Citizen perceptions and feelings as digital data producers – insights from Amsterdam, The Netherlands


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Outline

1. Research project & setting
2. Insights from report and public debate
3. Analytical focus of Programmable City paper
4. Citizen perceptions and feelings
5. ‘Creating smart cities:’ 6 broad ways forward - insights from this project
1. Research project and setting
Citizen perspectives on digital (spatial) data infrastructure

KIP: Maps4Society project
• Privacy concerns ~ citizen perspective
• “Smart city” ~ spatial data infrastructure(s)
• Towards a social contract: citizen-municipality

In the longer term...
• How should the city manage and use data in future?
• What kind of governance of digital data creates an equal playing field for the elderly, the young, the vulnerable or marginalised?
• Also for non-users of smart technologies, non-citizens, non-Dutch speakers?
Spatial data?

- Governing the city involves answering spatial questions: where are people living/moving, how is the city changing over time, how to identify and manage crowds/security/health risks?

- **Types of data**
  
  - Volunteered: Municipal records
    - Social media/crowdsourcing/feedback
  
  - Observed: Street: cctv, wifi capture
    - Transport systems: OV chipkaart data
    - Privately generated: GPS from phones/cars/transport
  
  - Derived: Merging and linking to model, profile, predict, influence
Amsterdam as global city/model for datafication

• Researchers
• City:
Historically and to date: globally oriented city (trade, commerce, culture, tourism)

inclusion/exclusion dynamics

“Smart Amsterdam” & NL as “poster child for civic action”
A remark about the general sentiment of the research

“A very general remark about this is that there is a tendency to use, or to frame technology as something that could improve participatory governance, that is, and it can often be seen as an enabler of participatory governance. But if you look at the practice, so the actual concrete extent to which one is able to dot at, to fulfill that promise, I would say maybe...” (interviewee, regional planning agency)
Understanding how people view urban datafication

- 20 expert interviews: research/ commercial/ public sector/ activist
- Observation & participation in events and discussions – smart city Amsterdam, Geonovum, M4S, Predicting cities workshop, and other
- Scenario-building exercise

- Focus groups
  
  Profiling
  Non-users of smart technologies
  Sex workers
  Non-EU immigrants
  EU immigrants
  Freelancers
  Tech developers
  High-school children
2. Insights from report and public debate
Scenarios

- High traceability, social engineering
- Data utopia/dystopia
- Rampant profiling
- Low traceability, data market/profiling/discrimination
- ‘Anonydam’
- Anonymity at a price
- Low traceability, social cohesion
- Anonymity
- City (public-sector) control over data
- Private-sector control over data
Focusing on tensions

• **Anxiety** about datafication is not being balanced by inclusion and participation (from focus groups & interviews)

• Data infrastructures are needed that open the city to people, not just people to the city – **in/visibility of the infrastructure** to people (from focus groups & interviews)

• It is good having these kind of discussions. It was a very **emotional discussion** (several audience members after debate).

• “Take into account the emotional aspects and lived experience of privacy” (recommendation from initial report)
3. Analytical focus of Programmable City paper
Aims & framework

• Unpack the “feeling of insecurity” and “ambivalence” – about what? How so?
• How do people “see”/perceive of the infrastructure?

• Inspired by Ribes and Finholt’s (2009) framework of tensions expressed by participants involved in the development of e-infrastructure
4. Citizen perceptions and feelings
Tensions experienced by citizens as data producers in the urban digital infrastructure

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Perceptions/Feelings

- Increasing digitalization of urban life across domains of living: home, work, travel, socializing, interacting with authorities
- “invisible accountabilities:” infrastructure development lacking oversight, points of contact to ask, not knowing how/where/by whom data is used
Conveniences vs. risks of being tracked

“... it really aids us in daily living, like stuff like Google Now for instance. It says like ‘leave now for this and that meeting,’” I find that aggregating these data sources [your agenda, if there are traffic jams on your route, weather, etc.] I find that this is really smart, it’s really helpful to have that stuff... and I am willing to give on privacy for these use-cases. (technology developers focus group)
More on (and beyond?) convenience...

• Excitement and imagination:

“... relationship we have with privacy... let’s hope it doesn’t get in the way to do really cool things... to make some sort of combination [from many different data sources] and give the best imaginable picture of what’s happening.” (Expert interview, Amsterdam Metropolitan Solutions)
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Becoming visible to an invisible watcher

• Public vs. private collectors >> government more trusted, especially by immigrants
• Invisibility of data flows and integration between public/private
• Not knowing who is watching the camera recordings
• Chicken & egg: to express what we are comfortable in sharing we need to know more about the socio-technical assemblages behind the camera, mobile device...
Self-management vs. contextual forces

- At structural level digital – non-digital life choices are increasingly limited
- At individual level – what/when/where/how/when to share data digitally – lacking specifications of rights, obligations, rules that pattern digital urban life
- Individual background: age, profession, education, internet access & tech know-how
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Digital citizenry vs. the human citizen

• Dutch census boycott in 1970 <<< Digital Data boycott today?
• Importance and diversity of individual (“digital”) background/biographies
• Increasing sense of personal invisibility in digital systems that comes with emission of more types of data:

  “I think we are virtually invisible, at least on a digital level.” (tech developer focus group)

  “For me the group thing is more problematic actually [being subsumed under one category based on xy data analysis]. ... for me it’s just, I want to be treated as an individual and not as part of a group.” (expert interview, Privacy & Law PhD candidate)
5. ‘Creating smart cities:’

insights and ideas from this project for 6 broad ways forward*

* Kitchin, 2016
1. Goals:
• Discussion on limits of datafication in terms of what it can do about empowerment, participation, poverty reduction, climate change preparedness, safety and security, etc.
• Keeping the “cool” factor without losing track of the larger aims

2. Cities:
Retain spatial choices: non-wired city spaces?
Consider creation of new marginalized groups
Amsterdam specific:
• Support/expand Onderzoek, Informatie en Statistiek (OIS)
• Connect OIS to Commission for Personal Data (CPA) and ombudsman

3. Epistemology:
• The limits of quantifying all quality
• Combination of numbers with narrative (NextDrop in Karnataka or Waterschrijver in NL)
• Engage with political debates & discourses (profiling, inclusion/exclusion, marginalization...
4. Management/Governance

- Address outdated rules and norms
- Permissions will need to cover both public and privately-managed space
- Think beyond compliance, e.g. implications of collecting data on groups or using de-identified data
- Municipality to exercise the power not to become a data broker: exerting influence via procurement, education and stimulating the regional economy
- Managing partnerships so that the city gets full access to data
- Keeping data within contextual boundaries (data silos for sensitive groups)
- Government’s own inventories and access to these

5. Ethics and security concerns

- (Re-)consider the “bigger/more is better” arguments
- Back-up systems & emergency response plans (for cyber attacks)
6. Stakeholder and working relationships

- Take into account the emotional aspects and lived experience of privacy – contextual data use and the ‘play of everyday practice’
- Keeping channels of communication between ‘tech optimists’ and ‘tech pessimists’ open
- Connect the datafication debate into broader public political debates
- Researchers: what role can be played by different public and private actors, e.g. powers at municipal level, hacker and artist engagement
Retaining choices ...

Example: 2009 smart meter decision in Netherlands.
Thank you

References:

