How we know where we are in the smart city:

Excerpts from conversations in Amsterdam (Netherlands)

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Session N7: “Smart for whom? An exploration of the social and environmental aspects of smart urbanism”
(Human Dimension)
Maps4Society Project (M4S, 2015/16)

“Promises and Perils of Smart Cities” (Kitchin, 2015) (surveillance, safety, convenience, efficiency, participation, ...)

“Algorythmic governance” (Coletta, C. & R. Kitchin, 2016)

“Group privacy” (Taylor et al, 2017) and dynamic (re-)groupings and classifications of people-space relations through data

“How do people perceive, experience, discuss these matters from their perspective as smart city inhabitants (Amsterdam)?

“Virtuality of territorial borders” (Hildebrandt, 2017)

...
Methodological notes

• Amsterdam as global city/model for datafication

• 20 expert interviews: research/ commercial/ public sector/ activist

• Observation & participation in events and discussions – smart city
  Amsterdam, Geonovum, M4S

• Scenario-building exercise

• Focus groups
  - Profiling
  - Sex workers
  - EU immigrants
  - Tech developers
  - Non-users of smart technologies
  - Non-EU immigrants
  - Freelancers
  - High-school children

2015/16
“The virtual:” language and feelings

“If we get ‘the virtual’ – the problem for which jurisdictional borders were the solution – wrong, we will not be able to develop an appropriate actualization.” (Hildebrandt, 2017, p. 25)

a. How to speak about what you care about if there are no words for it (yet)

b. Feeling of extreme visibility

“I feel extremely visible: check ins on Facebook, everything you post on Twitter, Google, that knows through your phone every step you take pretty much, everything you post using gmail. I am pretty sure everything is scanned and collected and aggregated” (Technology developers of energy provider)

c. Sense of powerlessness

• “It’s getting more and more difficult to be anonymous in the city...because of the cameras, because if you park your car somewhere in the city you have to put your license plate, with the public transport cards, and so on. It’s very difficult to be anonymous in the city]…before you had ways out” (Freelance workers)
Interpretive framework

Concepts from Mireille Hildebrandt’s (2017) “The Virtuality of Territorial Borders”

1. The geometrical perspective
2. Multi-focal realities
3. Shifting borders of the sovereign subject
4. In search for borders of the virtual world
1. Re-configuring the geometric perspective: from “territory” to “networked spatialities”
2. Multi-focal realities: spaces, meanings, and effects

Digital traces of physical space

Private and public digitophysical spaces

**KINDS OF SPACES IDENTIFIED BY PARTICIPANTS**

**Personal (Private)**
- Physical/Meatspace (e.g. ‘the body’, ‘my location’, ‘home’, ‘real identity’)
- Digital (e.g. ‘emails, sms, phone/skype conversations’)
- Digitophysical (e.g. ‘smart-phones’, ‘smart watch’, ‘smart meter’)

**Public**
- Physical (e.g. public (e.g. square, bus) and private (e.g. shop) space outside the home
- Digital (e.g. Facebook, Blogs, Advertisement websites, etc.)
- Digitophysical (e.g. CCTV, facial recognition devises, wifi-beacons)

**Spatial references made by participants**

- **Movement:**
  - international vs. national
  - via public transportation in country (NS)
  - on street

- **Location:**
  - residence (former and current)
  - present (e.g. in city or on holiday - away from home)

- **Spatial reference "omitted" by whom**
  - self
  - others (about oneself)

- **Spatial reference of what/whom**
  - self
  - personal belongings
  - others

- **Spatial reference known by whom (besides family, friends, neighbors)**
  - by family, friends, neighbors
  - by government
  - by quasi-governmental institutions (hospitals, doctors)
  - by private digital data/ communication enterprise
  - by private enterprises (banks, insurances)
  - by other people digitally
  - by other people physically - robbery in Mexico

- **Spatial reference emitted by what means (other than face-to-face personal conversations)**
  - formal registration (including analogue)
  - through e-mail account registration
  - non-smart mobile phone (towers)
  - smart mobile devices
  - postings on social media
  - transportation provider (via pay cards)
2. Multi-focal realities: spaces, meanings, and effects

a. Different emphases in meanings of privacy

- Not misusing data as a matter of personal dignity and integrity
- My data can be used by government, but not by private industry
- Any message sent by me and intended only for the recipient
- Health information

b. Uneven effects of hypervisibility

- “It’s difficult for members of minorities, because they are always suspicious. It’s difficult for them to always be with fear of being suspicious” (non-EU immigrants)

- “they can also financially ruin you and out you at your landlord which means you are homeless and it’s really difficult to find a home when you’re earning from sex-work if not impossible; and even out you to your non sex-work employers, which you know... makes you more vulnerable” (Sex-workers)
3. Shifting borders of the sovereign subject

“[T]he human subject does not precede society and its technological backbone. Rather, both are constituted and shaped by the technological infrastructure that reigns...humans are in persistent process of border-making and these borders depend on the habits we develop, question and change.

(Hildebrandt, 2017, p.18)
3. Shifting borders of the sovereign subject

a. Invisible boundaries about the self drawn elsewhere, out-of-sight

• Especially web of relations and third party flows of own data

b. (Attempts at) own boundary making

• Engaging digitally as little as possible
• But need to engage: “I think it’s hard to define because I guess privacy is everything that concerns me - being honest the best thing would be [to be] able to share whatever and only what I want to share..”
• Need to frequently consider and imagine future risks and multiple audiences and perceptions when engaging with online world.
• Giving up on personal privacy: “To be honest I am becoming less careful with my online behaviors because at the moment I work from the assumption that in 10 years my law enforcement will know what I am doing anyway” (Sex workers)
4. In search for borders of the virtual world

“Cyberspace is always experienced by embodied and situated individuals. This entails that online interactions have consequences in the embodied world, meaning they can affect reputation, employability, creditworthiness, energy usages, health risk assessment etc. ”

(Hildebrandt, 2017, p. 21)
4. In search for borders of the virtual world

a. Expressed in the frequent discussion and questioning: safety vs. surveillance

• Weighing of pro/con
• Weighing of individual vs. group(s) and society
• Context specificity: descriptions of concrete situations in reference to safety vs. surveillance

b. Consequences in the embodied world

• “You get a nice big map of Amsterdam saying 'you have a huge fire risk here' what does it do for insurance, house prices and the whole area when you live there” (Technology developers of energy provider)

• Beyond the city’s jurisdiction ... “Maybe you want to go to Mexico for holidays and you tell your friends and family about it and some friends post something about me going to Mexico, and then everybody knows. But Mexico is terrible at the moment and everyone knows you are going to Mexico from Europe. It is terrible but there are many kidnappings. The situation in Mexico is different. We come from a different country and we need to be careful” (non-EU immigrants)
Shifting Borders of the sovereign subject / Borders of the virtual world

“It all comes closer. Before you sat in front of the computer and now you have a computer on your hand and on your wrist and it gets closer and closer to the human body. I think body functions are the next big data things”
(Technology developers of energy provider)

“We clearly need to rethink and to remake jurisdiction…The notion of ‘we’ seems pivotal here. ‘We’ is first a multitude, not a grand legal subject that can be taken for granted as a given people, or a given nation…multitude should be the starting point.”
(Hildebrandt, 2017, p.25)
Implications

Words

- Need for a new language, a new vocabulary, that captures shifting, new and lacking boundaries (we are trying to shoehorn in old concepts to a new digital city) – “poetics of digital space” (Arias-Maldonado, M., 2016)

- As a means for people - citizens, researchers and policy makers included – to express themselves confidently.
Implications

People and spaces

- People wish to see spaces created in data infrastructures that serve people as citizens and that open up the city to its people, rather than just opening up the people to the city.

- People wish to see preserved personal space, whether that is the home or the self.
Implications

Data infrastructures

- Design and development of data infrastructures through reflection based on principles of **contextual integrity** (H. Nissenbaum, 2009), for example through **purpose limitation** (Herrmann et al, 2016)

- Design and development of data infrastructures through consideration and mitigation of **differential effects** - both positive and negative - on people – emergence of groups from data (Taylor et al, 2017)

- Infrastructures that offer possibilities to choose non-participation and be allowed participation (“Rights in and to the digital city”) and allow for people to understand the options and conditions.
The report of this research can be found here:

Accessible at: http://ssrn.com/abstract=2792565

Or google [“customers, users or citizens”]

Citation:

THANK YOU.

References


Coletta, C. and R. Kitchin (2016). Algorhythmic governance: Regulating the ‘heartbeat’ of a city using the Internet of Things. Paper has been submitted to the Algorithms in Culture workshop to be held in University of California Berkeley, 1-2 December 2016. Published as an open access pre-print on SocArXiv: https://osf.io/bp7c4/.


