





SMARTNESS AND SUSTAINABILITY

“Asking what a smart city *is* might be the wrong question; the pertinent question is what a smart city – or rather the smart city framing – *does*.”

“When actors and institutions invoke smartness as the key agenda, what does this mean for *the way they envision and pursue urban sustainability*?”

(Håvard Haarstad, “Constructing the Sustainable City”, 2016, emphasis altered.)



CULTURALLY SUSTAINABLE URBANISM?

Finland's action plan for sustainable urban development

Low-carbon cities

- Low-carbon approach
- Circular economy, efficient use of resources
- Sustainable food system, nutrient cycles, locally produced food
- Wood construction
- Innovative and sustainable public procurement

Smart cities

- Transport and sustainable mobility
- Smart infrastructure and smart energy
- Smart services and service chains

Socially inclusive cities

- Combating segregation
- Narrowing inequality

Healthy cities

- Healthy indoor and outdoor spaces
- Green spaces and recreation, ecosystem services, nature-based solutions
- Accessibility





CULTURALLY SUSTAINABLE URBANISM?



Does the suggested action plan lead to cities that “are *participatory*, promote *civic engagement*, engender a *sense of belonging and ownership* among *all their inhabitants*, [enhancing] *social and intergenerational interactions, cultural expressions* and *political participation*”?

(*New Urban Agenda* by United Nations, 2016, emphasis added.)

How? Why? On what basis?



TECHNOLOGIES AND WORLDVIEWS

“Using technologies means that we are in our surroundings in **specific ways**. [...] Technologies co-shape the appearance of the world; we do not just see a world, the world appears to us in **certain ways**: technologies **structure** and **organize** the world.”

“Regarding technologies as extending mediators that offer a transparent, albeit augmented, link between the world and us implies that we use technologies to reach **already defined goals**. However, [...] through making us perceive our surroundings in specific ways, technologies co-shape our ability to even catch a glimpse of such goals, and therefore also **set them as goals**.”

(Asle Kiran & Peter-Paul Verbeek, “Trusting Our Selves to Technology”, 2010, emphasis added.)



TECHNOLOGIES AND EVERYDAY EXPERIENCE

Implementing various technologies as *reconciling different worldviews* and *experiential perspectives*

Sustainability from the experiential point of view: *the sustainable development of urban experience?*

Criteria for assessing and evaluating *the sustainability of embedding novel technologies in everyday urban life?*



EXPERIENTIAL RESILIENCE

Resilience:

- ***Adaptive capacity*** or ***capability to deal with change***

Resilience-based understanding of sustainability:

- From a static equilibrium state to ***adaptability*** and ***preparing for change***

Experiential resilience:

- A balance between ***dynamism*** and ***stability*** with a focus on the ***temporal quality of urban environments*** and the ***experiential quality of changes***

“Smartness Experienced”

The sustainability of embedding novel technologies in everyday urban life

First of all, I have to admit that I’m not a smart city expert – I’m not even a so-called smart city enthusiast. However, I do recognize that the pursuit of smartness and smart design solutions is a very topical issue – one could even say that “smartness” as a slogan crystallizes pretty much *the spirit of the present time*. This being said, I’m going to approach the smartness theme rather *philosophically*, from a conceptual point of view. Above all, I’m going to focus on the notion of *sustainability*, and the *presumed connections* between sustainability and smartness.

In order to do this, I’m going to follow the path presented by Håvard Haarstad in his article “Constructing the Sustainable City”. Accordingly, I’m not going to ask for any particular *definition* of smartness or smart city, but rather I want to examine the *consequences* or *implications* of the smart city framing – that is, the smart city discourse, broadly understood. And especially, again following Haarstad, I want to examine what the smart city framing means from the viewpoint of sustainability – or *everyday urban sustainability* to be more exact.

In this presentation, I rather want to raise questions than give ready-made answers. For example, I want to ask, *what kind* could the most suitable and adequate notion of “sustainability” be for the smart city discourse? In other words: *how* should one understand the notion of “sustainability” in the smart city context – that is, if one wants to avoid the problems inherent in the overly technical and technologically-oriented definitions of the notion? To repeat: I have no ready-made all-encompassing solutions to the sustainability problem up my sleeve. Instead, I want to illustrate some *commonly bypassed pitfalls*, and to outline some *potential guidelines* for further development.

I am claiming that, especially in Finland, certain *technologically-oriented view* seems to have a rather dominant or even hegemonic status regarding the sustainability discourse. Additionally, or as the by-product of the status quo, there seem to be remarkable *shortcomings* in discussing and debating on the *cultural side* of sustainability. To illustrate this issue, I have picked here an example of Finnish sustainability discourse, and of the lack of cultural debate therein. In July 2017, the Finnish Ministry of Environment published Finland’s new action plan for sustainable urban development. The official press release summarizes the issue like this: “Urbanization is a megatrend shaping the world. It poses many challenges to the wellbeing of both the environment and people. To tackle these challenges, the Ministry of the Environment of Finland is launching a national action plan for sustainable urban development. The priorities are, in particular, low-carbon approach, efficient use of resources, smart services, health and combating inequality.”

One can either agree or disagree about the Ministry's conception of smart cities and what is relevant from the smart city perspective; I mean, I would say that possibly *all* of the presented thirteen priority themes could or should be under the title smart cities – not merely the three. But once again, this is not the point here. What is more important is the priority that is given to technology in general, and even to certain particular technological innovations.

This illustrates the so-called Finnish mentality, according to which if the “hard” sustainability (that is, ecology, economy, and empirically verifiable social issues) is put in order, the “soft” sustainability (that is, culture) will somehow supposedly follow. If slightly aggravating, this means that individual people will supposedly act in a sustainable manner, and the socio-cultural structures of the community will become more sustainable, just if the technical and economic framing falls within the required standards. Mentioning segregation and inequality just *isn't enough*, especially when comparing to the rather detailed list of various technological issues highlighted in the action plan. And, to be sure, there is pretty much more to cultural sustainability than mere segregation and inequality.

One can, for instance, compare these priorities to those that are mentioned in United Nations' New Urban Agenda, released in October 2016. This declaration specifically envisages cities that – among other things – “are *participatory*, promote *civic engagement*, engender a sense of *belonging and ownership* among all their inhabitants”; cities that “enhance *social and intergenerational interactions*, *cultural expressions* and *political participation* [...] in peaceful and pluralistic societies”. Though it is clear that the context and the “target group” of the UN's agenda are rather different compared to those of the Finnish national programme, it is tempting to compare the formulations and the focuses of these two programmes.

What is especially interesting here is that *does* the implementation of Finland's technology-oriented action plan eventually lead to such cities that were described in the UN's declaration? According to Ministry's vision it certainly does, but due to the shortcomings in discussing cultural sustainability, the connection remains *disturbingly open and undefined*: thus we don't get a *proper* answer to the questions like “*why*” and “*how*” the technologies engender sense of belonging and ownership, or enhance social and intergenerational interactions, and “*on what basis*” does this de facto happen.

What is apparently missing is a view or vision that connects innovative technologies with *everyday practices* – as well as with the different worldviews *behind* the diverse practices. Thus we have to look into philosophy of technology to gain a better understanding of the supposed connection. Without discussing the essence of technology in great depth, it is important to note that technologies are never value-free. This doesn't merely mean that the usage of certain technologies benefits some people more than others, but that the demand for certain technologies, and the supposedly gained utility, are themselves based on *certain particular values* that stem from *certain particular worldviews*.

Quoting rather freely the argument provided by Asle Kiran and Peter-Paul Verbeek in their article “Trusting Our Selves to Technology”, this means that technologies and their overall significance are essentially embedded in different worldviews, and that technologies themselves make the world appear to us in *certain ways*: technologies themselves structure and organize the world in which we operate. Hence technologies never are just a “means to an end”, because the “end” in question is itself formed *as an “end”* by the aid of various technologies. This is why the related instrumental interpretation of technologies pretty much misses the point that introducing novel technologies not only helps us do new things with world, but eventually changes our experience of the world.

For example, reducing carbon emissions would not be a conceivable goal, if sufficient technological understanding about measuring the carbon levels didn't exist. Similarly, promoting the Internet of Things and the smart connectedness of various devices in urban environments has not been a potential objective of urban design for a very long time, simply because practically no one could image that such think could exist in the first place. On the other hand, the fact that nowadays *there are such goals* listed in various official documents results from a lengthy series of occurrences and also coincidences that have shaped the society, and its relationship to technology, into their current form. This series of occurrences and coincidences, in turn, is saturated with *human agency* and *influencing* – that is, with a countless number of *interests* and *values*.

On the basis of this, two things are clear about the cultural sustainability I've been talking about: first, it concerns very much questions *related to technologies*; second, it is quite massively *affected by technologies*. Moreover, the sometimes rather fierce strives over various technologies and their implementation are eventually cultural clashes of different worldviews. Hence the sustainability of implementing various technologies involves the sustainability of *reconciling different worldviews and experiential perspectives*. Now it seems that technology itself is in the *core* of cultural sustainability.

If one wants to examine the cultural sustainability in more detail, one has to ask: what is sustainability from the *experiential point of view*, and what does the sustainable development of *everyday urban experience* mean? Based on this, one can also ask how to *assess* and *evaluate* the sustainability of embedding novel technologies in everyday urban life – what are the *adequate criteria*? Now the most central question regarding the everyday experiential sustainability is this: how is it possible to avoid both “narrow-minded conservatism” that excludes changes altogether, and “speed blind futurism” that recklessly breaks the familiarity and the smoothness inherent in the average everyday experience? In other words: how is it possible to reconcile *old* and *new*, *familiar* and *strange*, *safe* and *exciting*?