

What Is a City that It Would Be 'Smart'?

By Usman Haque

Usman Haque is skeptical about smart cities. He asks if our longing gaze towards smart technology reflects a societal inferiority complex of sorts as our daily life has grown more intricate and complex. Recalling the technocratic dreams of urban planners in the sixties who pushed through our much maligned highway infrastructure, are smart cities just the latest technological fetish? Instead of concentrating the question on what will happen to cities in the future, he suggests that we focus on what is happening in cities right now, and let the technology follow.

Are 'smart cities' as inevitable as is often implied? It's worth considering what it is that we mean by a 'city' and why we would want, or not want, a city to be 'smart'.

Cities arise where humans and non-humans have clustered in dense geographical proximity, and one of the corresponding characteristics of such massing is that the populations differentiate themselves according to varying specialties and perspectives. Trade in general and the exchange of ideas in particular are foundations, because in dense populations one is more likely to encounter novel concepts and goods generated by others than in more sparsely populated rural areas. Heterogeneity is fundamental to cities and city-making.

The spatial, formal, and social accretion of cities – in different geographies and via different cultures – is manifested in completely different ways around the world. And, at least until recently, the sense of belonging (economically, politically, or culturally) to a city seemed essential. But in an age of extreme connectivity, when geographical specificity and proximity are no longer necessary for either trade or the exchange of ideas and the sense of 'belonging' transcends the boundaries of nation-states, what can justify the purposeful creation of new cities, not to mention so-called smart cities like Songdo and Masdar?¹ We see the co-mingling of the terms 'smart' and 'technology', where the implication is that these newly designed artifacts have some capacity to perform better than humans alone – even though that has often been the case with new technologies. I would argue our longing gaze towards smart technologies is an inferiority complex of sorts that has arisen as daily life appears to grow more intricate and complicated. Our schedules are too busy, our roads too clogged, and our interactions too fraught, but 'smart' devices, infrastructures, and homes promise to help us manage such complexity. Out of this, the smart city claims an even greater logical inevitability, because what use would all those smart devices, infrastructures, and homes be if they were unable to negotiate at an urban scale? Far from being inevitable, I would argue that part of the plea for smartness in cities is simply a general plea for the importance of cities themselves and an attempt to differentiate the new from the old – an ancient public relations strategy. A smart city is where city-makers want you, the networked citizen, to feel you 'belong'. Note that, in contrast to the notion of a person being part of the city – a city remade every day through the interactions of its citizens – these smart cities are somehow conceived apart from humans. They are simply to be inhabited and connected to as necessary, not created by citizens but their progenitors – developers, master planners, and investors.

Proclamations of urban smartness often include assurances of increased efficiency, predictability, and security. We hear of transportation infrastructure that will enable us to get to work on time, or interactive mechanisms to improve our shopping experience, or safeguards that deal with the potential dangers of urban life.² But these are things that make city-dwelling bearable, not an imperative, and one wonders why the creators of such cities believe we need to be thus coerced into living in them.

My concern is that the benefits of smart cities, as they are being sold to us, sound awfully similar to the benefits that urban planners decades ago were assuring us would accrue if only we had more highways and high-rises – the social, cultural, and environmental impact of which we are now bearing the brunt of. We have no idea

what the smart city equivalents might be of Robert Moses' tangled, congested and polluted freeways or the failures of the Pruitt Igoe housing complex.

I see three specific motivations behind the call for smart cities: The first is an idea that has gained a lot of currency as the internet has become increasingly important in our lives, individually and collectively: that anything networked must necessarily be good and desirable. From connecting up all manner of sensors, devices, and environments to the web, to the frequent geographical separation inherent in our interactions with each other, the blending of network, social, and physical space is now so engrained that there are those that believe that the conduct of everyday life in meatspace should look for inspiration in the social mechanisms that have evolved in cyberspace. A networked city, this argument tells us, enables better collaboration and coordination among its citizens, and any increase in participation is necessarily good. But, as Adam Greenfield has pointed out, "Networked sociality is different from urbanity. Online, we tend to surround ourselves with people just like ourselves, in a series of concentric circles organized by affinity and affective propinquity. But this isn't how urban socialization has worked, historically, and in my view it isn't what cities are for."³ We cannot merely export the relatively young and naive interaction protocols of the web to our urban lives, since the increased participation may simply be more segmented and therefore neither sustainable nor desirable in the physical world.

Second, in a world of increasing complexity where we are far more aware that our actions can have unforeseen consequences, people – especially city managers – desire control and understanding. They aim to reduce uncertainty. This is not surprising: part of the Enlightenment project has been an attempt to know the universe more deeply, fully, and rationally, essentially in order to control it. The often-explicit assumption that the universe is formed with knowable and definable parameters assures us that if we were only able to measure them all, we would be able to predict and respond with perfection accordingly. This is best exemplified in the 'Data>Information>Knowledge>Wisdom' paradigm, which is founded on the mistaken notion of data purity.⁴ In smart cities, where everything is measured, managed, and manipulated as data, city managers have a panopticon-like perspective on all aspects of city-making and city-living – what Aaron Straup Cope has referred to as a 'thinly veiled god fantasy'⁵ – and can therefore make apparently rational, logical, and impartial decisions. City-makers need such freedom from ethics and accountability in decision-making. They want to say: 'It's not me, it's the data!', but this attempt at predictability and homogeneity, which erases any capacity for agency or accountability, is counter to everything wonderful about cities, and we find tacit acknowledgment of this dichotomy in the way that projects that engineer serendipity often round out smart city marketing material.⁶ Moreover, in an attempt to measure and record everything at ever-finer resolution – building the kind of futile one-to-one map of the world that Borges described⁷ – we reinforce passivity and discourage constructive creativity, since everything becomes somehow equally (un)important.

The third motivation that I see behind the promotion of smartness in cities arises from increasing competition for investment and influence at the global scale, which requires at its most basic level an attempt to develop new urban marketing strategies. Initiatives

like PlanIT Valley⁸ and Masdar⁹ actually rely heavily on tax-breaks and the promise of jobs to attract future citizens and resident businesses within a country to relocate. But a come-hither to multinationals outside the country is far more appealing when it contains within it the promise of technocratic stability, modernity and progress. The smartness of cities appeals most to major corporations that are not themselves (though a large part of their worker populations may be) burdened by the restrictions placed on labor movement: they could be anywhere in the world, why not move to those places that assure them of a compliant workforce, predictable infrastructure, and the capacity to underline their own innovative technology-focused marketing strategy? The promotion of the inevitability of smartness in cities rather cynically preys on both individuals' fears for the future and organizational desires to rationalize their self-importance.

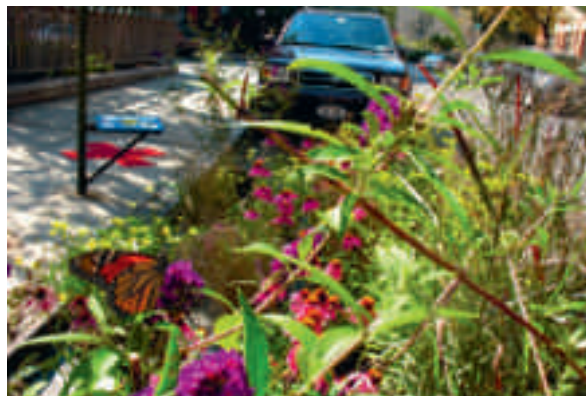
It's worth noting that much of the publicity for smarter cities and a smarter planet centers on what 'will' happen, rather than what 'might' or, more importantly, what 'is' happening; for all the advertising dollars spent on insisting on the inevitability of various futuristic scenarios, in my view the most interesting and creative urban technology developments are taking place in the hands of citizens, citizen-groups, and small agile businesses.

We've seen dozens of 'internet of things' Kickstarter campaigns in the last year for products such as light-bulbs that citizens themselves can reprogram to alert them to environmental conditions¹⁰; and we've seen citizens self-organizing around phenomena that concern them, like air quality (there are now dozens of Air Quality Egg citizen groups around the world)¹¹ or radiation (community groups in Japan united following the Fukushima disaster to measure and make sense of radiation data in a way that the government was incapable of).¹² What is common among these initiatives is that individuals, organizations, and hardware and software companies deal with actual urban reality, and the real innovation – the reinvention of what city-making can be – is found in the entrepreneurial and creative actions of citizens, not big businesses, real estate companies or the omniscience of city planning.¹³ Smart *citizens*, not smart cities, are key.

In some senses, it is expedient for these people and organizations to play the smart city game by adopting the language of techno-optimism, since their capacity for scale is tempered somewhat by industrial behemoths. But you can be sure that, for many of them, the real appeal of smart cities is how dumb these cities will actually be, opening themselves up to radical reimagining and re-appropriation of technological systems at an urban scale.¹⁴ Smartness arises in expanded human interactions and creativity, not in physical infrastructures and this is most important in the urban context. As Jane Jacobs said: "Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody."¹⁵

- 1 See 'The 10 Smartest Cities on the Planet' at: <http://www.fastcompany.com/pics/10-smartest-cities-planet-slideshow>
- 2 As an example see: IBM's 'Smarter Planet' initiative; or the Thales Group's smart city 'building blocks', published at: http://www.thalesgroup.com/Markets/Security/Newsletters/Critical_Infrastructure/2011/Issue_1/Newsletter_content/FEATURE_The_challenge_of_smart_cities/
- 3 In an email to the author, November 5, 2012.

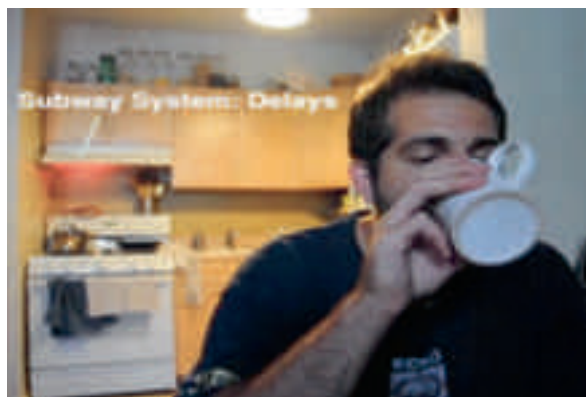
- 4 In 'OneTrees Frequently Asked Questions', published by Pond and the Sanchez Art Center, Natalie Jeremijenko describes how 'Smart Trees' along the Champs Elysées in Paris embedded with chips provide "a radically reductive representation of the trees as three data points which are then interpreted by a scientific expert. Curiously and entertainingly enough, this reliance on technology and scientific authority contributes to the mystification of otherwise self-evident information about the trees' growth". She further explains that OneTrees, in contrast, demonstrates how "information can be 'read' from material phenomena itself, not as a pre-interpreted digested data packet, not delivered by an expert, not wrapped in the incontestable authority of science."
- 5 In 'The New Aesthetic', blog post by Aaron Straup Cope, March 13, 2012, At: <http://www.aaronland.info/weblog/2012/03/13/godhelpus/>
- 6 As Greg Lindsay describes in 'Not-So-Smart Cities', in the *New York Times*, September 25, 2011: "To the folks at Living PlanIT and Pegasus, such programs are worth it because they let planners avoid the messiness of politics and human error. But that's precisely why they are likely to fail." At: <http://www.nytimes.com/2011/09/25/opinion/sunday/not-so-smart-cities.html>
- 7 'Jorge Luis Borges, 'On Exactitude in Science' in *A Universal History of Infamy*, (Dutton, 1972).
- 8 "Portugal granted the PlanIT Valley project 'potential national importance' status, which among other things means cheap land and generous tax breaks." in 'Living on a platform', *The Economist*, November 4, 2010.
- 9 "Masdar City is a special economic zone providing business benefits such as a hundred percent foreign ownership, zero income and corporate taxes, and no currency restrictions", in a press release published by Reuters, October 21, 2012, at: <http://www.reuters.com/article/2012/10/21/idUS35170+21-Oct-2012+BW20121021>
- 10 See 'Internet of Things and Kickstarter – A Perfect Match?' for a good round-up at: <http://postscapes.com/internet-of-things-and-kickstarter>
- 11 For example, the Air Quality Egg, a crowd-sourced initiative to monitor and respond to indoor and outdoor air quality. At: <http://www.wired.co.uk/news/archive/2012-03/29/pachube-air-egg>
- 12 See 'Radiation Monitoring in Japan Goes DIY' at: <http://spectrum.ieee.org/tech-talk/energy/environment/radiation-monitoring-in-japan-goes-diy>
- 13 See for example initiatives such as *No-Park* and *Civic Action* launched by Natalie Jeremijenko, director of the Environmental Health Clinic, New York University.
- 14 See for example the work of Mark Shepard and his projects 'Sentient City Survival Kit' and 'Serendipitor', discussed in an interview here: <http://remotedevice.net/blog/serendipity-ubicomp-and-%E2%80%9Cover-coded-smart-cities%E2%80%9D-an-interview-with-mark-shepard-creator-of-serendipitor/>
- 15 Jane Jacobs, *The Death and Life of Great American Cities*, (Vintage, 1992).



NoParks, designed by Natalie Jeremijenko and co-developed by local residents, provide micro-ecosystems that prevent storm water run off in no-parking zones where fire trucks can still access hydrants in emergency.



The Water Hackathon in March 2012 brought together communities from Pachube, Ushahidi, DontFlush.Me, and Public Laboratory to develop strategies and tools for creating, understanding and working with water quality data from urban water ways.



Visualight, funded via designer Leif Percifeld's successful Kickstarter campaign, is a full-colour lightbulb that owners configure to notify them of events they want to know about (weather conditions, bus journeys, etc).