Surveillance in Urban Nightscapes
A STS-Informed Perspective

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Abstract In the project "Surveillance in Urban Nightscapes", surveillance practices during the night are investigated in Dutch city centers. Besides organizational surveillance technologies such as Cctv and bodycameras, bottom-up image technologies are invading this nightscape (Octv), in the form of mobile cameras. This shared footage affects both citizens who go for a night out – you never know when and where you might have been filmed - as well as organizational surveillance – the amount of sources for watching and reconstructing events that take place in the city centre increases. Theoretically, this can be seen as gradual change in the landscape of surveillance in (nightly) public spaces. This literature review tries to capture and combine different concepts from three disciplines: urban geography, surveillance and STS. The concluding remarks deal with key concepts derived from combinations of literature and tries to explain why and how a STS-informed analysis is necessary when investigating surveillance in urban nightscapes.

Keywords: Urban Nightscapes; Fear vs. Fantasy; Actor-network Theory; Panopticon; Participatory Surveillance.

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1. Introduction

Surveillance is a current theme and locus of attention in Western societies. Accompanying this growing awareness, an increase in both number and type of surveillance technologies can be witnessed. One reason for this state of affairs lies in the assumption that any evidence of a positive relation between surveillance technology and safety supports and encourages the deployment of surveillance technologies in a society. This agenda can be questioned, not only in terms of the necessity of developing technology for the sake of technology, but also in terms of the type of society we want to live in: what is a desirable future when it comes to surveillance

technology in society?

Combinations of new and existing surveillance technologies create new aims in the world of surveillance, such as the creation of "blanket" surveillance in public space, which means striving for a complete coverage of public space, or the ability to see everything all the time. Besides the technological challenges this brings about (challenges of aligning standards, formats, databases, code, storage times, hardware and so on), the goal of creating a totally covering surveillance network generates new problems in the boundary-negotiations of surveillance in public space. E.g. the problem of losing control (or oversight) on what types of technology are actually "surveilling" and who or what is surveilling who or what exactly. Combined with the emergence of more individualized information and communication technologies (ICT) in the same public spaces where surveillance technologies are in place, boundaries and relations between the surveillor and the surveilled become blurry.

By communicating to the public that one is being watched in city centers, and that the city upholds rules of conduct in certain areas, the public who wants to do harm is warned while the public who is there to have fun is reassured: it is a safe but exciting place. In the case of "old" surveillance technology such a Closed-Circuit Television (Cctv), there exists a sense of clear power relations that are at work: a government installs a camera and citizens in public space are the subject of surveillance for that camera. Cameras, as well as the surveillance signs, that can be encountered in public spaces communicate and inform on what is happening: "you are a citizen and as such you are being watched".

However, when this gaze becomes decentralized and somehow ubiquitous, as we can witness with emerging social and mobile media technologies, it becomes more difficult to understand who is watching who and why: power relations and the boundaries of surveillance now have a multiplicity of negotiation-points in public space. This paper aims to understand these negotiation-points theoretically by investigating how both humans and technologies shape surveillance practices in Dutch nightlife districts.

2 Nighttime Economies and Fear versus Fantasy

One of the topics of interest in urban geography is the city as a unit of analysis (see Ramadier 2004). Urban geography looks at how cities and citizens within cities shape and constitute the notion of publicness, and looks at how spaces become places and for whom. Variables that directly spring to mind are that of place and time: who uses which part of the city and at what time. Subsequently, one can think about different rhythms within a city; where certain places are used differently over time (during a day, a week or even during different seasons). The relevance of these no-

tions becomes clear when returning to the specific topic at hand: the nighttime economy. Summarized by the Surveillance in Urban Nightscapes team:

> In keeping with the shift toward consumption as the economic basis of cities, nightlife entertainment districts have come to play an increasingly important role in the fortunes of urban economies across Europe. For the most part these districts are located in city centers where bars, restaurants, discos, cinemas and clubs are spatially clustered. They often attract large numbers of nighttime visitors looking for fun, adventure and enjoyment. (van Liempt *et al.* 2011)

These districts (see fig. 1) are designated places of fun and attraction and as such they are important for the development of a city, or a particular part of a city. Where historically these districts might have sprung up "naturally", or at least accidentally, urban governments and city planners more and more try to steer and regulate the development of these districts. The rationale behind this attempt to regulate is to create "better" nighttime districts that are safe and attractive. The challenge for governments, city planners or architects is then to achieve this attractiveness for as many different crowds as possible. This is described in urban geography as "animation":

> According to Montgomery (1995), the animation of city centers can be stimulated by offering a varied diet of activities in public space. This is what is meant by the development of themed public space. The term "themed", particularly in association with "fantasy", bears connotations of theme parks. (van Melik *et al.* 2007, 28)

Fig. 1 – Nightlife districts

This animation of the city reflects in the emergence of top-down organized events where public spaces increasingly serve as venues for the arts and culture, typically for performances, festivals, concerts, parades or outdoor film shows. These developments appear to serve a common purpose: to attract people with discretionary income to the city centre by transforming it into a "Pleasure Dome" (Oosterman 1992). This purpose is deemed beneficial for different stakeholders in the city. As described by van Melik *et al.* (2007, 32), "investing in public space appears to be a lucrative option, not only for the government but for the business community as well".

Punter (1990) observed a growing awareness among property developers and investors that it can be in their own interest to invest in the quality of the public realm. Doing so would enhance both the value of the scheme and its long- term potential. The focus on safe and entertaining public spaces can thus partially be explained by the economic ambitions of the local government and other actors involved in the development of public space (see van Melik *et al.* 2007, 32). In other words, economic gain turns out to be a driving force behind the aim to create safer nightlife districts (Roberts and Eldridge 2009). The "trap" or the danger of over-regulating and hosting such events is that indeed city centers becomes subject of "disneyfication" (Warren 1994) where city centers become predictable and similar.

Another consequence of this gentrification, or even disneyfication, is that the emphasis is put too strongly on turning cities, and nighttime districts for that matter, into safe zones that attract similar audiences and similar venues (the safety of offering a recognizable city centre). Ritzer (1993) labelled this the "McDonaldisation of society". Citizens and tourists as visitors of these city centers, however, might also be looking for something else than a safe and recognizable place to spend their time (and money). Nye called this "risk-less risk" (Nye 1981), which means being able to be adventurous without really taking chances (see also Hannigan 1998, 71). In other words, excitement and even fear might not only be a side-effect of creating "safe and pleasant" nightlife districts, it might also be something that is sought for. As put by Ellin (2001, 879): "by extension, it is not a question of good or bad, safety or danger, pleasure or pain; there is fear but also fantasy, adventure and excitement".

This fear versus fantasy is a precarious balance, and one that is not solely shaped or controllable by local governments, city planners and so on. These citizens and visitors, the users of public space, also have a shaping role. Or, to quote van Melik *et al.* (2007, 30):

> Public spaces are not solely the products of planners and architects but are, as sociologist Henri Lefebvre (1990) argued, produced by and within a society. Other sociologists, from Weber to Giddens, also believed that cities, and thus urban life, can only be understood in relation to the wider societal context.

As argued here, the city is also shaped by others than planners and architects. For instance, the visitors of nighttime districts, who are also under influence of this wider societal context; or the type of international audience (the metropolitan - the globetrotter - the "young urban professional") that Western cities try to attract is becoming a large factor in the shaping of cities. This group reflects a homogeneous lifestyle and a set of norms and values that might prove to comprise more similarities in between cities than for instance, in between nationalities.

Maybe even more important to look into are the ways and methods in which this group is attracted and is attracting; their shaping role has become highly ICT dependent. With the emergence of (mobile) ICTs, every city and every activity has to be digitally present in order to attract attention, or to get noticed. This digitization of the city is in itself a very broad phenomenon, worthy of research in multiple disciplines (see Schwanen *et al.* 2008; Nagenborg *et al.* 2010). In light of city branding and tourism, urban geographers state:

With the expansion of Ict, it has become much easier to choose among the activities on offer. Online tourist information and announcements of forthcoming events can easily be found on the Internet. As personal mobility increases, even distant events come within reach. Furthermore, individualization has made life a "do-it-yourself' package" (van Melik *et al.* 2007, 7).

Where there indeed is "an app for everything" in current city centers, and both the elements of fear and fantasy are mediated through ICTs (safety apps, event apps, location-based services, and so on), emerging ICTs as a part of the city have become a unit of analysis.

3. The Concept of Nightscapes and Rhythms

So far, different stakeholders have been mentioned that, in some form, play a role in constituting the city at night. The assemblage of (amongst others) visitors, facilities and surveillance can be seen as a landscape. Chatterton and Hollands (2003) have combined these factors to coin a "nightscape", by which they mean the urban landscape at night. They describe this term as "socially constructed geographies of commercial nightlife activities".

Within a city center, there can be multiple nightscapes. Although these places tend to look more alike, as described earlier, still each nightscape is unique, due to aspects such as a specific setup of a city center, specific demographics in that city or sub-center of a city, and difference in local policy surrounding nighttime districts. These, and more, elements create specific rhythms of activities in these nightscapes. Drawing on a description by Schwanen *et al.* (2012), time-geography and notions of rhythm have been on the agenda since the 1970s:

> since the introduction of time- geography to the Anglophone world geographers have had a conceptual apparatus to think about rhythms (Crang 2001). Nonetheless, Parks and Thrift's (1979; 1980) chronogeography – directly inspired by time-geography – offered the first comprehensive treatment of rhythmicity in human geography. (Schwanen *et al.* 2012, 5)

Many approaches of dealing with time and rhythm have been developed in the field of urban geography. A first and obvious difference is that of day and night. Distinctions of time-spaces are made in urban geography where the urban night offers a "more intense emotional experiences and provides more opportunities for transgressive and anti-social behaviour, including public drunkenness and alcohol-related violence" (van Aalst *et al.* 2009, 3) compared to the daytime situation. The night allows for – and triggers – different behaviours in public space than the daytime.

Although this might seem obvious, the point here is that this changes the atmosphere and the "stage" in which things take place drastically (see fig. 2). Other rhythmic influences, or "pacemakers" in the nighttime economy can be found in factual aspects (opening and closing times, transportation facilities, the presence of a cash machine). In urban geography, empirical works has been done in this field:

Fig. 2 – Excesses in nightly public space

As described by Schwanen *et al.* (2012, 7):

> Roberts and Turner's (2005) descriptive study of Old Crompton Street in Soho, London, indicates that a nightlife district is indeed a polyrhythmic ensemble in which pedestrian activity, traffic, noise levels, instances of antisocial behaviour, and opening hours of facilities fluctuate and interact over a 24 hour period. Their work suggests that the opening times and availability of different nightlife facilities – bars, clubs, pavement cafés, etc – act as pacemakers for the number of visitors that can be observed on the street.

Besides these hard facts, there are also more 'soft' aspects that might have an influence on rhythms in the night, although these are hard to measure (reputation of a place, hype, "what friends do", accidental passing). Also notions of fear and un-safety can influence visitors to stay away, or visit a certain place. Paraphrasing Schwanen, several studies (Bromley *et al.* 2003; Schwanen *et al.* 2008) indicate that perceptions of crime, disorderliness, and un-safety increase over the course of the night and are among the factors which keep people from participating in the nighttime economy in the later hours (Schwanen *et al.* 2012, 8).

In conclusion, it can be stated that rhythms of a nighttime economy change over the course of a night and that this changing is instigated by both 'hard' and 'soft' facts, or instances.

4. Participation in the Nightscape

As described in the introduction, the sense, or understanding, of public space and publicness is at stake in these nightscapes. During these different rhythms of visitors in nightscapes, different ideas of what publicness means, and what is accepted behaviour, are negotiated. Where there exists an assumption that public space is accessible and open to anyone, this can be questioned by looking at the playing out of surveillance and publicness and the way this shapes a safe place for one, and a dangerous place for another at the same time. Or, as phrased in the original research proposal of the Surveillance in Urban Nightscapes project, "if forms of inequality and exclusion exist here, questions can be raised about the nature of public spaces and local public policies regarding such spaces at nighttime" (Schwanen *et al.*, 2012, 2069).

The question addressed here is if exclusion takes place in the nightscape. A reference is also made to local policies that have a shaping role on this inequality. However, it is not only policy and people that shape inequality. As mentioned earlier, in the nightscape, surveillance technologies also play a role. Where theoretical notions and concepts of surveillance will be discussed later on, here I want to point out that the

physical setup of the nightscape, but also different technological devices in that nightscape, can have an influence on who is participating in the nightscape and when.

Technologies and physical infrastructures are important means to serve the goal of creating "safer" (but not necessarily more equal) nightscapes. In putting these surveillance-means into practice via different channels, forms of exclusion might emerge:

> One consequence of the increased importance of the nighttime economy and the pervasive culture of fear surrounding nightlife districts has been the intensification of surveillance: police agents, private security firms and technologically advanced Cctv (Closed Circuit Television) systems aim to reduce crime and make visitors' experience of the nightlife area as pleasant as possible. The rationale underpinning this approach is that new visitors may be attracted to nightlife areas if they are safer and more secure. However, the implementation of enhanced security measures for the benefit of some visitors may entail the exclusion of other groups, who may be singled out by surveillance agents as constituting a potential risk on the basis of their race/ethnicity, dress, comportment, etc. These issues raise questions about the effects of surveillance practices on the public character of public spaces. (van Liempt *et al.* 2011)

Although this quote describes the issues of nightscapes and notions of publicness poignantly, these "enhanced security measures" are (as of yet) not defined. Where to find these places or touch-points where this negotiation and possible exclusion of the public takes place? One would expect that during busy times and in busy areas, experiences of fear in the public space would be less:

> Underlying the earlier mentioned "animation" approach is an assumption that crowded places are safer. Concentrations of people will presumably make it more likely for offenders to be seen and apprehended or even prevented from committing a crime. Now that mobile phones with cameras are ubiquitous, people will be more likely to participate in surveillance. (van Melik *et al.* 2007, 4)

Referring to the question of means, these authors point to an interesting observation; that people more and more carry a mobile phone, often equipped with one or multiple cameras. When local governments try to regulate these spaces and make them safer, there is the implicit or sometimes very explicit danger of promoting certain individuals or groups while excluding others (see Lyon 2003; Helms *et al.* 2007).

However, as earlier mentioned, it is not only local policy and government-owned means such as Cctv cameras that determine and shape the nightscape. Where we have already established that visitors have a large

role in defining the public in public space, this visitor also has access to means that can have an influence on that nightscapes (see Hardey 2007). These means, such as a mobile phone equipped with a camera, might not have been developed as a means for safety or surveillance as such, but does hold with it the potential to be used for these purposes in the nightscape. In how far both these government-owned "official" means and the potential means of visitors have an actual influence on the rhythms and behaviours of visitors, is an empirical question. Schwanen states:

> A strong visible presence of well-equipped surveillance agents may draw some people into the nighttime economy yet trigger suspicion in and deter others [...] The rhythmic presence of police officers, for instance, may reflect the anticipation, on the basis of past experiences, of undesired events and risks involving certain (types of) visitors at particular times and places during the night. (Schwanen *et al.* 2012, 8)

The suggestion made here is, based on past experiences with a certain rhythmicity in the nightscape, that presence of surveillance agents indeed already have a (strong) influence of who visits the nightscape and at what time.

Where this is a human agent, means such as Cctv cameras, and maybe more importantly, signs stating that Cctv cameras are present, as non-human agents also have an influence on visitors. Where the effect of Cctv presence is as of yet a point of (academic) debate (see Norris and Armstrong 1999; Hempel and Töpfer 2002), the challenge here is to look at the entire network of human- and non-human agents in the nightscape; to the entire landscape of surveillance.

To summarize, urban geography has introduced relevant concepts to analyse surveillance in urban nightscapes. First of all, this discipline points to the city, and especially city centers, as potentially rich research sites. Processes of gentrification and McDonaldisation lead to an increase in similarity of city centers. This leads to recognizable and controllable spaces, where surveillance is one of the means of control and regulation.

However, via the concept of rhythms, urban geography also shows that these places are under constant negotiation and flux. Where during the day a city centre might be aimed at shopping, the same district attracts restaurant public in the evening and clubbers in the night. Together with the different rhythmicalities of facilities during a day and a night, the message is that these places are never the same and never homogeneous; it is a constantly changing landscape.

The introduction of the dichotomy of fear versus fantasy shows the tension in these spaces at night; they have to be attractive yet safe in order to become a "thriving" nighttime economy for different stakeholders. One way of doing so is via surveillance and regulation.

The nighttime economy is made up of a complex network, dubbed a

"nightscape", a term referring to the urban landscape at night. The concept of the nightscape is used here to point out not only to human factors in nighttime economies, but also at technological means such as Cctv or mobile phones as shaping factors of urban landscapes at night. Scholars in Urban Geography as an academic discipline look at experiences in the nightscape of different groups of citizens and surveillance professionals. Surveillance studies can complement this view, because it is specifically focused on questions of surveillance and power relations in society.

5. The Panopticon as a Model for Thinking About Surveillance

Probably the most famous example – and model – to think about surveillance is the Panopticon (see fig. 3). Originally, it is a design for a prison, thought up by Jeremy Bentham. In short, the idea is to create the ultimate prison, where all cells are placed in a circle. All cells face each other, where the only visible blockade are the bars of the prison cell. In the middle of this circle of cells, there is a watchtower. The watcher in this tower can see every prisoner, at all times. This watchtower was to be built in such a way that the prisoners cannot see in which direction, or at what times the watcher is watching. Bentham's idea was that, because of this setup, prisoners would be under constant surveillance; because they cannot know when they are watched, they will have to assume that they are watched all the time (or take the chance). Besides this practical aspect, the main consequence of such a prison is that the prisoners "will stop wanting to do wrong" (Dorrestijn 2012, 30).

Fig. 3 – A prison based on the Panopticon design

Taking this prison as a diagram, Foucault projected this notion on other parts of society in analyzing power-relations and models of governing (Foucault 1975). When everybody is constantly watched, an internalization of control, of morals and values, will take place. Based on historical research, Foucault coined this type of society the disciplinary, or discipline society, where (in Western societies), we have seen a development to technocratic approaches to governing. Foucault's study on power consisted of formal and evident institutions, where the Panopticon was introduced as an "ideal" system to internalize the power struggle from institution to the individual.

Another French thinker responded to Foucault, stating that the object of study in "current" society (the 1980s) begged for a different analysis, where the routes, or "touch-points" of power between institutions and individuals are not so clear-cut anymore. Deleuze and Guattari in their publication *Milles Plateaux* (1987), made the observation that Foucauldian institutions no longer existed, at least not in the form as described by Foucault.

In comparing Foucault's and Deleuze's objects of study and "spaces" for study, one can state that they are closed (Foucault) versus open (Deleuze) spaces, leading to respectively a controlled and a disciplined society. Foucault used enclosed spaces as space of study, like the factory, the prison, or the hospital, where the object of study was the individual: the body. In order to make bodies docile, the use of surveillance (the Panopticon) internalizes power-struggles and the will to "do good". Through control at a distance and technologies of power, a chain of behaviour emerges: bodies (and minds) reform through daily regimes that are instigated by the ones in power.

With Deleuze, the object of study alters, due to the fact that society has altered: he introduces the dividual (Deleuze 1992). Where society is becoming fragmented, so does the individual; the panopticon becomes blurry and the individual is split up into pieces, where the "new" power of consumerism is demanding all kinds and types of attention from the citizen/consumer. In a Deleuzian society, it is not about making bodies docile anymore, but about moulding the consumer (who consists of a real body and a data-body, where the latter becomes more important). Where Foucault would talk about the shift in power from "taking life or let live" towards an administration of life (bio-power) "to foster or disallow life", Deleuze states that power has taken another shift, towards access.

Subsequently, Deleuzian places of study would be airports, borders: access points. The notion of the dividual and the turn to access points as object of study mark the point of a post-Foucauldian direction, and to a certain extent the beginning of "surveillance studies". Surveillance studies in a post-Foucauldian fashion thus emphasize the importance of looking not into the top-down institutions who are "disciplining" the visitors of these nightscapes, but rather look at interaction, or touch points of power and surveillance in that nightscape, that take place between humans and

technologies. The Deleuzian notion of the dividual allows us to look at individuals not as complete or uniform beings, rather as entities that have potentially many roles, or forms in that nightscape.

6. What Is There After Foucault? Questions in Surveillance Studies

Attempts have been made in surveillance studies to get away from the panopticon model. The idea of internalization of control via one-directional top-down technologies of surveillance did not seem to fit contemporary societies anymore, mainly because Foucault did not, and could not, include electronic layers of surveillance.

However, as David Lyon, a leading author in this field, describes in the book Theorizing Surveillance (2006, 4): "we cannot evade some interaction with the Panopticon, either historically, or in today's analyses of surveillance". This, he claims, is due to the ever-growing presence of "watching and being watched" via all kinds of new technologies or paradigms. Where the idea of the panopticon and the goals of creating docile bodies has spread from the prison to, for instance, the workplace and the government for reasons of productivity and efficiency managing, it also travelled to "softer" forms of entertainment and marketing. Via forms of voluntarily being watched in reality shows or YouTube, to be watched becomes a threshold, an advantage (a YouTube adagio of the more views the better). Lyon coins this "panopticommidy" (Lyon 2007), Whitaker the "participatory panopticon" (Whitaker 1999).

However inviting these notions may sound, they still lie within the framework of the panopticon and the power struggles between watcher and watched. Lyon states that we do not have to dismiss the idea of the panopticon, but that there are other sources of theory to be found. This can help in creating more balanced, and more informed analyses of current surveillance practices (or to reframe phenomena in society into theories of surveillance).

The problem with most panopticon-based analyses is that of Modernism and the dichotomy between nature and society, between humans and things. This splitting up of subject and object creates abstract entities or categories (institutions, the government), that hold the Power and exercise it upon the Subjects in Society. This perspective ignores any form of situatedness, context, or technology, for that matter.

On the contrary, Latour points out that we do not need to attach our explanations to either Object or Subject/Society. They are both part of the same central starting point: the collective that produces things and humans. Maybe there is more to things-in-themselves than we now give them credit for. On the other hand, the collectives we move ourselves in are maybe more interesting than the humans-amongst-themselves led us

to expect (Latour 1992).

If we look at humans and objects together as a collective, maybe that does tell another tale. The dimensions of these collectives make sure that new hybrids keep popping up: an increasing number of objects needs an increasing number of subjects. The nice aspects of science and technology are that they multiply the non-humans enrolled in the manufacturing of collectives and they make the community that we form with these beings a more intimate one. So in order for these collectives to endure, a different role is given to the hybrid, the quasi-object and the human; one that is not so distinct, but much more networked than thought before (Latour 1992).

Not that technologies of surveillance are not questioned or discussed, however, often this happens in such a way that a) technology is black-boxed ("the Internet" or "ID cards") without examining the inner workings and the "back-end" of these technologies, and b) user-technology relations and questions of remediation (Bolter and Grusin 2000) between user and technology are often neglected.

Fig. 4 – CCTV camera sign in Arnhem, The Netherlands

Scholars such as Dubbeld (2005) and Ball and Webster (2003) or Taekke (2011) have recently taken up these challenges within surveillance studies by drawing on Sts and media studies, respectively. Both these fields can help when looking into networks of surveillance in urban nightscapes, where more and more relations between surveillor – be it organisational surveillance (see Smith 2002; Taekke 2011) or another visitor – the surveilled visitor, and technologies emerge (f.i. mobile phones, urban screens, or ID cards).

These interactions between humans and technology are crucial in surveillance studies because it is in these interactions, rather than – for instance – only in regulation, that questions of power and government become crystallized. Rules and regulations in public space do play an important role in shaping the public nightscape, but I argue here that technologies of surveillance should be seen as forms or extensions of these rules and regulations as exemplified in the signs referring to the presence of Cctv cameras in public space (see fig. 4). Negotiations and adjustments on how to act (e.g. what is the "right" behaviour) in public space are more and more mediated by technologies, therefore the interactions between surveillance technologies and its users (police officers, visitors, bouncers) should be examined more closely.

7. The Surveillant Assemblage

Before examining what is negotiated and how in public space, some framing needs to be done as to how to approach this research without taking a normative stance that was often to be found in Foucault-based analyses. One way of doing this is to take a step back and look at cases of surveillance in a situated and contextual way. Haggerty and Ericson provide a heuristic tool here by drawing on Deleuze and Guattari's notion of an assemblage. By this they mean that:

> This assemblage operates by abstracting human bodies from their territorial settings and separating them into a series of discrete flows. These flows are then reassembled into distinct "data doubles" which can be scrutinized and targeted for intervention. In the process, we are witnessing a rhizomatic levelling of the hierarchy of surveillance, such that groups which were previously exempt from routine surveillance are now increasingly being monitored. (Haggerty and Ericson 2000, 2)

Moving away from Foucault's pre-given entities of those surveilling and the subjects of surveillance, these authors point out to a more recent development in (Western) societies, where we can see a quantitative turn towards citizens, or those being surveilled. The result is that parts of society that were not monitored before, now (can) become scrutiny of surveillance. Once your name, address, occupation or other types of information

are electronically stored, your records can travel. These flows of information are the "things" to be watched and the more spread your data is, in the more flows you are represented in.

Resonating with Deleuze's dividual and the notion of the data-double (Los 2006, 77) as a unit of analysis, this perspective also changes the way we have to look at governmentality and power relations. It is not the individual that needs to become visible and controlled, rather it is the data he or she represents that become the point-of-passage in forms of government (voting, travelling, securing, housing, etc.). The kind of data you represent has to match with a certain query in a database that respectively says "oke", or not. These databases form a rich source for potential surveillance (also dubbed dataveillance), especially when it becomes possible to connect different sources (or "flows") of data. Lyon calls these databases "leaky containers" (Lyon 2007).

New questions then emerge for surveillance studies because more and more responsibilities and decisions are moving towards databases and algorithms (think of automatic face-recognition or the automatic keyword analysis of Twitter-messages) , even to such an extent that surveillance agents base their decisions on what a database query returns. This decoupling of the individual and the data he or she represents implies also a new mode of thinking about public space and what a control-society, or a discipline society is, or even if these are the right terms to start with. For instance, who is accountable for making and sharing footage? And how complete is the user-generated footage or data collected?

Based on the notion of "databased society", Galloway, a new-media scholar, looks at protocol as the new means, or form, of power. With the birth of Internet and its (short) history, forms of power, of freedom and control, need re-visioning. In doing so, Galloway (2004) implicitly states that we are still in a Deleuzian control society, be it that the actors within this society may differ from earlier viewpoints. A periodization map is given (see fig. 5). Galloway claims here that the manager of control society, the distributed society, is protocol. This protocol can be found in computer algorithms and languages such as Html that decide whether a Website works or not, for instance. This protocol is not a normative agency; it is just there, once programmed by somebody and currently the responsibility of no one in particular.

Where Galloway continues by linking protocol to all sorts of new forms of government and bio-power (by linking protocol to Dna), the relevance here is the resonation of the notion of protocol with the context of surveillance practices, which are often (as we will see further on) highly protocolled environments, where human and machine have to operate in a rigid and strict setting. Responding on this rather dystopian view on the power of protocol and the non-role of humans, Chun (2006), a media and surveillance scholar, argues that indeed (computer) code as a language gains more influence, but she states that we will keep having a role in creating machines and their languages in the future. Her investigation into

fibre optics shows different views on what the Internet has been throughout its short history and what myths were created around it. Trying to understand the linkage between freedom and democracy to control, often this relation is constructed via techno-deterministic explanations. Looking at the technology and its effects within a (Western contemporary) democracy, people do not have a voice as individual, but are becoming abstractions, where the individual is disembodied and turned into a statistic of the crowd.

period	machine	diagram	manager
sovereign society	mechanical machines	centralization	hierarchy
disciplinary society	thermodynamic machines	decentralization	bureaucracy
control society	cybernetic machines	distribution	protocol

Fig. 5 – Power-diagram

Chun goes on demonstrating that the Internet does not, through its town halls or chat rooms or through its disembodiment, enable publicity as imagined by the Enlightenment nor do its protocols make its networks transparent. It does threaten a publicity that, as it makes irrelevant the distinction between public and private, enables something like democracy - an ideological polarization around control and freedom.

Summing up, the argument is about how the Internet and surrounding discourses are a reflection on our vulnerabilities. Chun is warning for both utopian and dystopian ideas (extreme perspectives might harm or affect democracy). The image of an Internet has changed since 9/11 attacks on the US, where this happy place, this space for sharing ideas and knowledge, has made way for an extreme paranoia, due to the melting of security with freedom (Chun 2006, 15).

8. 9/11 and New Places of Surveillance

The role of the Internet and new media on society, then, has been acknowledged and researched by both new media and surveillance scholars, who argue that the ways in which we govern "life" in our societies has rigorously changed since this new technology.

However, questions of legitimacy and the ever-growing monitoring on the Web have not been addressed yet. Indeed, as Chun has pointed out, the rapid growth of Deleuzian points of surveillance has spread widely af-

ter 9/11. Bigo (2006) has coined the notion of the BANopticon, in an attempt to conceptualize this event and what it did to notions of control, freedom and security. He points out that a series of events, of which the 9/11 attacks are the most prominent, have declared a "state of unease", and an American-imposed idea of global "in- security" (Bigo 2006, 49). This leads to rhetoric of "better safe than sorry" under which an increase of surveillance measures could take place. Also, this rhetoric paved the way for experimentation with new surveillance technologies, such as body-scanners in UK airports, and the accelerated introduction of the biometric passport and experiments with motion-tracking at Schiphol Airport, for instance (see van der Ploeg 2003, 2005).

Most of these measures could indeed be witnessed in Deleuzian places of access, such as airports and border controls. In how far this effect trickled down into daily life of our public space, is a question still unanswerable. What it did evoke was a renewed interest in the role of surveillance in social sorting (see Lyon 2003). The fear of the other and the difficulty for security services and politicians to distinguish them (Bigo 2006, 55) became pressing matters.

A question that rises then is to what extent this renewed focus on "the other" and processes of social sorting can be found in public nightscapes in the Netherlands. Is 9/11 still resonating in policy and practice, or have we fallen back into the old patterns of social sorting via surveillance technologies? And if indeed something has changed, how and where can we see this taking place?

A comment here is that in all the above, both in surveillance and new media theories on existing and emerging technologies, agency is placed with the technology, still dismissing parts of the lessons drawn from Sts. Technology never acts alone, and technology never comes "out of the blue": it too is developed by people with values, morals and ideas, and these values may partially be inscribed in the machine.

Moreover, when analysing processes of social sorting or exclusion, it can prove insightful to look into forms of resistance against, via or with (surveillance) technology. In using these technologies, as an end-user, or as an implicated actor (Clarke and Montini 1993), there is still room for negotiation and resistance: for "anti-programs" in use. The need to look into actual use becomes thus even more pressing, because it is during use that forms of resistance or anti-programs can be found.

Another challenge when looking into surveillance technologies is to remain as objective as possible and to not render all forms of surveillance technology as invasive and bad a priori. Are there accounts of positive or empowering aspects of visibility and surveillance to be found in surveillance technologies?

9. Empowering Perspectives and the Concept of Participatory Surveillance

One concept, and one author in particular, divert from the solely negative views and connotations on surveillance. Continuing on the topic of new media and surveillance, Albrechtslund argues that since the emergence of ubiquitous computing the panopticon should be reconsidered:

> The entertaining side of surveillance is a phenomenon worth studying in itself, and we expect that this type of study will contribute to an understanding of the multi-faceted nature of surveillance. (Albrechtslund and Dubbeld 2002, 3)

Rather than a place where one looks at many, several new media follow a logic of "many follow many", where visibility is often deliberately chosen. Mann et al. (2002) have coined this "sousveillance", where everybody is watching everybody. Albrechtslund looks at how surveillance is often used as a design principle in, for instance, online games and sports-tracking services. This dwells on the idea that surveillance as a design-principle is used in many contemporary games and installations. Besides a fun aspect, these games can also inform us about how a (part of) society reflects on notions of surveillance.

Going further, Albrechtslund coins the term "participatory surveillance". Many online environments, especially social-network-sites, serve as interesting places to study, since many beliefs, ideas and opinions are shared here. Boyd (2011) and Ellison (2007) even state that social networking sites are dominating online activities today. Where I have strong oppositions to this statement, for now it suffices to state that these places are indeed new arenas for surveillance. However, taking the perspective of the user, this is not necessarily a negative thing. As Albrechtslund states:

> Characteristic of online social networking is the sharing of activities, preferences, beliefs, etc. to socialize. I argue that this practice of self-surveillance cannot be adequately described within the framework of a hierarchical understanding of surveillance. Rather, online social networking seems to introduce a participatory approach to surveillance, which can empower – and not necessarily violate – the user. (Albrechtslund 2008, Introduction)

Participating via, for instance, sharing, responding or liking engages users into these platforms, where the idea of being seen and being "followed" is a precondition rather than a setback. The added value of this approach is a user-centered perspective on surveillance. Together with boyd (2011), this turn makes possible another type of analysis of surveillance, where tracing users' steps and activities reveals another experience of surveillance and visibility. On the question why this visibility is so im-

portant to these users, Koskela (2004) for instance, pointed out that exhibitionism such as shown on social networks sites, or Tv shows, can work empowering. By throwing everything into public arenas, this "visibility becomes a tool of power that can be used to rebel against the shame associated with not being private about certain things. Thus, exhibitionism is liberating, because it represents a refusal to be humble" (Koskela 2004, 210).

The focus in many of these practices is not on knowing who actually is watching, since many online audiences are anonymous. Rather, it is the act of sharing, of "self-broadcasting" that creates the possibility for others in the network to see, read and respond to self-made content. However, if there is no audience, there probably will be silence: sharing is something social. In terms of thinking about surveillance, this implies that from this perspective, users of social network sites want to be watched; it can be empowering (see also Shilton 2010). On the act of sharing, Albrechtslund states:

> Accordingly, the role of sharing should not be underestimated, as the personal information people share – profiles, activities, beliefs, whereabouts, status, preferences, etc. – represent a level of communication that neither has to be told, nor has to be asked for. It is just "out there", untold and unasked, but something that is part of the socializing in mediated publics. (Albrechtslund 2008)

Here, an important point is made, namely that this sharing is an act that does not necessarily lead to a pre-thought consequence or reaction. It is "just out there", where every self- posted media outlet on a social network site will probably have a temporal aspect and will linger for a while before being forgotten. Places such as Facebook did introduce a timeline to make history-browsing possible. This makes surveillance stretchable over time (e.g. it adds a temporal aspect to these mediated publics).

Although the concept of participatory surveillance is valuable, a critique on boyd and Albrechtslund here is that their location of analysis remains within the digital realm and that these realms are not completely public. They too can be seen as walled gardens (Bortoli *et al.* 2009), that create a "participation divide" (Hargittai and Walejko 2008); only those who have the means to be inside the walls of social network sites can actually participate in these realms. I agree with boyd that these places do pose new questions for surveillance and identities. However, it is when these mediated publics start interfering with physical and real publics, that the consequences of social media sites become visible.

In his book Social media as surveillance, Trottier (2012) looks into these situations, by looking at the microcosmos of a university campus under the influence of Facebook. Where at first this is an empowering tool for students, campus security starts using the medium as well, thereby linking a "safe" place for students into a tool for surveillance and con-

trol over student-behaviour. This example shows that online participation is not necessarily empowering when the actions of sharing something have a direct consequence for one's direct physical living space. When pointing out to privacy issues, the usual response is that "you chose to be on Facebook, so you could have known". This type of "publicness-by-default" can be framed as nudge politics (Thaler and Sunstein 2008), where one is part of a system, or of a set of choices, unless the participant or user actively opts out. It can be questioned if this is really the responsibility of the end-user of for instance Facebook, or whether that part of this responsibility lies in how the software is designed and presents the user with choices.

Although both surveillance studies and urban geography acknowledge the role of Cctv, mobile phones and social media as a part of public nighttime experiences, the heuristic tools used in this scholarship tend to consider technological artefacts as black-boxed. A deep analysis of the nightscapes should be able to look at how surveillance technologies exert agency. The question of how both humans and technologies shape surveillance practices demands to also look into surveillance technologies. In order to include these technologies and the networks of surveillance technologies into my analysis, a turn is made to Science and Technology Studies.

10. Science and Technology Studies: Accounting for Things

STS looks at how new facts and innovations come into being, how they are framed and consequently how they alter existing views and practices in society. This latter notion is relevant because it points out that new technologies are never entering society blank or objective and that once they are here, they are therefore not neutral (Irwin and Wynne 2004). For instance, the introduction of a body-worn police camera changes the way of working for a police-officer; it might also change the way nightscape visitors think about cameras, or the legitimacy of filming in public space.

By only looking at the interaction between humans and the social (as often done in the disciplines such as urban geography and amongst policymakers), the material world and the influence of things, in all kinds of processes and events, is dismissed (as being "merely" soulless objects). However, recalling the questions of publicness as stated in the introduction as well as the notions of public nightscapes as posed by urban geography, the objects in this public space then are not just soulless objects, but rather, they can be active in shaping these nightscapes.

As in the example of the police-worn body camera, often technologies introduced in these nightscapes are contested; questions of surveillance, privacy and data protection, for example, make these technologies in

public spaces highly political. In that sense, the non-neutrality of technology as pointed out in STS becomes even more apparent in this context (see Radder 1998 on the politics of STS). Connecting politics in and of public space to artifacts or objects is not uncontested. An example worth noting that surrounds the issue of politics and objects is that of Winner's bridge. The case is that a bridge in lower Manhattan is seemingly designed is such a way that public buses cannot pass. The road that surpasses the bridge lead to a beach. By designing the bridge in this manner, only private cars could reach the beach, thus excluding the public that was dependent on transport by bus. This evokes social exclusion (see Winner 1980).

Another author that contributed in a more fundamental manner to this issue is Latour. He argues that perhaps we need a shift towards the politics of things in order to re-map politics. This can be achieved via the introduction of *Dingpolitik* (as opposed to Realpolitik), combined with a set of experiments to research the following question: "what would object-oriented democracy look like?" (Latour 2005). He states that objects trigger the connections of public issues: "Each object gathers around itself a different assembly of relevant parties" (Latour 2005), and triggers discussion. All these objects, with their issues, are binding us into a "public space". Where this has up to now never been looked into as being political, objects are.

Latour continues by strongly criticizing political philosophy due to its "strong object-avoidance tendency". While always describing the how, and the procedures around the issue, when it comes down to what the issue is, political philosophy has remained silent throughout history about things. Within the *res publica*, the only focus until now has been on the procedures, not on the things that allow for politics, the "matters that matter" (Latour 2005).

Latour continues by arguing that there is a need to investigate how and through what medium the matters of concern are discussed. How are all involved parties, people and things assembled? While one might claim that the actors in this setting are the human beings organizing this assembly, Latour claims that the influence of things have an even role in creating this assembly. However, this brings in another problem:

> to assemble is one thing; to represent to the eyes and ears of those assembled what is at stake is another. An object-oriented democracy should be concerned as much by the procedure to detect the relevant parties as to the methods to bring into the centre of debate the proof of what it is to be debated (Latour 2005, 8)

He also points out how the *Ding* has been around for centuries, referring to "thingmen" dating back from old northern peoples. It has always been things that brought people together, because things divide. Therefore it is time to go back to things.

11. Actor-Network Theory and the Concept of Script

The perspective of tracing the networks of humans and objects has become an important topic of research in STS over the past decade. Especially in the actor-network theory (ANT) approach it is stressed that if actors and circulation are followed, rather than pre-positioned roles or topologies of the social or the technical, new insights can be gained on how realities are shaped.

Where ANT is faithful to ethno-methods (Latour 1999), it is a way for social science to learn from the actors involved. By studying both human and non-human actors and their constant constitution of temporal hybrids with specific roles and actions, the subject of study can be described in terms of networks. Specifically mentioning that the term network here stems from pre- Internet notions, a network can be explained as trails or paths between different nodes in a network, whereby information, or that to-be-transferred alters through every node. These translations happen because every node in a network mediates information, e.g. receives, interprets, and sends. This mediation makes the notion of a network "pre-Internet", precisely because it alters information (rather than information being identically accessible with every mouse-click). The nodes that alter can be human, or non-human; either way they are actors and actants in this network. When engaging upon such a research trail, often we will find interaction between humans and non-humans, both actively mediating. A method for describing these interactions and how these mediations are shaped, can be found in the concept of "script".

The notion of script can be explained as a way to describe these interactions in terms of a film or theatre script: artifacts have certain actions inscribed in them, that tell users how to act with it. The added value of this approach is that it allows for reflection on artifacts and users beyond the functional (Verbeek 2006). This opens up space for moral reflections on user-artifacts and their inscriptions of artifacts. One could reason that an artifact is made my humans, and as such, the developer of this artifact is somehow inscribing his or her morality into the artifact.

Latour describes this inscription process in terms of delegation: designers delegate specific responsibilities to artifacts. When using these artifacts, end users are influenced by these inscriptions in their actions. In other words, these artifacts alter user-behaviour (see Oudshoorn and Pinch 2003; Neven 2010; Tromp *et al.* 2011).

If we return to ANT, this would mean that in the mediation process of information flowing from one node of the network to another, the mediating actor is also being altered in a way. The consequences for the network are that nodes of the network are never constant; they are left in a different state each and every time mediation takes place. Taking a closer look at these nodes, then, can inform the researcher of what and how the nodes change as a result of mediation.

Latour terms these nodes hybrid collectives: a set of human and non-human actors in a certain place and a certain time that create a unique set of values or possibilities. These hybrid collectives keep popping up due to a more widespread saturation of non-humans (things) that we have to interact with. The added value of naming these hybrid collectives is that it allows for thinking about human-thing-relations, diverting and ignoring the ever-existing subject-object dichotomy. Via these hybrid collectives, alternative forms emerge, that allow for new social reflections of certain phenomena.

Can we understand surveillance practices mediated by Cctv or by a mobile camera via the concept of these hybrid collectives? For instance, the nightscape visitor that walks around with a mobile camera can be seen as such a hybrid; due to the combination of human and mobile phone camera, new action possibilities occur (such as sharing the pictures of a night out with friends). Such descriptions of different distinguishable hybrid collectives can serve the purpose of mapping these action possibilities: what kind of actions take place in that nightscape that became possibilities due to this particular hybrid collective?

An Ant analysis can reveal different collectives and their shaping role, their agency, in the nightscape. This agency can be explained as how these hybrid collectives act, and how responsibilities are delegated between humans and technology within these hybrid collectives (see Akrich 1992) However, a challenge when thinking about hybrids in relation to surveillance- related technology is that these technologies might affect people beyond the direct end-user of an Ict. In short, the context and thereby the multiplicity of use have to be taken into account. What is meant here is that, for example, the end user of a Cctv camera is the Cctv operator in a distant room. The visitor of the nightscape that alters his or her behaviour due to the Cctv camera that is in place, is in a way also a "user" of this system. Clarke (1998, 267) has introduced the notion of "implicated actor" to address these types of use of a technology. Oudshoorn has proposed the notion of "multiple users" to address the problem of incorporating more that only the user and the designer in analysing new (ICT) technologies, but rather to look at "the distribution of power among the multiple actors involved in socio-technical networks" (Oudshoorn and Pinch 2003, 7) as an empirical question.

From STS we know that technologies are never neutral. Moreover, Latour explains us that artifacts have a role in negotiations, in politics. This becomes relevant when looking at surveillance technology, since these technologies themselves are often introduced as politicized artifacts.

Furthermore, another insight drawn from STS that serves a purpose in analyzing surveillance in public spaces is the notion of networks. When investigating existing or emerging technologies, the networks of development and use, but also the networks of other technologies that surround the technology-under-investigation, play a role in the shaping of that technology in society.

On the question about how to research emerging surveillance technologies, STS can provide a perspective on how user practices and existing networks of human and non-human actors are affected by the new technology. Concepts of script and delegation of responsibilities between human and technology are central here. New technology-user configurations can be called hybrid collectives and can be found in, for instance, a visitor of the nightscape who is using a mobile phone camera, or a police officer who is using a bodycamera.

Besides being single user-technology configurations, the use of these technologies in public space also affect others. When it comes to visual technologies in relations to surveillance, it can be stated that these hybrids are not only new watchers, they are also being watched. Where the act of filming might constitute an active role for watchers in shaping surveillance, they might at the same time be subject of a Cctv camera, or another visitor using a mobile phone camera. The roles of these hybrids then are multiple: they can be seen as both users and implicated actors of surveillance technologies. These technologies have a strong normative aspect, because (we assume) that they do articulate and mediate processes of exclusion and social sorting in public space.

12. Discussion

12.1. Surveillance Studies Still Black-box Technology by Following Technological Trends

In surveillance studies, technology evidently plays a crucial role. In order to govern a society, some form or method is needed for communication between government and the governed, however this relation is shaped (mutual, equal, hierarchical, rhyzomatic, and so on). Agreements have to be mediated in some form or another. Foucault uses different historical examples such as dealing with the plague, where the local governing actor in that situation had to rely on a wall to separate the sick from the healthy. (Foucault 2003).

Foucault does dives into the technology as an actor in his analysis (in a much more elaborate way than I am displaying here), however, in contemporary surveillance studies, as stated earlier, technology is often taken for granted as a shaping influence, or it is at least black-boxed. Drawing on the terminology that stems from Sts, black-boxing in this case means that technology is discussed as a "box", not questioning the networks this technology act in, nor the inscribed values, meanings and intended goals of the technology.

A common reason for black-boxing is the assumption that what technology does, or how it works, is static and common knowledge. In surveillance studies, however, where questions of power are often played out

via contemporary technologies in society (see Lyon 2003 on new technologies and social sorting; Elmer 2003 on new media and the panopticon; Koskela 2004 on high-tech surveillance means), it would seem obvious that the key to understanding current surveillance practices is to investigate these technologies in their detailed forms of agency.

Another aspect is that these technologies need to be looked at in context. For instance Facebook is crucially different from Myspace, a mobile phone camera serves other logics than that of a bodycamera. Ant can prove insightful when investigating local networks of humans and things in public nightscapes. This also entails turning to a myriad of users of surveillance (related) technologies in nightly public space.

12.2. Surveillance Studies, Users and Post-Deleuzian Theory

Another issue that pops up when drawing on Surveillance Studies, is the little attention for users. As stated earlier, some authors such as boyd and Albrechtslund have taken a user-perspective in their analysis of surveillance. However, I argue that taking the perspective of end-users of surveillance technology is not enough; drawing on (Sts-informed) users studies could help expand the analysis of surveillance technology by looking into how users and technology have a mutually shaping role.

When it comes to questions of governance and how public spaces are shaped by debates or controversies, a trend in many disciplines such as surveillance studies and media studies is to go into quantitative analysis and "big data" in order to find insights by processing large datasets. Large datasets, however, cannot capture the granularity and resolution often required when it comes to a situated and contextualized analysis of a surveillant assemblage. To give an example, it would be possible to measure how many "tweets" were sent on a Friday evening in the centre of Rotterdam between 22:00 and 06:00. Then we could even show the peaks and gaps and thereby conclude that around 00:30 there was something happening in the nightscape because there was a peak in tweets. Without turning this into a methodological debate, it becomes clear that when we want to know how Twitter influences the nightscape, it might provide more fruitful to follow a couple of Twitter users who go out in a large city and see how, when and why they actually use Twitter when going out and if they relate this to any practices of surveillance or feelings of safety.

In this paper I tried to literally ground surveillance studies by taking the latter approach: following actors and actants in the nightscape. Looking at qualitative, ethnomethod-informed and small-sampled accounts of what actually takes place in the nightscape could prove to be more useful when the goal is about reflecting on local stories and contexts of surveillance.

12.3. Surveillance Studies Speak in Messy Metaphors

A definition of "surveillance technology" is hard to provide, and has often changed over time. Most analyses of surveillance societies and their accompanying technologies (or vice versa) start with the example of Jeremy Bentham's prison-design: the Panopticon (Bentham 1791; Foucault 1975).

The panopticon is used by Foucault not only as an example but rather as a metaphor to explain other developments in society. As discussed above this metaphor seems to have lost its relevance in explaining and understanding current changes in surveillance. A more recent metaphor introduced in surveillance studies is the data double (Los 2006; Lyon 2007), a term that points towards the (digital) databased identity of citizens (Whitson and Haggerty 2008).

Where the database is not particularly new, since the digitization of records it has expanded enormously. This resulted in a "double" identity of citizens in the digital realm. This metaphor of the data double invigorates and resonates in recent analyses of security, privacy and society. Here, the data double is clearly linked to online – or digital – existence in relation to its physical counterpart, and the tension between the two. In light of surveillance, issues of representation and access control arise, where mutual proof is constantly needed to confirm a real person's identity with its data double (think of biometric passports, public transport cards, social media logins and passwords and so on). However, records on citizens are far from new, and in that respect, the data-double has been around since the introduction of the first record-keeping of citizens, or archive (see Foucault 1970; Star 1999). In that sense, the notion of the data double remains vague.

The point here is that rather than referring to messy metaphors when it comes to surveillance technologies, it might prove more fruitful to look into the implications of surveillance technologies in urban nightscapes and the different actors who exercise power upon subjects via certain (surveillance) technologies (see Hier 2002; Jespersen *et al.* 2007). Unlike current trends in surveillance studies to look into big data, another angle could be to take a contextual, user- and technology- oriented approach in analysing surveillant assemblages.

If indeed society has become more complex and more technologically mediated via Icts, the concept of the surveillant assemblage provides a fruitful heuristic tool to explain how practices and places of surveillance are not singular or uni-directional. Instead, the complex networks of surveillance actors has to be taken into account. Where this resonates with Sts and Ant, a difference with surveillance studies can be found in normativity: surveillance technologies explicitly deal with (the negotiation of) power-relations in society.

Besides critical stances on post 9/11-spreading of surveillance means in society, Albrechtslund's notion of participatory surveillance also sheds

light on the positive aspects of surveillance in society. The concept of participation and sharing is especially relevant because these are actions with technology that also emerge in the micro-site of the Dutch surveillance nightscapes and as such might be a driving force of alteration of the landscape of surveillance in public spaces. My contribution to studies of surveillance in urban nightscapes lies in the turn towards use practices of emerging surveillance technology to see how these power relations of surveillance are negotiated (Albrechtslund 2005) between nightscape visitors, police officers, mobile phones and Cctv cameras.

13. Conclusions

In order to understand changes in surveillance practices in urban nightscapes, I have approached this nightscape theoretically as a place where surveillance, safety and the concept of public space are under constant negotiations between humans and technologies. Hereby my specific interest lies in how landscapes of surveillance are changing due to emerging technologies.

City centers at night (nighttime economies) are places where fear and fantasy come together in an explicit manner. Dubbed "nightscapes", these landscapes at night are contested, thus providing an interesting site for research. These nightscapes are places where surveillance is fore-fronted as a means to create safe and pleasant public spaces. Rather than looking at a-priori roles or actors that are responsible for this safety through surveillance, I have turned to surveillance practices in order to see how surveillance in urban nightscapes is shaped, thereby realizing that this nightscape is constantly changing due to rhythmical changes of humans and technologies present in these spaces.

Inspired by Deleuze, I have conceptualized differences in surveillance of urban nightscapes in terms of differences in local surveillant assemblages. Following insights of STS and notions of the politics of things as explained by Latour, this article suggests looking into how norms and values are inscribed in these technologies by developers or designers.

In parallel, a turn to user practices is needed in order to see how surveillance crystallizes via practices of the interactions between human and technology. Incorporating both humans and technology in the analysis, I propose to use Ant and the notion of hybrid collectives to allow the researcher to look at how responsibilities are distributed between humans and technologies in surveillance practices. New hybrid collectives such as the mobile phone-citizen hybrid and the police-worn bodycamera hybrid might challenge or alter existing surveillance practices in nightscapes.

The users of emerging technologies such as mobile ICTs not only form new hybrids, they are active users that have a shaping role on the surveillance landscape and they are also implicated actors of other tech-

nologies. Becoming both watcher and watched, active user and implicated actor, their roles in the nightscape are hybrid and multiple. Linking these insights to post-Foucauldian theories of surveillance, it becomes possible to see what kinds or types of surveillance are expressed in these practices.

Finally, via the notion of participatory surveillance, both negative and positive sides of these new hybrids can be explained. Moving from an analytic stance towards an interventionist one, the former steps allow for grounded speculation on futures of surveillance in nightscapes. By analyzing emerging surveillance technologies, questions of good surveillance could be addressed, as well.

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