Visible Cities
Featuring: The city as a platform, citizens as actors and
digital devices as remote controls

P5 Thesis Report
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Complex Cities Studio

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To my grandfather Maarten who always configured the living environment to the wishes of himself and to those of others. His craftsmanship was a medium to channel his social expression and his creative productivity will always stay with me as a source of inspiration.
IT IS MY BELIEVE THAT EVERYONE’S EXPRESSION THROUGH ALL KINDS OF CHANNELS OVER THE LAST CENTURIES WILL EVENTUALLY LEAD TO A FUTURE IN WHICH WE CAN COLLABORATIVELY ALTER OUR LIVING ENVIRONMENTS.
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This graduation project, Visible Cities, is both a research vehicle and a design laboratory in which the mediation between public space and mobile technology will be explored. The aim of this project is to indicate, through research, concepts about the interrelation of public space and mobile technology. To what extent do these concepts render the city transparent, interactive and hence ‘visible’? Ultimately these fundamental concepts will be examined on their potential in an urban design of a public space in Rotterdam, the Netherlands.
Mobile technologies, a collective term for communication technologies, are the foundation of a new social landscape in which people communicate and organise themselves differently than a decade ago. Our relationship with space has changed due to mobile technologies. Whereas the newspapers in the coffeehouses were the links in discussions decades ago (Habermas, 1991), today the links are made by our electronically devices that we carry in our pockets. Nevertheless in addition to being links, these mobile technologies enable us to act in different realms and scenes when we plug into them. Scott McQuire (2010) calls this circumstance ‘relational space’ in which the overlap of the material spatial regimes and the immaterial spatial regime, opened up by mobile technology, start to define space. Thus relational space indicates the cross-referencing of material conditions, such as spatial coordinates and characteristics, and immaterial conditions such as social networks with mobile technologies. Public space becomes thereby a relational network between people and spaces wherein people become nodes in this network (Lee, 2008). People become nodes because of carrying digital devices that mediate social affairs across multiple places. Thus public space becomes multilayered and spaces of friction between social and spatial similarity and difference (Willis, 2008).

McQuire’s notion of relational space is similar to Manuel Castells’ notion of ‘space of flows’ (1996). A space of flows is social simultaneity without territorial contiguity (Castells, 1996). In other words, social interaction has to some extent emancipated from the constraints of time and geography. Media infrastructure allows this type of social life to happen (Howard, 2011). Yet this media infrastructure is very material, consisting of material networks of computer servers, cables and energy generators. In any event these material networks enable that any city today is embedded with seemingly invisible social and spatial networks (Sassen, 2011).

**Principles and objectives**

Technology seems to have a big influence in the discourse of mobile technologies and cities. Castells states that technology acts as a medium, yet is a social construction with its own implications (Castells, 1996). He also points out that since technology is a social construction, social evolution and technology are intertwined (Howard, 2011). The agricultural and industrial revolution are therefore a result of both technological and social changes in society. However, the current information age is significant in its social construction because new relationships between people and information are reconstituted (Mitchell, 2000). The emphasis on technology seems to implicate that a techno-deterministic view dominates the discourse of urban society. Castells (1996) however clarifies the relationship between technology and society by stating that:
“Technology does not determine society nor does society script the course of technological change since many factors including individual inventiveness and entrepreneurialism, intervene in the process of scientific discovery, technical innovation and social application, so the final outcome depends on a complex pattern of interaction.” (Castells, 1996, p5)

The emphasis on the role of technology in social change is not only something from the last decade. The french avant-garde of architecture and urbanism of the 1960's had a total faith in the capabilities of technology. They believed in enhancing life quality and they were intensely speculating on the effects of technology on everyday life (Busbea, 2007). More generally and internationally in the 1960's was the idea that the computer would play a major role in the future of the city (de Waal, 2011b). The ideas in the 1960's of groups such as Archigram (Cook, 1999) and Situationist International (Ivain, 1953) and people such as Constant (Wigley, 1998), Friedman (Busbea, 2007), and Price (Mathew, 2006) did not only concern social transformation by technology. Key in their thinking was that technology could change our relationship with cities. In their speculative projects buildings and whole cities became adaptable systems consisting of user configurations. Nevertheless the advent of advanced computer software two decades later led to an architectural style of a formalism of wrapping and morphing techniques rather than the social transformation and user configurations of buildings and public space (McQuire, 2010).

The challenge
Public space can no longer only be defined by its spatial coordinates and characteristics (Lee, 2008). Yet public space is also more than the social networks, lives and institutions within it (Atkinson & Willis, 2009). Understanding today’s greater urbanism picture involves cross-referencing these spatial and social aspects with mobile technology because mobile technology has reconstituted our experience of the ‘real’ urban world (Atkinson & Willis, 2009). A reconstituted urban experience can redefine social relationships and above all our relationship with cities. It is therefore necessarily to research these implications for urbanism and the future of public spaces to stay knowledgeable about technological and social developments in society. Since urbanism is about long-term planning and mediating the future of the built environments, we must broaden the scope of urbanism to stay ahead of things and envision today what will happen tomorrow. We can envision new types of social interaction in the city and new types of city usage due to the influence of media and technology on the lives of citizens.

Aim
Visible Cities project is both a research vehicle and an urban design laboratory for envisioning new types of social interaction and city usage that arise from mobile technologies.

If cities were to act as a type of mass medium (Lefebvre, 1992) in such a way as mobile technologies act as a medium (Castells, 1996) then all the Web 2.0 features of new media (e.g. participation and collaboration) could be embedded in the city. This could lead to a city with the adaptable systems and user configurations dreamt of in the 1960's. Thus Mobile technologies give new opportunities in the reconstitution of the relationship between people and the city as speculated on in the 1960's. The aim is to investigate whether such ‘writing of the city’ is possible, desirable and what it could look like and to explore to what extent it can reconstitute the relationship between people and the city.
**Research Question**

To what extent can public space act as a platform in which citizens can programme and configure public space by the use of mobile technology?

**Sub research questions:**
- Are there main principles, concerning concepts and relevance, that can be derived from a synthesis of urbanism and mobile technologies?
- Can these main principles be translated into a spatial strategy for an urban design of a public space?

**Design objective**

Besides a theoretical research, the main research question also expresses the necessity of testing theories in a certain public space. This test case will be an urban laboratory which explores the integration of the concept of ‘programming and configuring space’ in a pragmatic manner. Local conditions will be considered when redeveloping a public space along principles derived from the theoretical study of the ‘Visible City.’ The designated site will be the waterfront ‘The Boompjes’ in the city centre of Rotterdam, the Netherlands. This is a key area within a city struggling with its inner city population and the quality of public space. The aim is to enhance the experience of the waterfront by engaging citizens to take control over their environment by programming the place themselves. Hereby the urban laboratory renders the integration of mobile technologies in urban design as both conceptual and explicit. Eventually this project is about whether the alternative approach of mobile technologies in urban design can generate new insight on how citizens can use public space and how they can engage with other people and moreover, with the city.

Source: Escher, Portrait of G.A. Escher, the artist’s father (1935). Lithograph, 23.6 by 20.8 cm.

Figure 2: Urban stories. (The crowd of the newspaper airship. Supplément illustré du petit journal, January 3, 1909. ‘Le dirigeable ‘Le Petit Journal’ atterrissant sur la pelouse de Bagatelle,’ Research Library, Getty Research Institute, Los Angeles.)
In the light of Visible Cities research vehicle and urban design laboratory, the sub-research questions that support the investigation and attain the design objective are as following:

**Sub research questions:**
- How can the spatial strategy, derived from mobile technologies, be beneficial to the performance of Rotterdam’s public space in the city centre?
- Which idiosyncratic site condition(s) of the urban area in Rotterdam could play a key role when devising the former mentioned strategy?
- How to design a place that allows for modification? How to design a place for the co-presence of other social and spatial domains and the culture of sharing?

**Study motivation**
Richard Sennett (1992) compared the city with a novel because the city unfolds experiences and complexities much as they are unfolded in a novel. In my opinion the city is an upscaled theatre and urbanism is scenography and stagecraft combined. Scenography is the design of a theatrical scenery and stagecraft is the technical application of it. Thus the urbanist envisions, designs and constructs an urban experience. He does this by plotting scenes. Hereby I use Henry Lefèbvre’s (1992) definition of scenes as where something takes place. Thus the urbanist can plot scene’s to allow a narrative to unfold in the urban environment.

Yet when a narrative takes form it can be communicated clearly and it can be implemented as a physical entity. However, in urbanism these forms function much more as scenario’s, something that may happen instead of what will happen. These scenario’s are in fact narratives, so the urbanist is a story teller. In urban design it is likely that one of the many scenarios have to be chosen in order to construct the actual place. However, this is shifting. Mobile technologies open up possibilities for citizens to actively engage with the city form and narratives instead of passively consuming them. Eventually citizens can adapt or even create their own urban experiences. This does not pose a threat to urban designers in my opinion. Instead, the urban performance of a place can be enhanced by introducing new city complexities which diver form the everyday situation in which scene’s are predictable and built from accepted relationships. Instead of introducing these complexities ourselves, as designers such as Archigram imposed (Cook, 1999) I believe that citizens will be the ones enhancing places. By this an interesting friction arises between what a designer envisioned and what is occurring. A ‘scene’, where something takes place, could all of a sudden be everywhere. The ‘obscene’, an area to which everything that cannot or may not happen on the scene is regulated (Lefebvre, 1992), could even be hacked by citizens to improve its urban performance. The urban designer takes up the role of arranging these incidents. In such an arrangements of incidents it is not the story itself that matters but the way incidents are presented to the audience, the structure, matters (Aristotle, 1961).

**Studio choice Complex Cities motivation**
This thesis project elaborates on digital technologies and its influences on cities. Digital technologies interrelate with globalisation to the extent that it supports globalisation. The Complex Cities studio investigates the effects of globalisation on regions, the city and on the local scale yet its focus is mainly mainly the spatial processes related to globalisation. Many of the effects of globalisation are not directly spatial but have a more social nature. Digital technologies are one of the many forces of societal change, it is thereby an appropriate theme
to be embedded in the complex cities studio. Because besides besides the spatial effects the studio is also concerned with the seemingly invisible social networks in a city. One of the studio’s theoretical discourses, governance and urban management tools, overlaps with this thesis project. Citizens are empowered by being allowed to have some control over their city’s performance. This thesis project raises questions about city governance in terms of who is exactly responsible for what and it explores the political domain of active citizenship.

Social&Ethical Relevancy

Project Relevance
Cities are usually hard to modify and have a strong sense of solidity. Atkinson and Willis (2009) call this ‘opaque cities’. On the contrary, transparent cities offer easy modifiability and are more concerned with the ephemeral flows of the city. The relevance of the thesis is that due to mobile technology we should no longer see public space as a static location but as a dynamic location. Normally, in urban design, there is a gap of years between the moment of initiative, design and implementation in the built environments. As a consequence urban designers always lag behind in events. Yet when a public space has such a lay-out that it could be anything, depending on citizens need, than that particular place can keep up with its time and evolve through time. Magazine are full with urban projects which looks best when just completed, often derived of people. A dynamic public space looks best after being taken over and changed by it citizens to something better. This dynamic location becomes a medium through which all kinds of public life can unfold and one that becomes dynamically adaptive to the needs of citizens. Through mobile technology, citizens can e.g. ‘activate’ a space by switching on or off certain spatial aspects.

Scientific Relevance
This project aims to add research to the body of knowledge on how spatial and technological interventions can be intertwined for more than the sum of parts. For this we have to look beyond the scope of ordinary urban affairs, such as mobile technology but also at the more urbanism orientated avant-garde ideas of the 1960's. Project Visible Cities attempts to unify two different yet interrelated discourses. On the one hand historically, the 1960's architecture and urbanism avant-garde’s ideas of free citizens and open city structures (Ivain, 1953). On the other hand the current notion that mobile technologies can create an open city system of open and available resources waiting to be configured by citizens (Greenfield, 2011). A synthesis of these will lead to insights on how to enhance the city experience and the design objective will lead to an understanding of how to incorporate mobile technologies in public spaces. Several authors have already outlined some of their ideas about the potentialities and relevance of mobile technologies and urban design (de Waal, 2011b; Cerveny; et all, 2011). Moreover the MIT’s ‘senseable city lab’ is studying the effects of ubiquitous computing on our understanding of the city and the way we might design our cities differently because of this. However, before mentioned authors’ main concern is how such a digitally mediated space could perform but not necessarily how it could look like. For this the artist’s sketches of the 1960’s are a good precedent.

Methodology
Research phase
The first step will be a theoretical research synthesising the discourse of urbanism and mobile
technologies dealing with the sub-research question:

• Are there main principles, concerning concepts and relevance, that can be derived from a synthesis of urbanism and mobile technologies?

A literature review will consider two different discourses. On the one hand historically, the 1960’s architecture and urbanism avant-garde’s open city structures programmable by citizens (Ivain, 1953). On the other hand the current notion that mobile technologies can create an open city system of open and available resources waiting to be configured by citizens (Greenfield, 2011). An examination of these discourses will result in a synthesis that will set out to formulate a number of main principles. These main principles ought to illustrate what the underlying logic and the raison d’être is of many of today’s mobile technology phenomena such as social media and city feedback applications (apps). The stance taken when formulating these main principles will be the spatial reading and writing of the city. The three guiding concepts are social transparency, urban transparency and citizen collaboration. These topics emerged from a preliminary study of which. The guiding concepts are narrowing the research scope for a practical examination of media usage in the city without the risk of doing a too elaborate media study. A selected list of literature will be the foundation of the theoretical research and is found in the bibliography.

In the second phase of the project I attempt to situate the design phase of my thesis project within a theoretical framework derived from the first step of research. This framework will be followed by recommendations for design in terms of the research question:

• Can these main principles be translated into a spatial strategy for an urban design of a public space?

**Design implementation phase**

In the next project phase the literature study will be situated within an urban context. Rotterdam, The Netherlands, will be the test case of this project. The city was already cutting edge with its social renewing policy at the end of the 1980’s. These policies were meant as a means to socially activate urban spaces. We will research to what extent Rotterdam’s urban spaces still have to be socially activated and if so how mobile technologies can play a role in this. We look at the city’s wishes and it will be argued why the Visible Cities project is a must for Rotterdam. The theory set out by the theoretical research and Rotterdam’s local conditions ought to bring a concept forward of how to incorporate mobile technologies in Rotterdam and why, dealing with the following research question:

• How can the spatial strategy, derived from mobile technologies, be beneficial to the performance of Rotterdam’s public space in the city centre?

The idiosyncratic conditions of the future re-designed public space will be defined in the following phase. This analytical research and design aims to find key site specific elements on which the design concept can be mainly based on. At this stage the design project tries to envision a spatial framework, based on idiosyncratic
site conditions, in which mobile technologies can be incorporated in at a later stage. This will happen on two levels, namely the public space of the neighborhood and the 'main' city's public space such as squares. The research question addressed here is:

- Which idiosyncratic site condition(s) of the urban area in Rotterdam could play a key role when devising the former mentioned strategy?

The final phase deals with the programmatic infill of possible uses and elaborates how the place can be used. Essential in this phase is the research of the place's affordances. Affordances is a term coined by Gibson (1986) which he described as a complementary state of organism (humans) and the environment. A clear example of this is given to us by Norman (1988) who describes the affordance of a door as the property of the door, the door affords to be opened by pushing against the vertical plate what we call a door. Investigating a place's affordances will reveal how the place can be used in different ways but also of how the place can have multiple operational appearances. The research question attained in this phase is:

- How to design a place that allows for modification? How to design a place for the co-presence of other social and spatial domains and the culture of sharing?

This project is research driven design since the main role of the theoretical research and the recursive and iterative processes in the design phase. This does not render the design an official solution of a pre-defined problems and conditions but rather an ongoing research and design process in which every design intervention has to be analysed on its affordances. This makes this thesis project an ongoing test site, it is an Urban Laboratory.
1 Transparent Cities

Henri Lefebvre argued that the work of the urbanist - the city - is a type of mass medium (Lefebvre 1992), in that sense we manifest ourselves through cities as we do through internet. Baudelaire (1995) claims that through their personal manifestation cities can turn people outwards. Thus a city stimulates the expression of one’s personality. However this has not always been the case. According to Richard Sennet life in the old European Christian city was characterised by spiritual inner experience and the finding of oneself. Life unfolded behind closed doors (Sennett, 1992). In the age of enlightenment, the Christian inner experience was exchanged for an extrovert experience of the world, although this was mostly nature and not the city (Sennett, 1992).

1.1 Social transparency

Sennett (1977) states that whereas in the 18th century one was concealing one’s personality, today one centres oneself in life by means of social manifestation and by revealing one’s personality. Revealing one’s personality in social dealings became an authentication of oneself as a social actor enabling one to step outside oneself amongst others and develop oneself. Adolf Behne (1919) stated that the dualism of the private 19th century interiors and the public experience lagged behind the times. He saw glass architecture as a solution to a more transparent, social life (Behne, 1919). Walter Benjamin (1980) further abolishes the Christian city when writing that a society of transparent social relations only emerges when the Christian ideology of the inner life is being renounced. He states that transparency is the basic metaphor for modernity (Benjamin, 1980). In modernity everyone is expressing themselves but at the same also searching for themselves (Sennett 1977). Therefore personality is of interest and every life is an open book. The metropole thereby offers a certain degree of social transparency, firstly through social relations, then through an architectural embodiment of these new social relations and until the present where this social transparency has been extended to the World Wide Web via Web 2.0 applications.
1.2 Urban transparency
Like people, cities also express themselves and have a ‘personality’. Cities, Lefebvre (1992) argues, express through themselves city language. This language expresses itself through form and the citizen has to interpret its function. Thus Lefebvre (1992) speaks of the reading of space. A subject is more transparent the closer the relationship is to the material realm of form, structure and function (Lefebvre, 1992). In other words, the easier it is to decipher the city codes, the more readable an object or city becomes. In Lefebvre’s opinion perfect readability equals transparency (Lefebvre, 1992). Thus, besides social transparency, the notion of an urban transparency emerges. That is where a social transparency can really manifest itself while at the same time forming the basis to this very urban transparency as the evolution of social life.

1.3 Mapping the city
The reading of space is an intellectual activity because one has to comprehend the surroundings. One approach to understanding the codes of space is by mapping it. These codes can reveal valuable insight when seen as data merged with geographical information. The first urbanists already sought relationships between the city and the place on the map (Sennett, 1992). Lefebvre (1992) however is sceptical about the capability of using maps to understand the complex interrelations of space:

“How many maps in the descriptive or geographical sense, might be needed to deal exhaustively with a given space, to code and decode all its meaning and context?” (Lefebvre, 1992: 85).

Although with the advent of mobile technologies all measurable ephemeral city aspects can be traced and visualised, it becomes realistic to map the immaterial public realm, whether it is the underlying logic of city systems (Latour, 1998) or citizen’s behaviour patterns (Fiore, et al, 2011).

Despite this, mapping is a tool for structuring information and it is therefore a structuralist conception of space. There is also a phenomenological way of experiencing space (Busbea, 2007). This dualism in experiencing space is well indicated by Varnelis and Meisterlin (2008):
"As we have grown accustomed to navigating the city with our smart phones and our print outs from google maps, we have come to know it from above, as a two-dimensional, planimetric experience. Instead of seeing ourselves as part of the city fabric, inhabiting a three-dimensional urban condition, we dwell in a permanent out-of-body experience, displaced from our own locations, seeing ourselves as moving dots or pins on a map." (Varnelis & Meisterlin, 2008)

To benefit from a comprehensive urban experience one must merge the structuralist and phenomenologist conceptions of space. Strictly, a structuralist conception equals a panopticon concept of space in which everything is monitored from above and is not an actual space itself (Latour, 1998). In Bruno Latour’s (1998) oligopticon concept, the structuralist and phenomenologist concepts are united. In the oligopticon, concept sensors are situated at local places and they measure city aspects. They are ‘centres of calculations’ (Latour, 2005: 181) These sensors operate independently from each other and are not directly connected. However, a vast network of these sensors can process information about the bigger picture of a city. However, “The Big Picture is just that: a picture” (Latour, 2005: 187). One must be aware of its parameters, the medium through which it is projected, where it is shown and to whom it is addressed (Latour, 2005).

Mobile mapping, as a type of city mapping, emerges when many citizens become actors in this oligopticon network by sending information via their digital devices. Every actor sends information about his local circumstances which, when combined, depict what is global. An oligoption involves ‘localising the global’. However, what is key to the phenomena of mobile mapping is the accessibility for all users, the ability to create, edit and to view content. Thus, mobile mapping, can offer urban transparency (McQuire, 2010). Mark Shephard defines this readability as:

“The city becomes a network of nodes and pathways through which we circulate like data packets. ‘The city is here for me to use’ is the underlying logic: a searchable city with an easily accessible shopping chart.” (Shephard, 2011: 26)
1.4 Consuming the city

The effects of mobile mapping, rendering the city as a searchable shopping chart, as illustrated by Shephard (2011) is also a more general product of media. In their investigation into the influence of gaming in real city usage Atkinson and Willis (2007) conclude:

“The city is transparent to the extent that it is being constantly looked ‘through’ to see simultaneous, alternative and competing possibilities by players.” (Atkinson & Willis, 2007: 407)

According to Adam Greenfield (2011) there is a causal relationship between looking through the transparent city, and creativity and productivity:

“We will come to such a vastly improved understanding of the places we live and the processes unfolding all around us. Such situational awareness will, among other benefits, act to sharply reduce or mitigate the fear that keeps so many from fully embracing the life available to them, allowing the broader community in turn to benefit from the energy and talent they have heretofore been unable to bring to the table.” (Greenfield, 2011)

Therefore the city becomes tangible. Lefebvre states something similar. He sees the city as an oeuvre: a mode of production characterised by genuine creativity and social need, as a give-and-take system. (Busbea, 2007). Both Greenfield's and Lefebvre's notions suggest that creative productivity is inherent to citizens. The reading of space can thus imply a certain action. Since reception is prior to action one could state that the reading of space (reception) induces a writing of space (action). Yet according to Lefebvre this would only be possible in already existing spaces and he questions whether the possibility of writing space could actually exist (Lefebvre, 1992). Yet one could wonder what this writing of space might mean for the built environment. Contrary to what Atkinson and Willis (2009) call 'opaque cities,' cities with a low modifiability and a strong sense of solidity, transparent cities could perhaps offer user modifiability. This might be done in both a digital and in a physical manner.

2 Leisure Cities

As stated in the previous chapter, citizens’ production of the city is a derivative of citizens’ consumption of the city. Yet there is an intermediate circumstance, namely leisure.

2.1 The advent of leisure time

People first got leisure time when the seventy hours workweek was reduced in the 1920s. Whereas since the industrial revolution the labourer’s time has been marked by his productivity, in the 1920s his spare time was problematised because of the introduction of leisure time and weekends (Wortman, 1988). However, leisure time is merely a derivative of social and economic change. Leisure time was not offered merely out of sympathy for the hard working labourer. Rather than being a result of social demand, leisure time emerged from an economic need (Wortman, 1988). It enabled people to consume. Thus the rise of the leisure and consumer society emerged (Ivain, 1953; Touraine, 1971). Leisure and consumerism appear to be intertwined in a leisure and consumer society.

Sennett (1992) gives a broader definition of leisure as a state of not being busy but just letting things happen. This notion of leisure seems to somewhat echo in Johan Huizinga’s notion of the homo-ludens (Huizinga, 1971). He states that the element of ‘play’ is an essential part of human culture (Huizinga, 1971). According to Huizinga play was a primary social function. It
was a closed, irrational activity whose performance was its own end (Busbea, 2007). Thus play is spontaneous and undirected (ludic) and leisure can be like that as well.

2.2 Home in the city
These last notions state that leisure is not limited to consumption and that it is mostly a social and undetermined state of being. Such is the state of the ‘flaneur’, a term coined by Baudelaire (1995) to describe a leisurely stroll in which one observes society. The term flaneur was adopted by the Situationist International and developed into the ‘dérive’ (Ford, 2005). For them the dérive was a type of ‘psychogeography’, unravelling the psychological impacts of the urban environments by walking an unplanned urban journey (Wigley, 1998). This is another type of space comprehension than that done by mapping yet it does show similarities with mobile mapping. Therefore being a flaneur involves carrying out a thorough study of the city language and is thereby a type of active city consumption as a form of leisure. In this respect, the use of the city in a state of leisure has broadened the usage of the city. Walter Benjamin wrote:

“The streets becomes a dwelling for the flaneur; he is as much at home among the facades of houses as a citizen is in his four walls... the walls are the desk against which he presses his notebooks; news-stands are his libraries and the terraces of cafes are the balconies from which he looks down on his household after his work is done.” (Benjamin, 1977; 37)

Because of technology citizens do not have to rely on the Heideggerian notion of ‘place’ anymore and so the whole city becomes their home (Levinas, 1961). Whereas in the past city squares dominated public life, with the advent of the flaneur the streets became the city square. The passive spectator of city life became an active spectator (Virilio, 1977). The citizen could consciously experience and engage in the complexity of the city. This experiencing of complexity is, according to Sennett (1992) key in self development as a person. According to Sennett the city unfolds experiences and complexities much as they are unfolded in a novel. It is a productive experience of complexity (Sennett, 1992). A city in which a novel unfolds could be called a narrative space. Narrative spaces are ‘arrangements of incidents’ in which not the story itself but the way incidents are presented to the audience, in other words the structure matters (Aristotle, 1961).
2.3 The urban narrative

Besides the undetermined view of leisure of Sennett (1992) and Huizinga (1971), Constant Nieuwenhuys offered another perspective. His ideas were rooted in the ideas of Unitary urbanism: the change of lifestyle and the game of life (Wigley, 1998). However Constant relates leisure time and its freedom to creative freedom and productivity. According to Constant leisure, creativity and productivity are interrelated, emerging from a state of play (Wigely, 1998). He borrowed the notion of play from Huizinga (Wigely, 1998). Constant’s idea of society is of a creative society, thus rendering leisure productive and not merely as just letting things happen.

Whereas Sennett (1992) compares the city with the media, like in a novel, Atkinson and Willis (2007) compare the city with a game. A game, as a type of media, that interacts with the user in contrast to a novel. In games, gamers can influence or even create the narrative. The result of this understanding of the structure of urban space and experiences is described as ‘ludodrome’ (Atkinson & Wills, 2007):

“In which players imbue the city with playful associations and curiosity as a result of gaming.” (Atkinson, 2007)

Whereas the ideal of the Situationist International ‘flaneur’ was to unravel and be part of the urban narrative, Atkinson’s ‘Flaneurs electroniques’ is all about playing with and creating the urban narrative (Atkinson and Willis, 2007). Furthermore they state that as a consequence of ludodrome the urban structure becomes fragmented and destabilised because of the narrative and interactivity implicit in games (Atkinson, 2007). The city is perceived as something which can be influenced, adapted, and enhanced. Everyone can create their own narrative of the city.

2.4 The selective narrative

Yet according to McQuire this public culture of productive leisure has changed to the society of the spectacle with its ‘stimuli’ (McQuire, 2010). The city flaneur became determined, instead of being undetermined, and got a shopping cart in front of him.

It is interesting to see with what kind of people and scenes citizens connect and engage. Even with an urban narrative people filter social and physical encounters by making choices both in the physical world and on the World Wide Web. Thus people get an individualised (filtered) experience of the world (Howard, 2011). Nevertheless, this is not without reason. Freud (1961) argued that gaining protection from stimuli is even more important than receiving stimuli. Most importantly, Nietzsche (1968) warned about the ubiquitous sensory impression leading to men unlearning spontaneous action - as a type of ludic behaviour - and merely reacting to stimuli from outside. The urban experience would thereby become rational (Nietzsche, 1968).

The question that is raised is whether we will ever be exposed to various opinions due to our own rational internet filters (Howard, 2011). This is actually the paradox of social media, which claims to improve social enhancement. The danger resides in not getting in touch with the unknown anymore. This danger is also the underlying fear of the abandonment of the public sphere in Marc Augé’s ‘None-places’ (Augé, 1995) and the escape to all-in-one destinations (Smithsons, 1967).

Social theories indicate however that the experience of ‘otherness’ is vital and that is forms the basis to public life (Simmel’s, 1950). One of the characteristics of urban life is that urbanites live together with strangers, each with their own fate, and share space (Arendt, 1958; Habermas,
1991; Sennett, 1977). However by contrast Arendt (1958) stated that the ‘world of things’ is what unites people and separate them at the same time whereas Sennet (1992) argues that this separation of the world of things is exactly what unites people.

‘Difference, discontinuity, and disorientation ought to be ethical forces which connect people to one another.’ (Sennett, 1992: 226)

Experience of otherness triggers our self-development because according to Sennett having contact with strangers helps one to be centred in life (1992). Yet this ideal social situation is not often really found in the city. Cities, some more than others, are made up of social clusters with social fragmentation (Reijndorp, 2001). The public sphere is one of the most important concepts in social and political science yet it is increasingly more digitally mediated.

“The public sphere is the space - increasingly a digitally mediated space - in which people discuss cultural values, compose solutions to shared problems, and implement collective projects.” (Howard, 2011: 40)

That is why it is interesting to explore new forms of publicness and exchange - with an emphasis on collective projects - in digitally mediated spaces. One of these new forms of public space is the Internet of Things. With the Internet of Things, notions of public space are not defined as spatial places consisting of strangers but are rather based on the organisation of people around an issue of concern (de Waal, 2011a). This can already be found on the web and in city clusters of functions. One application of this sphere around objects has already been mentioned by Castells (1996) and signalled as Hypertext. Hypertext is social data that allows for social tagging and linking. This social data can be inscribed in the built environment and in objects as a kind of cultural product. Everyone can inscribe their own story in spaces. Hypertext can lead to a situation favoured by Habermas (1987). A situation in which all parts of society can engage in an open dialogue to arrive at the best possible solution for society (Habermas, 1987). If all parts of society engage then the possibility of encountering different stories becomes bigger.

The dérive method of the Situationist International (Ford, 2005) could also be seen as a way of achieving an experience of otherness. This unplanned urban journey could be compared to spontaneously surfing on the web by interlinking social data. In that sense social data can be de Waal’s (2011a) collective issue of concern. However, this is exactly what, according to Sennett (1987), leads to the avoiding of strangers because sharing social data with them would become too intimate. Information as neutral social exchange would be more secure in engaging public life without the danger of intimacy. However one might wonder whether not all information is social to some extent.

3 Collaborative Cities

Michel de Certeau (1984) describes urban tactics and strategies for city appropriation. Whereas strategies are top-down and mostly apply to urban designers and the policy makers of a city, citizens can only exert bottom-up tactics in the city (de Certeau, 1984). Anyhow, these tactics can provide a voice and competence for individual citizens just as the Situationist International wanted them to do so (Ford, 2005). This gives rise to citizen collaboration and open-ended city systems provided by urban designers. This citizen collaboration is the basis to a possible online planning system (Andrew Hudson-Smith, 2003). Saskia Sassen (2011)
asserts that the effects of online planning systems through the internet enables activism:

“Through the internet, local initiatives become part of a global network of activism without losing the focus on specific local struggles. It enables a new type of cross-border political activism, one centred in multiple localities yet intensely connected digitally.” (Sassen, 2011: 40)

Despite the opportunities that online planning systems offer we will focus on direct interventions in the city. Thus we will focus on the direct writing in the open ended framework of the city.

3.1 Dematerialised architecture

An urban open-ended framework is in fact a city. Yet a city is more than its buildings. Buildings have for a long time been associated with solidity and immovability, but to Lefebvre (1992) it is the flows which run through the buildings that matter. The scope widens for a dematerialised notion of architecture in which the urban mainly consists of flows and conditions. All that is solid melts into air’ (Marx & Engels 1888) as it were. This was also the stance of the theoretical and speculative work of the French design avant-garde in the 1960s in which:

“Urban space came to be seen not as a neutral container but as a conductive medium for the movement and exchanges of people, information, and objects.” (Busbea, 2007: 10)

With their Living City project the British design collective Archigram tried to capture the temporary state of being and make the spectator aware of the ephemeral environments around him (Cook, 1999). Their famous statement, rendering architecture redundant in cities is:

“When it is raining in oxford street, the architecture is no more important than the rain, in fact the weather has probably more to do with the pulsation of the living city at a moment in time.” (Cook, 1999: 20)
Here Archigram claims that the non-built has more to do with city life than the built environment. They were not concerned with urban form, but rather with urban performance which stimulated city life. Urban performance can by achieved by introducing new city complexities which diverge from the everyday situation in which scenes are predictable and built from accepted relationships (Cook, 1999). The whole definition of scene from Lefebvre (1992) is being widened here as well. A ‘scene’, where something takes place, could all of a sudden be everywhere. The ‘obscene’, an area to which everything that cannot or may not happen on the scene is regulated (Lefebvre, 1992), could even be hacked to improve its urban performance.

3.2. Hacking the city

Another project from the 1960s is Schöffers cybernetic city. Similar to Archigram’s Living City, the cybernetic city is an open framework city which is more concerned with city stimulations than with built form. But what makes the cybernetic city so characteristic is that besides the ability to enjoy the city’s spectacle, citizens could also actively program and create new spectacles (Busbea, 2007). Thus because of citizens events could unfold instantaneously instead of being planned in advance by urban designers or policy makers. Lefebvre also asserts that cities where events unfold instantaneously are the most beautiful ones (Burgel, Burgel & Dezes, 1987).

One more project characterised by the possibility of programming space is Cedric Price’s fun palace. This is a city machine that is united in one single building, a building where every element could be rearranged or programmed (Mathews, 2007). This notion of programable space is also being imposed on the city by Greenfield (2011). In his future ideal city the behaviour of cities is not determined but rather conditioned by media design. He calls this open-sourced networked urbanism Greenfield (2011):

“The city should invite its users to demystify and reengineer the places in which they live and the processes which generate meaning, at the most intimate and immediate level.” (Greenfield, 2011)
A practical approach is from VURB, involving a collective research of computational systems. They describe their conditioned media design projects in the following way:

“Ultimately the aim of these projects is to understand the implications of ‘digital experience architecture’ as an aspect of urban design where public space becomes dynamically adaptive to the needs of its occupants and the city weaves together as a mesh of these dynamic locations into a platform for citizen enabling network applications.” (Cerveny, et al, 2011: 61)

Interesting questions arise such as whether everyone has access to these city applications. The competing uses for space would have to be somehow managed.

3.3. City feedback mechanism
All previous examples aim to use the city to the utmost degree. In Greenfield (2011) words:

“Transforming the urban landscape into a meshwork of open and available resources.” (Greenfield, 2011)

Such a meshwork of open and available resources could be constantly monitored by monitoring all the needs and actions of a city’s inhabitants. This was already inherent in Archigram’s Computer City project. It is a project with a day-to-day responsive system that continuously senses requirements throughout the city (Cook, 1999). However, such a system could also be simulated, or modelled, in new city areas. In such a model all possibilities could be realised because all agents are adaptable and interchangeable (Latour, 1998). When the outcome is not desired, another result is at hand when changing some of the actors’ characteristics. This is a form of parametric design that facilitates a faster urban planning trajectory because of the constant loop of feedback and change. This is possible in computational networks (Veselý, 2002) yet it could theoretically also be applied to city networks. Through simulations we can better understand city life and forecast the effect of design interventions by letting virtual actors interact with the model of the design. This simulation method is to some extent closing the design-science gap of the idea that in design ‘anything goes.’ Anything goes because of the multitude of possible solutions to a multitude of problem interpretations (Rittel, 1977). Whereas previously the outcome of a design or policy could only be measured after a long time, in which both the problem and its solution could be inaccurate (Rittel, 1977), we can now forecast the effect of design interventions. The physical urban laboratory shifts to the computer model.

4 Conclusion
Cities have always been a channel for the exchange and flows of people, objects and information. However the flows of information are of an increasingly social nature, so we can speak of social information. Social information is the manifestation of one’s personality and it is something that has evolved throughout the centuries. Whereas in the 17th century authentic social expression was confined to private quarters, in the 18th century the city’s public network of plazas and boulevard became the medium for the manifestation of a citizen’s personality. In that way the city became a platform for social manifestation after having been a place of inner seclusion for centuries. A few centuries later the internet facilitated expansive social expression to the point that expressing an authentic personality has become a real social validation. What we can observe from this is the rise of a certain social transparency.
Social transparency is however also the cause of a relatively new occurrence: urban transparency. With the advent of digital technologies everyone’s shared items and opinions - user generated content - render the city transparent. Urban transparency leads to the situational awareness of knowing what to do where, how and why. A paradoxical situation emerged because in order to get a comprehensive view of the city one has to look at a mobile screen instead of following one’s own intuitions in an urban environment.

Other than social transparency, there is also another cause to urban transparency. Namely sensors. City sensors feed all sorts of measurable aspects into one big city monitoring system. This is a system most often compared with the big brother control room. However such a system perceives the city as a ‘whole’ and it can dynamically adapt the city, whether it be applied to energy or water supply or the prevention of crime.

What is inherent to the transparent city is a stimulation of creative productivity because all people’s possibilities in the city are made visible (Greenfield, 2011). The reading of the city starts to trigger a creative production in the city (Greenfield, 2011). In the interactive city citizens can, besides reading space, also write space. The writing of space would be something in which leisure, play and productivity become interrelated (Wigley, 1998). By reading and writing, citizens can engage with and interact with the narrative of the city by programming their own events. The city thus becomes something interactive and adaptive to the commands of citizens. This is a collective process, enabling citizen collaboration and the exchange of information. City networks thereby start to engage with citizens. Yet a smart city would also monitor and adapt to citizens needs (Busbea, 2007). Information as neutral social exchange can be exchanged to securely engage in public life without having to cope with the threat of social intimacy (Lefebvre, 1987). Public life could then be devoted to productive leisure time activities.

5 Field framework

There are various ways of how to work with mobile technologies and cities and none of them is confined to one specific profession. All approaches are interrelated and multi-disciplinary and are not necessarily as straightforward as how they will be described as below. However we can set out to define approach categories that describe the overall intention and each approach's means.

5.1 Data harvesting

Digital data is becoming increasingly ubiquitous in our environments. If knowledge is power than having the right data is the key. We share our personal data on the web, share created content and give opinions or use data from already existing databases whether it are public transport time schedules or music libraries. Computer algorithms can analyse trends before they have even started. The creation of data and its processing happens in two ways, by:

- Social agents: citizens create and share data with their digital devices. Work in the field of social agents is related to a ‘social whether’ report, sensing needs, actions and a general mood of the public.
- Sensor agents: sensors embedded in the city collect data concerning city systems such as traffic, electricity usage and garbage processing. Work in the field of sensor agents is represented by large data monitor centers that keep track of what is happening in the the city in terms of traffic, electricity usage and crime to name a few.
Information graphics can reveal interrelated links between what is happening on multiple places in the city, leading to what can be called a causality mechanism. GIS, a geographic information systems, is a way to visualize data and its interrelations.

5.2 Situational awareness
Information graphics can influence public opinion and civic activism besides informing people or computer systems of city processes. Citizens can be informed of the city’s governance and events so that they can respond. Moreover, digital data can augment our reality. This is the point of departure of the field of augmented reality in which digital data overlaps with our human sensory data. In this field we can speak of a layered situational awareness and much of the work to get this done goes into the design of mobile device interfaces that mediate between all the digital and physical layers.

5.3 city making systems
The above mentioned approaches could change the way we understand and live in cities. Moreover, the way how we shape our cities might be different in the future. In general terms there is a top-down and a bottom-up approach:

- Top down: Closed-circuit system; work in this field is is related to the ‘smart-city’ movement which sets out to built city mechanisms that senses all data, like needs and usage of electricity or transportation, and addresses this by setting things in motion. Currently test cities for these mechanism are built world wide.
Bottom-up: Open system; a system that motivates citizens to actively program and configure their surroundings. The intention here is to give a voice and resources to citizens and offering them all city data in an open-source environment so that they are the ones who work with and adapt the city and its data for purposes on local, city or on national level.

This thesis project will focus on the later aspect, bottom-up city making systems. However, this thesis project will not be limited by this approach since all above mentioned approaches are interrelated. Within this framework we set out to design a public place that enables citizen’s action.

6 Recommendations

I would like to plea for a merger of the two urban transparency models, user generated content and city sensors. One city app would be a logical outcome, however an app is a closed-circuit system that allows little modification by others. What we need is an open platform that can rightfully call itself an urban medium again in the sense that of being a public domain that can be adopted and adapted. This is the U.API. It is not just one product. It is a system designed to link all (social) city information systems and allow citizens to make use of its databases and content. People are free to design software and interfaces to interact with this collective data. With such a system we move from merely situational awareness to a platform that gives a voice to citizens and enables and activates them to come up with their own products for local city situations.

But what if public space, the physical urban medium, is designed as a U.API? This could signify the design of a place that allows for plug-in programs that interact with people and other plug-in programs. What is crucial to this scheme is the design for affordances so that a place is not defined by how it ought to be but instead what it could be. A place must trigger citizen’s imagination by indicating the potential uses and action possibilities, hence affordances. Citizens become therefore responsible for their public space’s performance. Professional designers only have to create the overall spatial composition and establish an open framework for programmes, like one giant scenario chamber. Furthermore tools and resources need to be offered to assist citizens in the creation of their programme. Due to competing uses of
space, citizens will have to seek alliances to collaboratively programme and configure public space. This renders the public domain a political domain again. This form of action can be a new type of urban leisure, namely a creative productive leisure. However, one can still wonder whether these possibilities are a blessing or a curse since its success will depend on a new type of citizen; an active citizen.

This does change the role of designers and citizens however. Instead of proposing large top-down strategies and design, designers ought to construct an open system in which citizens can act. However, this does not render the designer’s role obsolete. It is just a matter of dividing the tasks and responsibilities. Michel de Certeau (2002) distinguishes strategies from tactics. Whereas strategies are top-down devices at the hands of designers and policy makers, tactics are bottom-up devices at the hands of citizens. The designer still defines the key parameters of the space’s performance by top down strategies. He designs a system. Yet it is also imaginable that by citizens’ actions, the whole system of the place will evolve as well instead of only its performance. Such a design strategy raises certain questions about the governance of a place and about who has the responsibilities. We could think of a place making manual that helps the designer to define the overall system and which also helps the citizen in his leisure time activity of programming and configuring space. Such a game manual addresses certain aspects:

- Players: What is the target area and what is the main reason for them to go to the project area?
- Rules: What are the rules of programming and configuring space and how can one collaborate with one another on this? Are these rules set or can they evolve, and if yes, by whom and how?
- Game master: What is the overarching monitor and safety system, monitoring the differences of space usage and safety aspects?
- Resources: What are the elements that citizens can appropriate to programme space? Are these elements configurable as well?

Used in the right way, place making tactics can empower citizens. Citizens get the feeling that one can assert influence on one’s surroundings. However, the danger resides in always demanding that citizens will be creatively productive in asserting influence on one’s surroundings. This constant mode of creative production seemed to be Constant Nieuwenhuys’s stance in his...
New Babylon project (Wigley, 1998). This mode of creative productivity however can create an stimuli overload. Nietzsche (1968) warned about the ubiquitous sensory impression leading to men unlearning spontaneous action and merely reacting to stimuli from outside. The urban experience would thereby become to rational (Nietzsche, 1968).

Besides the liberating sense of freedom of asserting environmental influence and the danger residing in it, there is another aspect to environmental control. According to Bell, Green, Fisher and Baum (2001) a place triggers adaptation when it is not optimal. They claim that if there is no equilibrium between a place and its occupants, than the occupant reacts very strongly to the differences of this place. Differences are most experiences in the built environment (Sennett, 1992). This implies that a perfectly designed place triggers less spontaneous behaviour and urge to engage with a place than a less perfectly designed place. In short, the envisioned open system designed by the professional should be ‘not-so-perfect.’ As a designer, we can plot certain scenarios for a public space, but we can never really know what it will and can become.

7 design strategy

Goal: A strategy for stimulating the city’s pulsation by opening up the city for citizen’s programming and configuration of public space
WE CAN GIVE CITIZENS A VOICE AND COMPETENCE TO BE CREATIVELY PRODUCTIVE IN PROGRAMMING AND CONFIGURING THEIR LIVING ENVIRONMENTS. THIS IS THE NEW STATE OF LEISURE
**Design process**

1. **Urban design**
   - Spatial structure: durable backbone
   - Programme: actors, functions and elements

2. **Design for Affordances**
   - Plots: Thematically programmed with potential uses
   - Resources: utilized for creating situations

3. **Urban API**
   Log-in medium rendering the place transparent
   - Activity
   - Policy

4. **City appropriation**
   Programme and configure the place within the guide lines of the codes of conduct.

5. **Codes of conducts**
   - Potential users
   - Rules: behaviour + responsibilities
   - Organization model

**Active citizenship**

1. **City participation**
   Experience the city

2. **Community building**
   Form a collective around an issue of concern

3. **Hacking Scenes**
   Re-plot scenes and re-write the codes of conduct

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**SPACE RESPONSIBILITY POLICY**

**Designer's strategy: plotting scene**

1. **Urban design**
   - Spatial structure: durable backbone
   - Programme: actors, functions and elements

**Citizen's tactic: adopting scenes**

1. **City participation**
   Experience the city
LED CREATIVE PRODUCTIVE LEISURE
STIMULATE THE CITY’S PULSATION BY
OPENING UP THE CITY FOR CITIZEN’S
PROGRAMMING AND CONFIGURATIONS
OF PUBLIC SPACE
Rotterdam was bombed near oblivion during the second World War German invasion of the Netherlands. The city was rebuilt with modern architectural principles and became a space for experimental architecture. The city is in constant transition ever since and Rotterdam’s harbor has developed into being the gateway to Europe and into being one of the world’s biggest in its kind.

In the light of Visible Cities research vehicle and urban design laboratory, the sub-research questions that support the investigation and attain the design objective are as following:

How can Rotterdam’s city centre benefit from this strategy for its public space and city performance?
Which idiosyncratic site condition(s) of the urban area in Rotterdam could play a key role when devising the former mentioned strategy?
How to design a place that allows for modification? how to design a place for the co-presence of other social and spatial domains and the culture of sharing?
Rotterdam started as a little settlement at the river ‘de Rotte’ around the year 900. It was not until 7 June 1340 that Count Willem IV of Holland granted city rights to Rotterdam.

With the completion of the shipping canal, the Rotterdamse Schie, Rotterdam became a local transport hub between Holland, Germany and England.

Since the construction of the Nieuwe Waterweg, a ship canal connecting Rotterdam with the Northsea, in 1872 Rotterdam accelerated in growth triggered by the development of being a transport hub within Europe.

The city was bombed severely by the German Air Force on 14 May 1940, leaving only a few buildings standing in the city centre. Just four days later, city architect Witteveen started drawing up reconstruction plans for the City. However, these plans never got through. van Traa’s plan for Rotterdam got approved by the municipality of Rotterdam in 1946, rendering Rotterdam as a modern city.
Rotterdam 1625 Merchant city
Shipping canal, the Rotterdamse Schie, Rotterdam became a local transport hub between Holland, Germany and England. Because Delft did not want to be depending on Rotterdam too much, Delfshaven emerged at the River de Maas.

Rotterdam 1850 Transition city
The city expanded beyond its former walls. Peat was dug in North-East of the city and the railway appeared.

Railway
Rotterdam 1937
Dynamic Metropole
Since the construction of the Nieuwe Waterweg in 1872, a ship canal connecting Rotterdam with the Northsea, Rotterdam accelerated in growth triggered by the development of being a transport hub within Europe. Rose’s plan for the water ‘sins-gels’ cleaned the city and the city accumulated wealth and gained recognition as a cultural and international city.

Rotterdam 1940
Wounded city
German Air Force bombed the city centre on 14 May 1940.
City architect Witteveen drew up reconstruction plans for the City. However, these plans never got through
Rotterdam 1965
Reconstruction, Functional city
van Traa's plan for Rotterdam approved in 1946, rendering Rotterdam's city centre as a modern city.

Rotterdam 2010
Repairing city center
Rotterdam as Gateway to Europe
Rotterdam has the visual appearance of a cityscape. This cityscape is most apparent at a distance from the city. Yet the more you are nearing the city, the further the cityscape seems to move away from you. Rotterdam’s urbanity can never be grasped, the city-ness simply evaporates as one moves into the city centre. The city centre’s urban spectacle is a phantom. It is a city within a city.

The municipality has set out to achieve to improve the inner city public space and liveliness. Aiming for a business card status of the city centre. Public space ought to catalyze spatial developments. (Inner City vision, 2008)

Part of this strategy is also to built 3000 new dwellings in the city centre from 2008 till 2015. Furthermore, the aim is to keep young professionals in the city (City vision, 2007)
**Rotterdam is vacant**

While the economical motor and heart of the city is the harbor, the city centre does not have a hear or a point of gravitation. Yet a good performing city centre is the key in having a succesful city. Rotterdam’s city centre ought to be a motor, a catalyser, for the city in social, economical and spatial aspects.

**Wicked problems**

Where are the roots of the problem that make Rotterdam’s center under-performing city? The problems can be interpreted in many different ways and can therefore be addressed in many different ways. Understanding the problem depends on ones idea of solving it. It is a wicked-problem (Rittel, 1972)

Then how can the urbanism profession deal with this issue? Can spatial interventions of spatial policies give a solution to the under-performing center an on what terms and in what kind of timeframe? The municipality is lacking in financial needs for big spatial transformations and even if they would be performed, they cannot prove their immediate success or failure. Whether something will work or not can only be measured over the course of many years and even then other factors come into play which will never lead to an objective answer whether the solution, the spatial intervention, was good or bad. It might reveal the problem or the solution might even create new problems (Rittel, 1972).

So perhaps we have to set our high expectations a little bit back here and not focus to much on the truth of problem finding, which might not be the core business of urbanism, the actual causes of Rotterdam’s under-performing, but just try, like Rittel states, to improve some characteristics of the world where people live. Urbanism can do this by spatial interventions and strategies. This does not implicates merely a city-beautification yet also incorporates social-economical aspects.

Is there a way to attain results in a shorter time frame to improve Rotterdam’s centre? For this we perhaps have to move beyond the spatial profession of urbanism. Urbanism can mediate with other professional intervention in a techno-social-spatial manner. Because of the complexity of urban phenomena it is only likely that urbanism will be even more involved in other disciplines (Rocco, 2010). Thus in some manner Urbanism has to ‘loose ground.’ “Take ‘surroundings’, take ‘environment’. In times of interactive networks their meaning becomes fluid. No simple boundaries guard their integrity; private and public, spatial and virtual, living and innate, dichotomous thinking will not help us to describe or understand our current condition.” (Oosterman, 2011, 2).
Vitale metropool of sfeerloos

door en in Rotterdam

Zo’n alledaagse omweg kan bij voorkeur een winnende tocht zijn. In Rotterdam. Zelfs een ogenblikje ontspannen van het gewone leven kan een goed idee zijn,

Op de zondagochtend rond half elf, een beetje vooruit op de tijd van een zomerdag, zijn enkele fietsers aanwezig op de Grote Markt. Ze nemen hun fietsen aan de kant, onder de schilderachtige oude gebouwen, en beginnen een wandeling door de binnenstad. De straten zijn nog rustig, met een paar mensen op en af, maar de sfeer is al wel een beetje krulzaait.

In het centrum van de stad, het historische centrum, vinden ze de eerste eindpunten van hun route. Er zijn er veel, maar de meest bekende zijn natuurlijk de Grote Markt en het Schouwburgplein. De fietsers nemen de tijd om er een blik op te werpen en hebben een lach over het gekleurde uitziende gevelwerk van de gebouwen.

De wandeling voortdurend, komen ze bij het Wilhelminaplein. Hier bevindt zich het Koninklijk Museum van Schone Kunsten (KMSK), dat een van de meest bezochte musea van de stad is. De fietsers besluiten hier te stoppen en de wandeling voort te zetten. Het museum is geopend en de mensen lopen binnen en buiten om er een bezoek aan te brengen.

De wandeling gaat verder en de fietsers komen bij het Marker Huis. Hier kunnen ze genieten van de uitzicht op de Binnen Haven en het Kralingse Meerdijk. De fietsers nemen een foto van het prachtige uitzicht en besluiten hier hun wandeling af te maken.

De fietsers nemen hun fietsen weer aan de kant en laten de fietsroute achter zich. Ze hebben plezier gehad in de stad en de wandeling is een mooie manier om de straten van Rotterdam te verkennen.
ISSUE #1: VACANCY
Rotterdam has the highest GSI (Ground Space Index), meaning that there is much open space between buildings. The city is characterized by water, like Amsterdam, yet also by its heavy infrastructure, unlike Amsterdam.
After the WOII devastation The city was reconstructed as a modern (mono-)functional city. Office buildings were predominantly placed in the new city centre together with shopping facilities. The main street was rebuilt as a shopping street yet it got heavy competition from the ‘lijnbaan’ area. Over the years policy has created a shopping labyrinth in the city centre with two main branches reaching west.
The yellow dots represent shop locations in Rotterdam.

The cyan dots represent public locations in Rotterdam, such as cafés, restaurants and bars.
In the ‘Modern City’ there was little room for dwellings in the city centre while the neighborhood planning policy flourished for example in Pendrecht. This has created a vacuum in the city centre where hardly anybody is to be found after the last shops close their doors. Even though that Rotterdam is the second largest city in The Netherlands in terms of its inhabitants (Amsterdam is the biggest city) only about 5 percent of its inhabitants live in the city centre. In Amsterdam and Den Hague this figure is near the 10 percent. The Housing prices in Rotterdam are the lowest and the difference in prices between in or out of the city is the lowest as well compared with Amsterdam, Den Hague and Utrecht. Does this mean that there is something wrong with Rotterdam’s city centre? Can we grasp its liveliness?

The red dots represent industrial locations in Rotterdam.
The blue dots represent housing locations in Rotterdam.

The dark red dots represent lodging locations in Rotterdam.
City Population

Source: CBS 2010, image by author
Average House prices in Euro
City and city centre
Source: CBS 2010, image by author

City's non-active laborers in %
Source: CBS 2003, image by author
Busy leisure areas outside of the city centre

Vodafone cell phone activity in the weekends of May 2011 between 12 a.m. and 4 p.m. (Data source: Nederlandvanboven.nl, image by author)

crowed area
Emptiness within the city centre near the waterfront

Vodafone cell phone activity in the weekends of May 2011 between 12 a.m. and 4 p.m. (Data source: Nederlandstijden.nl, image by author)
ISSUE #2: STRUCTURE
When we look at the images below which are depicting the places to meet other people (e.g. restaurants, cafés, bars, clubs, parks and city squares) we see an overall lack of a direction or clustering. Only the catering services indicate there are certain streets that are predominantly vibrant places with people. However, this structure aligns with the shopping structure as we have seen earlier.
Facilities open at night

Meeting places at night time: inside
Rotterdam does however have a spatial hierarchy consisting of the Central district zone, Museum zone, Shopping zone, Blaak zone and de Kop van Zuid. These are all anchored to the two North-South axes de Westersingel and de Coolsingel.

De Coolsingel functions as the backbone of Rotterdam in terms of mobility and services. On a larger part de Coolsingel is connected to a network of Rotterdam-Den Hague, and a knowledge network.

The city centre’s services however are predominantly on the west side of the Coolsingel. The pre-war city centre around the Blaak area is therefore abandoned or neglected.
North-South Coolingel network

Region clusters
STRATEGY
**Rotterdam’s spatial strategy**

1. Rotterdam want to re-orientate the city center to the river de Maas.

2. Rotterdam want to become a Dynamic Metropolis again with much culture and activities and a high qualitative public space with a hierarchy of squares and boulevards.

3. Rotterdam wants to be modern and use technology as a liberating tool.

4. Rotterdam continues to aim for mixed-use zones, environment interaction, struggling for centrality and contemplating about the relationship of the harbour and the city.

(Source: Rotterdam Inner City Vision, 2008)

**Rotterdam’s social strategy**

Improving public space with the idea that this creates a better living environment so that:

- Rotterdam becomes a place for business, providing more workplaces

- Higher educated people will stay in Rotterdam after graduated

- More people want to live in the city centre

- More houses being built, stimulates economy and provides housing

(Source: COS, 2011)

**HOW TO STIMULATE LIFE IN THE CITY CENTRE?**
The graph below illustrates that public space has been decreasingly predominately characterized by necessary activities whereas in the 21st century public space is increasingly dominated by optional activities such as urban recreation. The city has shifted from being a medium for work-related daily life to become a medium for leisure and consumer related activities. Gehl (2006) distinguishes two types of leisure activities: the first one are passive activities such as participating in city life from a bench or a café (where I would like to add shopping as well) and secondly active activities such as sport activities.

**Design Laboratory**

The aim is to use mobile technologies as a tool in improve the pulsation of the city centre’s public domain. The public domain ought to be a place where all layers of society can come together and be involved in activities and situations. City recreation ought to be more than café visits and funshopping. Gehl’s graph must be enriched with another active urban recreation. Mobile technologies can empower citizens in creating their own events that stimulate city life. Rotterdam is to become a bottom-up event city.
Shopping

Funshopping makes up a big amount of the recreative time spend by citizens and city visitors. There were 973 shops in the city centre in 2010 (COS, 2011).

Public city structure: The shopping structure is reaching westward.
Top-down events
Leisure is mostly confined to the catering sector, shopping, tourist facilities and historical elements. Rotterdam as the self-proclaimed ‘event city’ uses events as a temporary pulsation of city life. But these events are mostly done in a top-down manner.
A new city leisure will be introduced in Rotterdam as an alternative for shopping leisure. This new city leisure will have its own network of spaces just like the other networks and can be described as a bottom-up event network. The spatial network for these social activities is derived from the Line of Fire (Brandgrens) of Rotterdam, the fire's extend that followed after the Second World war bombing of Rotterdam 14th May 1940. It was from this visual demarcation that the authorities planned the city in its mono-functional top-down manner. Yet now the Line of Fire sets the stage again for a city transformation, a bottom-up movement of citizens concerned with public space and its performance, taking action by taking responsibility over their collective spaces and programming and configuring them. The Line of Fire is taken for this symbolical dichotomy of top-down and bottom-up city policies.
Photo by Martijn Stroker - Flickr (edited by author)

Rotterdam after the bombing and the cleanup (Source: Flickr creative commons)
Since the bombing of the city centre in 1940, the city centre has been subject to constant change. Once there are two spatially different worlds, the old and the newly built, that met at the Line of Fire. Over the years much have changed and the spatial contrast are not visible everywhere. Despite that there are some rare places left that display Rotterdam’s multiple personalities, its schizophrenia.

The project aim is to transgress the symbolical value of the Line of Fire and enrich it with spatial value. Thus, cultural historical heritage will be used as an opportunity for inner city development. This will result in a 12km network of creative productivity.
SPATIAL CONCEPT
“The right to the city is far more than the individual liberty to access urban resources: it is a right to change ourselves by changing the city. It is, moreover, a common rather than an individual right since this transformation inevitable depends upon the exercise of a collective power to reshape the processes of urbanization. The freedom to make and remake our cities and ourselves is, I want to argue, one of the most precious yet most neglected of our human rights.” (Harvey: 2012:5)
INTRODUCING PUBLIC RESOURCES

Bottom-up programming of Vacant Rotterdam implies designing tools for citizens that allow them to animate public life by creating their own scenes and scenarios.
The new public resources blend in the existing resource landscape consisting of lampposts, clocks, mailboxes etc. What they have in common is that they set a certain action in motion, eg. a phone call or the reading of a letter by dark. Yet more than the others, the new public resources allow to be 'plugged-into' so they become an extension of our bodily capabilities in the public realm. We distinguish three types of plug-in modes. The first are personal objects that need some form of resource to enable an action. We could think of a wide variety of activities like from washing a car to charging a phone or hooking up a chainsaw with an electric wire to do some gardening. The second plug-in mode is characterized by its public characters, namely public furniture. Publicly donated and self-made furniture can gather around the resource nodes to catalyse the third plug-in mode to happen. The denouement of all resources and plug-in items is that events and situations will unfold. Whether it is small talk about an odd piece of art, a neighborhood meeting, a movie night or dance class, the line of fire will mediate between citizens intention and their actual act.
Plug-in personal items

Plug-in public furniture
In order to understand the city as a complete system we have to look at a screen (Latour, 1998)
The Line of Fire’s regional position

The Living Newspaper cuts through buildings and links neighborhoods

The Line of Fire’s city position

The Line of Fire’s regional position
DESIGN INTERVENTION
LED CREATIVE PRODUCTIVE LEISURE
STIMULATE THE CITY’S PULSATION BY
OPENING UP THE CITY FOR CITIZEN’S
PROGRAMMING AND CONFIGURATIONS OF
PUBLIC SPACE
Coolsingel City Axis

CONCEPT SCALING

from a single community domain to a disposition of community domains

Relationship of the Living Newspaper with de Boompjes
De Boompjes is one of Rotterdam’s City centre last major projects in revalitizing the public space. It is Rotterdam’s waterfront and it is one of the Top locations for transformation of the city centre and is the latest of these top locations for interventions (city vision, 2007). Besides that there are V.I.P. locations in the city, but they lack a coherent underlying spatial structure. (Patijn, 2007). The city has extensively worked outside the city centre with projects such as Prinseland, Nesselande and all its attention to South-Rotterdam. The Boompjes is the projects to focus again on revitalizing the motor of Rotterdam, its city centre and its economy, living and working environment, and leisure activities. De boompjes is on the municipality’s agenda for 2020/2030 (Stadsvisie, 2007)
North-South are the Coolsingel and the Westersingel with much urban program. They mainly connect the city with the river. The East-West axes are proposed to have more leisure program. Some sort of recreational landscape for the city centre with open-air program is proposed. (Inner-city vision, 2008). With all this in mind, De Boompjes will be the city centre’s main recreational area’s since all others are to far removed from the city centre. (with exception of the cultural quarter). However, current plans are very ambiguous and only speak of some sort of park- like green boulevard (Inner-city vision, 2008) Could de Boompjes be developed to be something greater than that and incorporate other city functions?

Source: Inner-city vision, 2008

Stepping stone from the shopping machine to the Kop van Zuid

Possible stepping stone at the Olympic Rotterdam 2028
DE BOOMPJES ‘POSITION

North-South accessibility

De boomjes and its context waterstad
Rotterdam 1940, devastated city

Rotterdam 1965, reconstruction, functional city

Rotterdam 2010, the city that will never be finished
De boompjes is part of Waterstad (blue color, image) and used to be divided from Landstad (white color, image) by the city’s embankment (yellow demarcation, image). Waterstad however remained a spatially distinct part of the city, a little island. The old formal city demarcation (the embankment) is still informally present in terms of a lack of services and activities in Waterstad. The embankment used to be aligned with the city’s main street but nowadays it functions almost as a highway. Can we improve the spatial characteristics of the city’s embankment by bringing back some services and activities that used to characterize it still was part of the city’s main street?
1850 - Land city and Water city

2010 - Rotterdam city centre

Post-war city’s embankment at de Boompjes
The city embankment’s primary function is that of being a traffic dyke.

Due to the omnipresent risk of flooding in The Netherlands the dyke at the Boompjes has to be raised. At the moment the dyke is 5.2m above N.A.P however for a secure future it is recommendable to raise the dyke up until it is climate proof. Taking in consideration possible erosion and waves then the height of the dyke ought to be 7.6m above N.A.P.
High diversity of functions in Water city

Public transport void at the boompjes
High diversity of functions in Water city

Public transport void at the boompjes

Traffic Island

Waterstad Island
De Boompjes' infrastructure is like its straitjacket. Waterstad in general is surrounded by major city traffic axis and the roads running over de Boompjes are hindering any quality public life. De Willemsbrug is also part of the straitjacket since it is too low to allow ships with heavy cargo to pass. European legislation obligates the Dutch to make the bridge 1.5m higher to improve the Rhine river's accessibility.
ACCESS AND PROGRAMME

Dwellings (336 appartmenets, mainly elderly)
Offices
Catering
Vacant

Accessibility of de Boompjes

Functions at de Boompjes
Vacant waterfront

Wind Rose indicating a strong wind
Baltimore team design (2001)
- Programmatic point of gravitation for leisure and amusement
- Representable image of Holland
  Creation of a Boompjes park
- Entire tunnel at de Boompjes
- Moving de Willemsbrug
  Improving slow mobility connections

Hamburg team design (2001)
- Waterwalk with pavilions along the waterfront
- Moving de Willemsbrug
- Raising the quay
**London team design (2001)**
- Transformation into a street
- Multifunctional ‘warehouses’
- Arcades along the water
- Improving green East-Weste route
- Introducing city gardens

**Barcelona team design (2001)**
- Programmatisch minimalistisch
- De leegte van een kade
- Voetgangersburg naar zuidelijk gelegen Noordererland
- Voortgangersbrug naar westelijk gelegen Willemplein
- Verbreiding van de kade
- Drijvende pontons met kleine paviljoens
- Tram
- Ondergronds parkeren
From a traffic dyke to a place to stay
Accessing the possibilities of a tunnel at the Boompjes

Version A: across the entire length of the Boompjes, estimated costs of 270 million euro
Version B: near de Verlengde Willemsbrug and de Willemsbrug, estimated costs of 125 million euro
Design process: plotting scene

1 Urban design
- Spatial structure: durable backbone
- Programme: actors, functions and elements

2 Design for Affordances
- Plots: Thematically programmed with potential uses
- Resources: utilized for creating situations

3 Urban API
Log-in medium rendering the place transparent
- Activity
- Policy

4 Hacking Scenes
Re-plot scenes and re-write the codes of conduct

5 Codes of conducts
- Potential users
- Rules: behaviour + responsibilities
- Organization model

Active citizenship

1 City participation
Experience the city

2 Community building
Form a collective around an issue of concern

3 City appropriation
Programme and configure the place within the guide lines of the codes of conduct.
De Boompjes becomes a window of display of the city where citizens can ‘fill up’ the empty plots which are present at de Boompjes with the use of mobile technologies.

De Boompjes becomes a place to be at home, at home in the city. It is the city’s public domain where there is a certain degree of collectiveness because of the gathering of collective around issues of concern at every plot. Therefore the Digital Main Street become a hetropia of diverences aligned in one street.

De Boompjes becomes a new place for alternative leisure activities. Historically seen it used to be a place to escape the hustle and bustle of the inner city and to gain new impressions at de Boompjes where ships from accross the world moored. Once again de Boompjes becomes a place to escape the hustle and bustle, but then of shopping bag ladies of the inner city, and to gain new experiences when strolling along all different plots while actively participating in programming and configuring them.

**Window of display**
Creative manifestation of people (e.g. expositions, workshops, art, lectures, games)

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**The Coolvangel axis**
Diversity of urban functions

**The Waterfront axis**
Leisure functions

**The Boompjes**
Micro urbanism
Creative productive leisure functions

A composition of overlapping elements that have programmatic uncertainty in which each element is part of many others

*De Boompjes in connection to the shopping machine*
De Boompjes is part of a recreational Maas embankment consisting of three parks: Het park in the city centre, de Oude Plantage and De Esch. Pedestrians can experience the Maas river during the whole route whereas car drivers are being constantly being diverted in proximity to the river. However, both the pedestrian (and cyclist for that matter) and the car driver move through different spatial zones with each its own spatial characteristics: e.g. vista’s, boulevard or path, and low or high embankment.

De Boompjes is one spatial entity nevertheless it is a zone with much spatial diversity since the zone is divided into plots and city rooms, small spatially defined zones.
De boompjes is devided into for spatially distinct ‘city-plots.’ All plots have a different thematic programme and some plots are sub-devided into ‘city-rooms’ that are less programmaticly indetermined.

Boompjes is Dutch for trees. The street name has been derived from its characteristic trees that throughout history have been placed longitudinal along the waterfront. The trees however will be placed Latitudinal, that is to say perpendicular to the water front, and so creating city-rooms and providing a windbreak.
BOOMPJES METAMORPHOSES TO BOCAGE

Tree screen
Transparent Screen of trees with an open crown
- Hackberry trees

Flat canopy
Pyramidal trees with overhanging branches
- Hackberry trees

Cathedral effect
Intertwining broad open crowns
- Hackberry trees

Fenced tree
Linear sequence of branches
- Hornbeam trees

Tree wall
Closely planted trees with dense crowns
- Hackberry trees

Vaulted canopy
Crowns meeting like a roof
- Hackberry trees
River embankment

Zones shaped by embankment

Pedestrian promenade

A composition of overlapping elements that have programmatic uncertainty in which each element is part of many others
The mobility mode and route is an experience filter.

Horizontal and vertical programme

Actors are involved in the pragmatic programmatic planning. Parties can associate themselves with city plots and city rooms provided that they support the plots’ and rooms’ resources.
Actors, functions and some possible programmes
Rotterdam becomes represented at de Boompjes. Rotterdam becomes Visible at de Boompjes.
Section A - Secret garden & catering room

Section B - Food courtyard

Section C - Workshop room
Section D - Resources room

Section E - Expo room
Section F - Work landscape

Section G - Media square
Detail 2 - Work landscape

Detail 1 - Secret garden

Detail 2 - Media square - stairs
Detail 2.1 - The bocage connects with the embankment

Detail 1.1 - The embankment with its wooden promenade and the flowers below

Detail 1.2 - Pavement and flowers
Through a mobile map plugin one can gain access to the Digital Boompjes and explore all the city rooms.

After logging in a map appears, depicting all the city rooms. One can scan the environment for happenings, location based annotations, people and trends.
Every situation can be zoomed and one can inquire information about it. This information is mostly social data harvested from multiple social media platforms.

Friends can see your presence and can introduce you to happenings and people. Content and experiences can easily be shared.
Content can be created that feed back in the overall system, making the Boompjes App a product of User Generated Content.
Possible uses
- Movie screening
- Performance
- Urban games
- Party event

Section G
Possible uses
- Recreation park
- (Business) meetings
- Conferences
- Work office
- Lunch room
Possible uses
Presentations
Gallery
Portfolios
Drinks
Players
Art (creative) school students and everybody wanting to display created objects

Rules
Citizens can subscribe for a m2 plot to display items.

Game master
Overall the Curator, generally through a voting system

Resources
Exhibition space and mobile artist studios
Possible uses
- Bike repair
- Car repair or wash
- Book borrowing
- Washing machine
- Green cars
- Rent a Tool
Possible uses
Social workshops
Dance courses
Computer courses
Immigration courses
Cultural and knowledge exchange
Possible uses
- Gardening
- Picnic
- School excursions
- Social programmes
- Local food supply
- Elderly leisure
**Codes of Conduct: Food Court**

**Players**
Elderly people living at de Boompjes, moreover everybody interested in the growth of food.

**Rules**
Citizens can subscribe for a food box to grow and maintain vegetables.

**Game master**
One appointed elderly living at de Boompjes.

**Resources**
Gardening tools and mobile devices for growth tips and statistics consultation.
Possible uses
Terrace
Dining&Wining
Ceremonies
Lounging
Horticulture lessons
EVALUATION

Changing roles
I think that in the next decade the role of designers and citizens in making their cities will be different than now. Instead of proposing large top-down strategies and design, designers ought to construct a open system in which citizens can act. However, this does not render the designer’s role obsolete. It is just a matter of dividing the tasks and responsibilities. Michel de Certeau (2002) distinguishes strategies from tactics. Whereas strategies are top-down devices at the hands of designers and policy makers, tactics are bottom-up devices at the hands of citizens. The designer still defines the key parameters of the space’s performance by top down strategies. He designs a system. Yet it is also imaginable that by citizens actions, the whole system of the place will evolve as well instead of only its performance. Used in the right way, these tactics can empower citizens. Citizens get the feeling that one can assert influence on one’s surroundings. However, the danger resides in always demanding that citizens will be creatively productive in asserting influence on one’s surroundings. This constant mode of creative production seemed to be Constant Nieuwenhuys’s stance in his New Babylon project (Wigley, 1998). This mode of creative productivity however can create an stimuli overload. Nietzsche (1968) warned about the ubiquitous sensory impression leading to men unlearning spontaneous action and merely reacting to stimuli from outside. The urban experience would thereby become to rational (Nietzsche, 1968).

Besides the liberating sense of freedom of asserting environmental influence and the danger residing in it, there is another aspect to environmental control. According to Bell, Green, Fisher and Baum (2001) a place triggers adaptation when it is not optimal. They claim that if there is no equilibrium between a place and its occupants, than the occupant reacts very strongly to the differences of this place. Differences are most experiences in the built environment (Sennett, 1992). This implies that a perfectly designed place triggers less spontaneous behaviour and urge to engage with a place than a less perfectly designed place. In short, the envisioned open system designed by the professional should be ‘not-so-perfect.’ As a designer, we can plot certain scenarios for a public space, but we can never really know what it will and can become.

New types of publicness
Tactics provide citizens a voice and competence in the city (Ford, 2005). This gives rise to creative productivity of city proposals. These proposals can stimulate city performance by events. Due to the prospected competing uses of space however citizens need to negotiate and collaborate. This renders the public space as a political sphere (Habermas, 1991). The city becomes a conductive medium in this process. The city becomes Hannah Arendt’s (1998) ‘world of things’ that unites people and information and action become a social exchange value. Besides directly executing the event, in the case of greater complexities the events can be digitally simulated for feedback before application.

Process
This thesis project is paradoxical in the sense that it argues the importance of a bottom-up citizen movement yet it imposes its design objective on a city in a top-down manner. As a result of this I can’t say that my design proposal for de Boompjes is the best solution for its contextual flaws and possibilities of the waterfront. The design is merely a hypothetical examination of what the Boompjes could look like if we imply the things we learned from the theory of mobile technologies. Therefore I have been more occupied with the place’s constraints for imposing my scheme of designers strategies than trying to found out what would really be suitable for that place. This is slightly at odds with the mainstream education I have followed during the
years which has always focussed on problem finding and solution generating. This is especially apparent in the Complex Cities studio which seems to predominantly focus on problem finding judged by the work of its students. Yet also in the lecture series Complex Cities has been set up as studio trying to understand complex cities and not necessarily making design interventions. There are many overlaps between the studio’s approach and the things I write about that mobile technologies render the city transparent. Through mobile technologies we can get a better understanding of the complex patterns and processes of cities.

In my thesis projects there is a constant search for balance between problem finding and solution generation on the one hand and on the other hand designing thematically a preferred reality. The power of this project is I think the narrative that has been developed from the interrelation of these two counterparts. In the one hand merely designing the transformation of the Boompjes would have been theoretically superficial and practically not very relevant as a student projects since it just adds to the stack of proposals already done by many other people. On the other hand if I had only specified to the theory I would have had trouble generating any designs. A possible outcome would then have been generic public interventions. To prove the possibilities and relevance of mobile technologies however this would not have been enough since it would not have engaged with any spatial and social contexts to which mobile technologies could give specifically local added value to the environment. I hope that this project can add something to the debate of mobile technologies and cities and that it can generate new insights on how to implement mobile technologies in the city.

TOWARDS A CRITICAL CHANGE IN THE URBAN EXPERIENCE


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