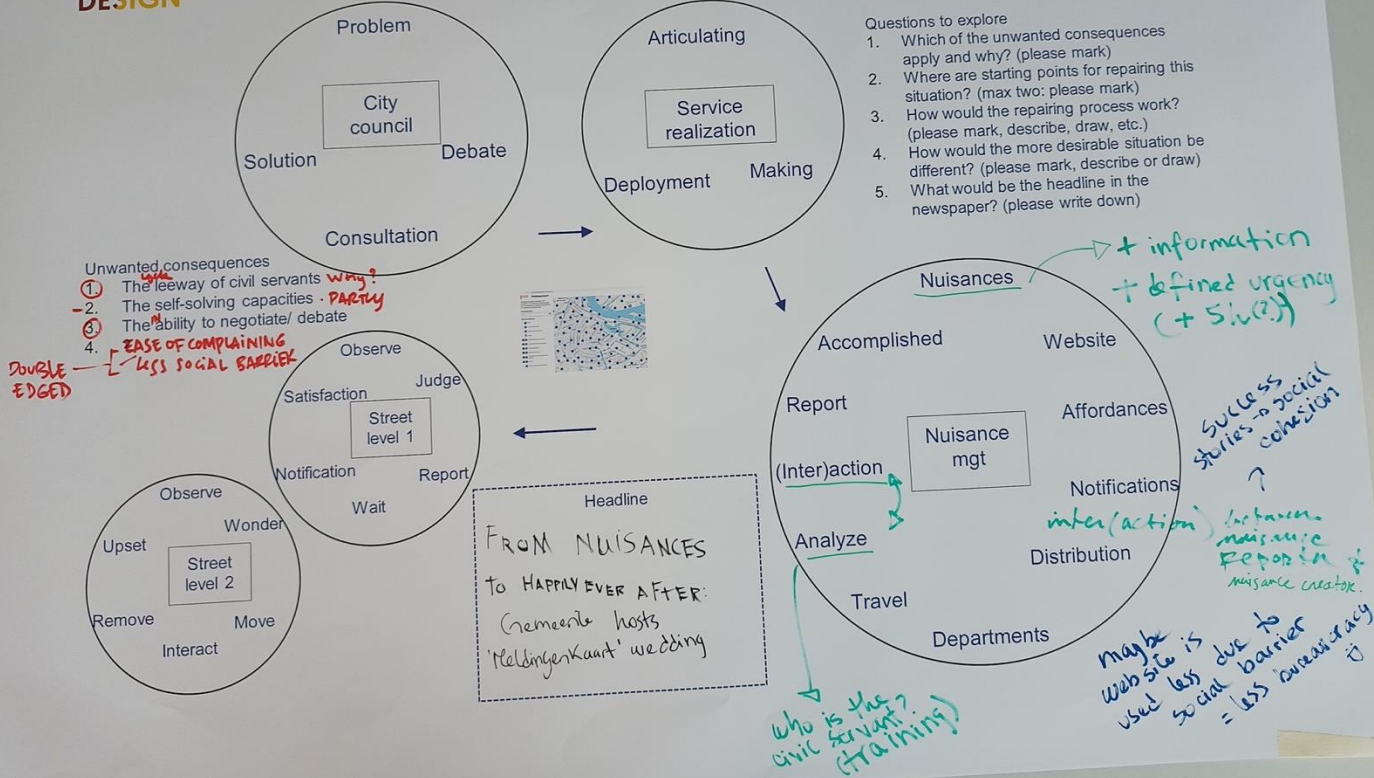
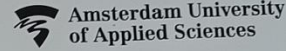


Evaluating parking scan car service



CIVIC INTERACTION DESIGN

Evaluating reporting website



- Questions to explore
1. Which of the unwanted consequences apply and why? (please mark)
 2. Where are starting points for repairing this situation? (max two; please mark)
 3. How would the repairing process work? (please mark, describe, draw, etc.)
 4. How would the more desirable situation be different? (please mark, describe or draw)
 5. What would be the headline in the newspaper? (please write down)

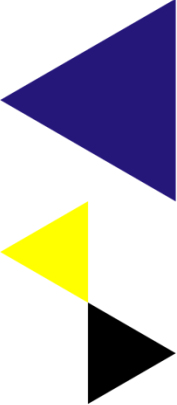
Future newspaper headlines

Nuisance reporting website

1. “Municipality hosts first reporting-website-wedding”
2. “The enforcement officers get help of ‘local guardians of responsibility’”

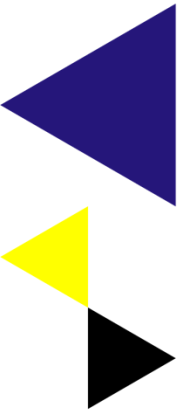
Parking scan car

1. “The fine-machine cash cow learns to read excuse notes”
2. “Real time parking fine notification and response options”
3. “Free 5 minutes (un)loading minutes in parking apps”



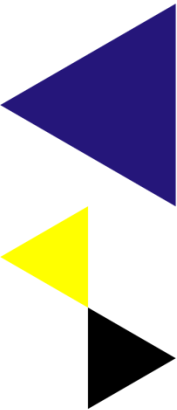
“Municipality hosts first reporting-website-wedding”

1. Reporter and malefactor
2. Enforcement officer did not go
3. Notification to locals
4. Canceling of complaint
5. Stop to chain reaction
6. Complaint needs level of urgency
7. Training civil servants



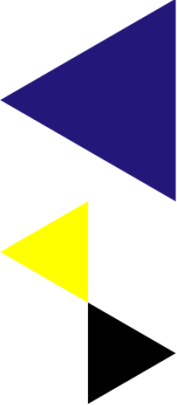
“The enforcement officers get help of ‘local guardians of responsibility’”

1. Variation in complaints across neighborhoods
2. Low income: high/ low income: low
3. Focus enforcement officer on low-income neighborhoods
4. Local guardians assess urgency
5. Low urgencies are tackled by them
6. Increase presence officer where it is needed
7. Challenge: The level of local responsibility



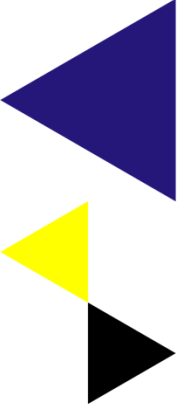
“The fine-machine cash cow learns to read excuse notes”””

1. Human written notes
2. “I will be right back”
3. Return in 10 minutes
4. Car still present is fine
5. Prevents case load of civil servant behind the computer
6. Approved objections could go down



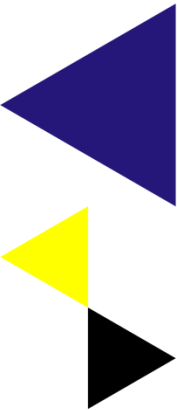
“Real time parking fine notification and response options”

1. Fine notification in real time
2. Debating the preliminary decision
3. Stop the chain reaction
4. Rentals cars still a problem (no phone number)
5. Retrain the system based on these interactions



“Free 5 minutes (un)loading minutes in parking apps”

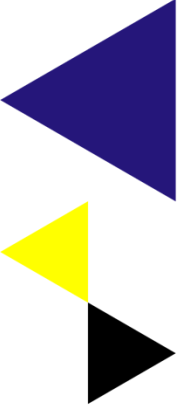
1. Five minutes after scan and no-paid match
2. Claim your 5 minutes unloading time in parking app
3. If it takes longer paid parking will start
4. Notification of fine through the app
5. Call number to explain
6. Improve fair use of parking spots
7. Prevent fine avalanches



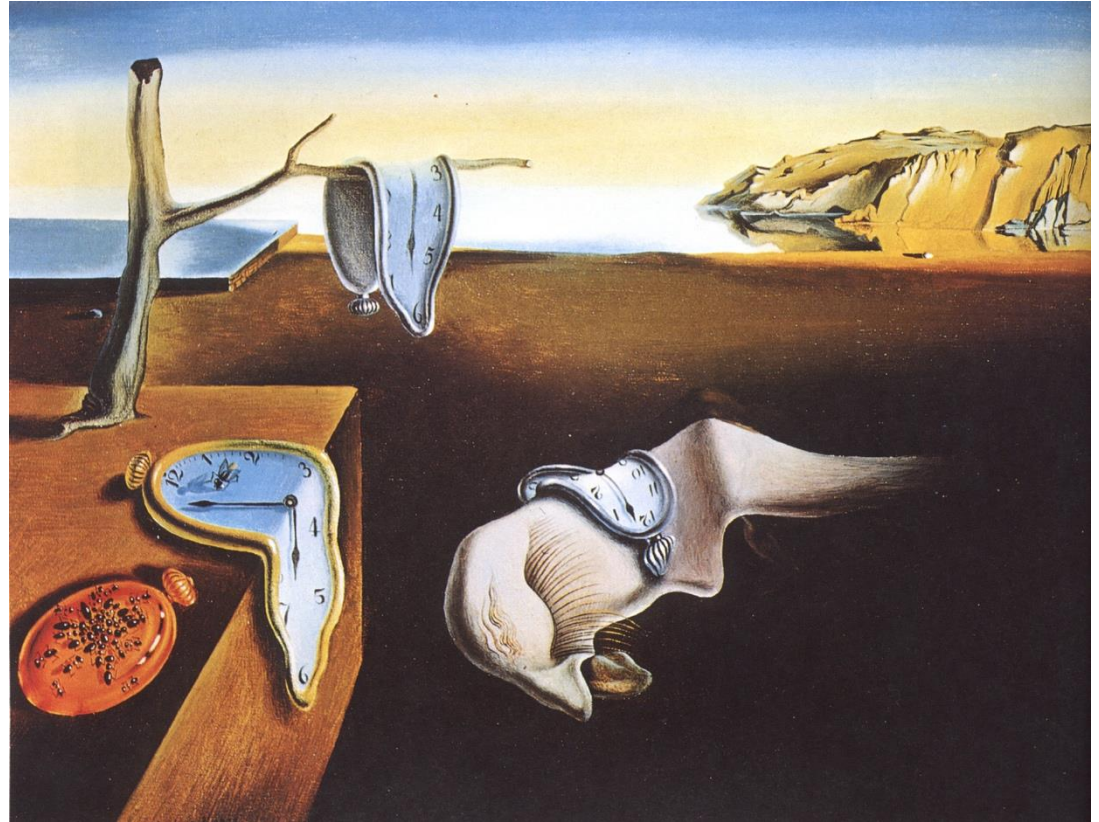
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3. The necessity to negotiate or debate is under pressure, both among citizens and between citizens and civil servants.



1. Hard to start repair processes existing tech
2. Efficiency/ effectiveness executive branch
3. Easier to change approach in new use cases
4. Co-design process scan bicycle
5. Ongoing effort during various versions of life cycle
6. Restoring / increasing trust in local government



If you have any
comments or questions,
please let yourself be
heard!



Please contact me if you ...

- ... have any tips for literature, methods, tools, concepts, etc.
- ... want to collaborate on these topics.
- ... have any questions or suggestions on this method.
- ... would like to receive the presentation and updates.

Thank you!
m.de.kreek@hva.nl