



# SMART CITY.ZEN

KARIM MAHMOUD

## Abstract:

Anxiety spreads during times of immense social cultural shifts. This is portrayed in renditions such as the dance of death in response to print technology – a perceived threat to intuitive and non linear means of collection and expression of information. This reaction is attributed our tendency to perceive today's issues with yesterday's ideologies. Today, many preach that forms of citizenship will cease to exist as our environments become “smarter”, rendering citizens as users and bits of information - often overlooking the agency lent to us as users of the technology; ultimately dictating the state at which it manifests socially and culturally. The extent of expression of agency, however, is confined within the parameters of the subject platform.

- How traversable or confining will the smart grid be?
- Are we overlooking the potential of the smart city in offering an infrastructure for the exploitation by citizens (constituted by the dumb and smart)?
- What form might an open source approach to city design and policy making take – and what are the relative consequences?

This abstract serves as a preface to an investigation as to where agency lies within the smart city scaffolding, and whether or not a collective domain of action within a reinterpreted scaffolding could lead to more socioculturally and politically inclusive processes of urban design and policy making.



## A SMART CITY MODEL

A smart city “package” constitutes centrally driven mass implementations and improvements of city infrastructures using ICT and sensor technologies in combination with a general IOT-ification targeted at:

- Goals of Sustainability
- Efficiency of infrastructural operation
- Boost of entrepreneurial incentives (business districts)
- “Personalization of the city to it’s citizens”



## AN ENGINEERED SOCIETY

- Approaches to smart cities:
- Tabula rasa
- sensor data driven “inclusive” policy/design decisions.
- Combination of both
  
- Both approaches take different paths that lead inevitably to a degree of false hypothesis and consequent implementations that fail to cater to the “whole picture” constituting concurrent sociocultural ideologies and needs – risking augmentation of it’s citizens to one dimensional, quantifiable sets of data.
- Uneven distribution of power (access to data / infrastructure) may provide corporations and politicians with the leverage and insight to consciously manipulate and/or augment our behaviors, risking a cognitively saturating and manipulative environment.



language

stupid

me

## AGENCY AND SCAFFOLDINGS

- A certain agency or power is lent to citizens as users of technology rendering them co-designers of it's cultural manifestation/impact.
- Examples of morphology of technology as per Agency:
- Writing (recording – communication – self expression)
- Pagers (preface to texting)
- Fridges (storage - communication)
- Street corners, building steps and sidewalks (utility – collection and interaction)
- Foursquare (city exploration – people exploration)
- Examples reinforce that within the scaffolding of the technological or physical platform (or commons) a certain right to appropriation or power is lent to citizens in morphing/populating the platform

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## WITNESS AND THE COMMONS

- In describing scaffoldings one must confront not only commons that are populated with expressions of our agency but to question the malleability of scaffoldings in response to collective power (top down bottom up cycle)
- Commons are quite literally shared domains acting as scaffoldings that become populated with our contingent uses which in combination with the social, political and technological context concreate in Witness: a symbiotic state of existence; constant dialogue between agents, agency and factors of interest.
- Gabrys points to a recurrent, reiterative cycle of implementation, manipulation, co creation based partially on an intuitive process of community learning (argumentation, negotiation, implementation) between factors (technologies, physical environment, sociocultural and political ideologies etc.) and actors.



An aerial photograph of a massive protest in a city, likely Cairo, Egypt. The protest is a dense sea of people filling a large open area, with many people holding Egyptian flags. In the background, a city skyline is visible, including several tall skyscrapers and a prominent tower. The scene is captured from a high angle, showing the scale of the gathering.

## DOMAINS OF AGENCY EXTENDED BY ICT

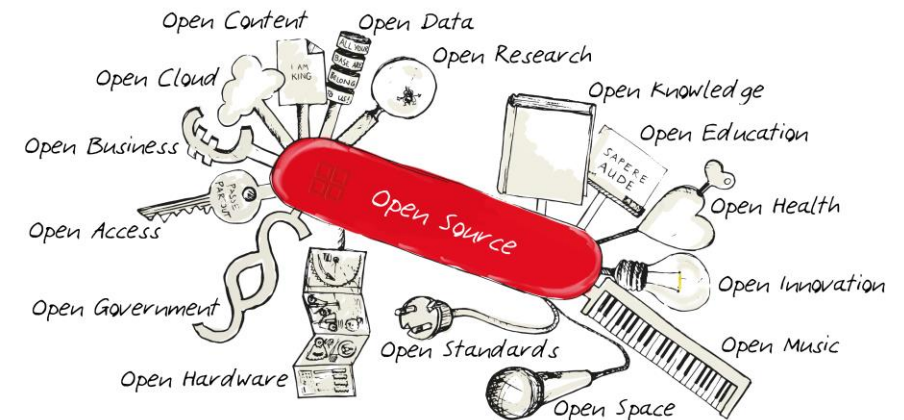
As the internet (digital common) begins to weave itself into our physical environment (if not quite literally then through its influence on actors on the physical environment), dissolving geopolitical borders and extending domains of agency past their original bounds. This manifests in extended means of communication, influence, organization and most importantly collective action. If geopolitical borders constitute a domain of power, a bubble in which we are managed, a dissolution of the border serves as a shift of power from it's central inception - often lending itself to a process of negotiation and accommodation.

- 1934 Russia: Stalin's NKVD secret police
- 2010-2011: Arab spring
- 2011 United states: Occupy Wallstreet
- Foursquare



# HACKING THE SMART CITY

- Hacking as an attempt in expanding or re-gaining domains of agency over the environment.
- Hacking software to manipulate utility (Stuxnet)
- Hacking technological “packages” to re-purpose parts in combination with concurrent technologies
- Both of which can be considered forms of creative expression and active participation in future implementations through un-restricted innovation (bottom up) or testing the integrity of the structure (uncovering bugs)
- Embrace of hacking in the form of beta structure (today’s ideology vs yesterday’s predictive, scientific isolation etc)







## AN ALTERNATIVE APPROACH

- An open source approach to design and policy making vs a dated centralized process.
- Distribution or delegation of power to citizens
- How would an approach like that manifest? What are the pros and cons? How could such a process be disturbed?





## SOURCES

- The medium is the message - Marshall McLuhan
  - Smart cities – Anthony Townsend
  - Smart Urbanism - Marvin, Luque-Ayala & McFarlane
  - Program earth – Jennifer Gabrys
  - Ambient commons – McCullough
  - A New Science of Cities – Michael Batty
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