Care of the Self and Discipline in Smart Cities Sensors in Singapore

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Abstract

What is the meaning of the 'care of the self' in Sensor Societies such as Singapore, where discipline and control seem to come first? To assess sensoring and behaviour control in Smart Cities Michel Foucault's pivotal work on surveillance and power appears is still highly relevant. An up-to-date application of Foucault's work for surveillance studies needs to also take into consideration his later work on the care of the self, and revisit his work on power. This amounts to a framework of surveillance pulled apart and inside out: from top-down hierarchical surveillance to lateral surveillance among people, and even to self-surveillance. Interwoven with this theoretical development is a reportage about the experience of walking the streets of Singapore with an eye to emerging forms of self-care in this situation of ubiquitous surveillance.

Keywords

Singapore, sensor society, self-care, Foucault, surveillance theory

Introduction

This text discusses the value of Michel Foucault's work for a contemporary ethics of technology, especially focusing on surveillance and behaviour control. In our era of smart and connected technologies, the character of what used to be called surveillance is changing. Whereas power relations between citizens and the state used to be a principal concern, nowadays GAFAMA (as French futurologist and technology critic Joël de Rosnay refers to the Internet giants Google, Apple, Facebook, Amazon, and Ali Baba), may have a bigger controlling impact on our lives than the state. Moreover, people record and share pictures and data about and among each other just as much. The emblematic technology associated with surveillance during the past decades was the 'camera' (CCTV). In the smart world the 'sensor' may take over this pivotal role.

For a case study we refer to Singapore as a forerunner of what we label a 'Sensor Society'. Singapore is a frontrunner in developing an urban Sensor Society in which movement, access, and interaction are mediated and controlled by sensors. Passes, chips, and biometric data determine who moves when in the city, determine who is admitted to enjoy its functions and benefits, and determine who delivers a viable contribution to the city. Current trends and developments in urbanism, which fall under the label of 'Smart City', have created a tension between discipline and self-care.

In this chapter we develop a critique of the sensor society that acknowledges both the disciplinary tendencies and (emerging) forms of self-care. What is the meaning of the 'care of the self' in Sensor Societies such as Singapore, where 'discipline' and 'control' seem to come first?

Our approach and already the research questions about self-care and discipline in a smart city employ and elaborate especially the work of Michel Foucault (1926-1984). This is appropriate for a number of reasons. Firstly, Foucault is an important thinker on the 'care of the self'. (Obviously, therefore, his work is a recurrent reference in this collection on the care of the self and the city.) However, Foucault was known even more because of his work about 'disciplinary power', which is a key reference in surveillance studies, and continues to be relevant with today's advent of smart cities. This makes his work a starting point for research into control and care of the self in Singapore.

The obvious starting point to benefit from Foucault's work for assessing the impact of technology is found in his work on disciplinary power and surveillance, with his famous discussion of the Panopticon. However, his later work on ethics as care of the self is a fascinating and essential supplement for understanding how humans conduct their lives through critical engagement with external conditions (see also Dorrestijn 2012a; 2012b). The notion of 'the government of ourselves and others', from the last lectures of Foucault (2011; 2012), indicates his simultaneous concern for practices of power and of ethical self-care.

A twofold approach, encompassing disciplinary power and self-care, is very useful for assessing the ambivalent impact of technology in our culture, meaning both empowerment and suppression. This recombination of power and self-care extends and augments the relevance of Foucault's work for assessing technologies and issues of surveillance and power in the light of contemporary technical and societal developments. As a result, our critical attention should extend from privacy and surveillance to network technology driven sensoring-governing relationships, between people and with commercial parties as much as with the state.

This text will deliver an ethical discussion of the sensor society, with a focus on Foucault's thought. We are aware that a more complete discussion would reckon with different approaches to the 'good life', 'autonomy', and 'authenticity' that colour Western and Eastern ethics to really apprehend the acceptance and functioning of sensoring in Singapore. Another interesting topic that we cannot cover is the relationship between Foucault's take on the care of the self and the Asian tradition of practices of the self. There certainly is a link between the self practices in Asian philosophy and a premodern tradition in the West that Foucault wants to revive.

In the following text, we have chosen another approach. In 2016 one of the authors, Joost Alleblas, made a study trip with students and staff to Singapore. We will juxtapose two forms of text: the impressions of being in Singapore and walking its streets, and a critical analysis of sensors from within a certain tradition in surveillance studies that tries to preserve the 'best' of Foucault, while acknowledging that both disciplining and surveillance have changed with the advent of ubiquitous, dispersed and more sophisticated surveillance technologies.

Surveillance pulled apart and inside out

In Western thinking during the twentieth century universal and totalizing narratives and the over-regulative government were met with criticism. Michel Foucault contributes to this line of thinking with the concept of 'disciplinary power'. In his later works he tries to revive the classical notion of 'care of the self' for contemporary usage. Foucault then aims to reclaim territory for the perspective of self-care and individual political agency and reduce the importance of disciplinary power and expert-knowledge.

The Panopticon is a plan drafted by the philosopher and social reformer Jeremy Bentham for a circular prison (around 1790)[i]. In this building all the prisoners are held in a separate cell and can be continuously inspected from a central watch tower, which causes

them to behave in accordance with what the gaze expects from them: obedience of the law. What is for Bentham a utopian plan is discussed by Foucault, rather, as being a dystopian nightmare. It is because of Foucault's critical analysis that the Panopticon counts today as a symbol of the demise of privacy in our society full of surveillance cameras and data collection.

Foucault's Panopticon analysis has become a foundational text for Surveillance Studies, the research field specializing in questions concerning camera surveillance, data collection and storage, and today's mobile and online technologies (Lyon, 2007; Galič et al., 2017). Still, within Surveillance Studies as well as from the side of critical thinking about technology more broadly, Foucault's work has become challenged. It is true that the Panopticon has rapidly become an emblematic model for modern society as a disciplinary apparatus, which moulds people into obedient and economically useful individuals. But the question has risen to what extent the Panopticon still is (and ever was) the most fitting model for understanding the linkage and co-evolution of technology, surveillance, and power.

For one, Gilles Deleuze (1992) argued that we no longer live in a 'disciplinary society' but in a 'society of control': not so much are individuals being disciplined, but populations are being controlled. This has become an often-repeated critique on Foucault's approach to surveillance. A more recent critique holds that while the Panopticon, framed as an all-encompassing apparatus, powerfully supports radical social critique, it covers up the interactive and participatory elements of people's engagement in society (Galič et al., 2017). According to Anne Brunon-Ernst (2013) the Panopticon is not outdated, but we have to return to Bentham for a richer picture as Foucault's rendering was too narrow.

With Foucault's later work better edited and published we now know that Foucault did actually extensively consider transformations of power arrangements, and that he himself anticipated the society of control that Deleuze envisioned. Moreover, participatory elements were already fully anticipated in Bentham's original Panopticon plans and also in Foucault's rediscovery and critical assessment of these ideas. The Panopticon remains an extremely rich concept and attains new relevance in our world full of smart technologies. We will show how a narrow conception of the Panopticon and surveillance may be stretched up and pulled inside out. With stretching up we mean that next to 'hierarchical surveillance' the Panopticon plans also already included 'lateral surveillance' and 'self-surveillance'. With pulling inside out we mean that this stretching up of surveillance can and should be combined with Foucault's turn of perspective from disciplinary power to care of the self.

Singapore Sensor City: an impression
Walking the streets of Singapore, as I did in October 2016, might feel like walking in the fully automated sensor-city of the future – as a Dutch magazine would have it (*De Groene Amsterdammer*, 2014). The city is clean, efficient, and safe. Crime figures are among the lowest in the world, the city is free of graffiti, drugs abuse, mostly free of the diseases found in neighbouring countries, and has recovered rapidly after the financial crisis of the past decade. It is a financial success story and an experimental zone, a meritocracy and a new crossbreed between technology, capitalism, and behavioural tinkering.

Economic progress, ethnic harmony, and security form the backbone of Singapore's success, and technology helps it to advance these centrepieces. Walking the streets of Singapore, I was captivated by the functional, efficient organization of city life. Automation means speed, effortless transition from home to workspace, street to building, workspace to mall. One moves between these instances of city life and believes one is watching the future – and being watched by the future – a *flâneur* once more, admiring the fruit of late (techno)capitalism. A strange experience, as Daniel Goh (2014) emphasized; walking in

Singapore is not so much meaningful as it is an incidental and efficient movement between home, train, work, and mall. Meaningless, that is; my awe and wonder did not connect to the story of human struggle that Singaporeans tell themselves (from swamp to metropole in mere decades) but rather to the absence of traces of this struggle in this vision of a city.

Singapore, as a city-state, has three necessary characteristics that would justify far-going experimentation with sensors and surveillance. First of all, Singapore is a *de facto* one-party state, governed since 1959 by the People's Action Party (PAP). Secondly, the existing meritocratic narrative that justifies both this experimentation and its disciplinary policies, is built around the need to survive as a small state with no natural resources, in a region that is often in economic and political turmoil and transition, a region that is dynamic and competitive. I encountered this narrative in my talks with officials from the Singapore University of Technology and Design: Singapore has nowhere to go, and has to navigate the divide between individual desires and collective needs. Singapore is highly dependent on the attraction of foreign capital and needs to present a good (that is: trustworthy) climate for such investments. Thirdly, and this is to some extent speculative, a majority of Singaporeans seem to share the assumption that big problems are not best served by a democracy but rather by the ideology of the PAP, if we extrapolate from 50 years of otherwise non-tampered election results. That is, the narrative and the policies, institutions, and regulations that are supported by it, form a structural background of how society and its electorate sees itself (for further discussion of this political image, see for instance Hwee, 2006; Heng, 1997; Barr, 2012; Goh, 2014; Hill and Lian, 2013; Mauzy and Milne, 2002). These three characteristics together form the frame in which measures to control, organize and protect civilian life are evaluated, made sense of and accepted.

The walk through the city is completely captured by CCTV. In housing blocks alone, 52,000 cameras have been installed since 2012, presumably against 'loan sharks' (Heng, 2016). Over 600 CCTV cameras cover the roads in Singapore. The Mass Rapid Transit (MRT) surveillance system has a camera in every train, train station, and train depot (Yeo, 2008). Each bus has at least five CCTV cameras, depending on it being single or double-decker (Tan, 2006). Equipped with face-recognition software, the system integrating the camera footage can trace and follow citizens through the city effortlessly. To provide an example: on 4 March 2015, two Germans were arrested for spray-painting an MRT-train in Singapore (Chong, 2015). They were traced through CCTV back to their hotel (which they had already left). Although also having left the country, they were followed to Bangkok and Kuala Lumpur, where they were arrested and extradited to Singapore. They were sentenced to nine months each and three strokes of the cane. (Several Singaporeans I met, officially, and in the shopping malls in which I often escaped the heat, proudly shared stories like these, highlighting the efficiency of the police.)

Furthermore, as Jiow and Morales (2015) argue, citizens also play a role in capturing incidents of daily life on smart phones and sharing these via online media. They thus provide lateral surveillance, the surveillance of citizens by citizens. This lateral form of surveillance is omnipresent: especially when riding the metro one realizes that those fellow-travellers, watching their mobile screens, could easily point it toward you, the person not completely familiar with the rituals and vices of Singapore's metro transport system, despite the many signs, telling you how not to sit, where not to sit, and which items not to consume. Jiow and Morales (2015) conclude 'that fear of publicity has statistically significant impact on the respondents' social behaviours across all domains and in general' (Jiow and Morales, 2015).

Indeed, the need to be guided through the customs, practices, and rituals of city life at first feels welcome. As if the manual for blending in is posted on the outside of all public objects and does not depend upon a long process of shameful trial and error. In all public spaces one walks through one is pointed out how to stand, where to stand. This includes

painted footprints on escalators, drawn lines to indicate where to wait for the driverless metro or where to wait in line for the metro tickets. You must not lean on pillars, crowd control barriers or park fences. Indications of proper behaviour are abundant in signs in the metro. The state decides where you should stand in public spaces in order not to bother others. This is than a city, not so much produced by capital, as Walter Benjamin would have it of nineteenth-century Paris, but a city concocted by a patriarchal meritocracy that manages it as a company (or even a well-run school), taking away individual decisions about proper conduct in public spaces and taking away the production of such decisions and mores in the everyday behaviour and confrontation with fellow citizens. Instead, such decisions have been delegated to sensors, signs, policing, and an extensive CCTV network. Coming from Amsterdam and Berlin, in the end one feels a bit stupid throughout, a child once again.

It does not end here. Prime Minister Lee Hsien Loong announced on 20 August 2017 that the different sensor systems, such as the CCTV network, would merge into 'an integrated national sensor network' (Lee Hsien Loong, NDR, 2017). He added,

> We are making every lamppost a smart lamppost, meaning it can mount different types of sensors, on any of the lamp posts. We are installing more CCTV cameras in public spaces. We are combining inputs from different sources: the police, the LTA [Land Transport Authority], hotels and commercial buildings, even hand phones which are effectively sensors on the ground. And we are learning to analyse this combined data, for instance artificial intelligence, to automatically flag when something unusual is happening. So, if I have 10,000 cameras, I don't need 1,000 people watching those cameras, I just need maybe 10 people… Each person can watch 1,000 cameras and if the AI detects that something funny is happening, it will pop up and the man can pay attention and the response can be directed…. So, one day we have an incident, like the Boston bombings, then the home team can assess the situation quickly and respond promptly, or even pre-empt it from happening… (Lee Hsien Loong, NDR, 2017).

This has been quoted at length here to show that a (benevolent) patriarchal state, using signage to indicate appropriate behaviour is starting to frame itself as a (benevolent) police state, in the end pre-emptively sensing bombings through an AI system that is 'monitored' by a mere 10 people. It professes a desire, furthermore, to change the entire city-state, the whole of city life, into data. Every lamppost needs to be possibly converted into a sensing entity, registering a whole range of different micro-events, every mobile phone needs to be scanned for possible useful data. The fact that this AI system needs to be self-learning to cope with clean and dirty data, to lay connections between vast ranges of data to expose the terrorists, are issues that I want to address further in connection to the effects of multiple forms of surveillance on city life in Singapore.

Disciplinary power
In *Discipline and Punish* (Foucault, 1977), Foucault describes how modern society is characterized by ever more institutions with specific procedures which every individual must learn to follow. Under the guise of advances in knowledge and efficiency, everybody has to go through the levels at school, adapt to the rhythm of machines and strict working hours in factories, and undergo treatment procedures in the hospital. The advantages are hard to deny. Who would not want to cultivate oneself by education? And many of us already had such a serious medical condition that they would not have survived without modern hospital care. But do we also see the price of this progress?

Foucault compares the divisions, rankings and procedures that have come to structure all activities in in modern life with the discipline in the military. Each of us becomes disciplined: our body, behaviours, and way of thinking are shaped by exercises. In modern

democratic societies, people have gained freedom in the sense that they have more civil rights. However, Foucault points out that this has been accompanied by a huge increase in interference with the details of our everyday life. For Foucault, this amasses a new form of power, not of a human ruler who dominates us, but an 'anonymous' power that 'disciplines': each of us becomes adapted and trained to function well in modern society.

This modern society is a society full of tools, devices and systems. To live in a way well-adapted to this society means that one also must learn to use and embody all those things. Foucault brings this to the fore by watching how soldiers are disciplined to all march in exactly the same way, to carry their weapons and shoot: man and gun are forged into a single hybrid unity. Comparable, though less coercive, is the process of learning to write at school. It is soon forgotten afterwards, but it takes a lot of practice to hold a pen, and then to learn to draw big and small loops, before we can finally smoothly write down our thoughts. Technology therefore plays an important part in Foucault's analysis. The most famous and remarkable example of this technology is the Panopticon.

The Panopticon

Jeremy Bentham presented his Panopticon plan as a model for an inspection house designed for effectively watching over a large number of people. The design consists of a ring of cells, six floors high, built around a central watch-tower. On the inside, directed towards the lodge, the cells would be largely open; only a light iron grating was planned. The central watchtower itself would be covered with a transparent curtain 'that allows the gaze of the inspector to pierce into the cells, and that prevents him from being seen' (Bentham 2002: 12-13; cf. Bentham 1843, IV: 44). This is the essential architectural feature that generates a specific power relation between watcher and watched. Thus, a 'simple architectural invention' (Bentham 1843, IV: 39; cf. Bentham 2002: 11) makes possible efficient surveillance and control of people in prisons, asylums, schools and ultimately society at large.

It is important to note however that submission of the prisoners to the guards by means of power inequality is not the ultimate goal. Bentham envisions that the inspectors themselves could also be put under surveillance. In the end there would be hardly any inequality, because sub-inspectors will be inspected by chief inspectors, who would in their turn be inspected too (Bentham 2002, 15; cf. Bentham 1843, IV, 46). Ultimately, when everybody can see everybody else, a separate guard would no longer be needed. Power inequalities disappear.

Or, power is even altogether dissolved, as people will voluntarily behave correctly. Bentham believes that continuous surveillance would help to shape our moral conscience to perfection: 'Being constantly under the eyes of an inspector, is in fact losing the power to do evil, and almost the thought of wanting to do it' (Bentham 2002, 14). Bentham is also the father of the utilitarian doctrine in ethics according to which an action is good if it results in an increase of happiness for the actor and others. In an ideal world – a panoptic world believes Bentham – everyone would always immediately experience the right consequences of any action. And people would correct themselves and behave according to the principle of maximizing happiness.

Surveillance multiple

The Panopticon should not be seen as outdated because it forecloses the more participatory elements of surveillance that come to the fore with the digital, smart, and mobile devices of today. Bentham's original plan already foresaw an evolution in this direction. Indeed, hierarchical surveillance, with a guard looking over imprisoned subjects, is the basic figure of the Panopticon. But it is also part of the original plan that surveillance should finally be

distributed, rendering a participatory form of surveillance or what we refer to as 'lateral surveillance'. Moreover, Bentham view on the moral effects of ubiquitous surveillance also points in the direction of yet a third dimension, namely of what we refer to as 'self-surveillance'.

All of these aspects of Bentham's Panopticon plans are taken up by Foucault, but in a suspicious rather than enthusiastic vein. Firstly, Foucault was as impressed as Bentham about the massive hierarchical power effect an architectural design can have. Secondly, Foucault also reports the idea that a guard becomes ultimately unnecessary when in a totally transparent society people inspect and correct each other (lateral surveillance). Thirdly, Foucault considers how surveillance is internalised by people and thus develops into self-surveillance.

While Bentham's dream is a transparent society which elevates people's morality, Foucault foresees 'panopticism' (1977, 208): indeed, a dispersion of surveillance throughout society, but in the form disciplinary power which turns people into docile bodies instead of free moral subjects. Although the more participatory dimensions of surveillance are present in Foucault's analysis of the Panopticon, his over-all evaluation of the actual implementation of surveillance is rather gloomy in *Discipline and Punish*. Foucault saw mostly hierarchical disciplinary power that subjects people. After a further investigation of surveillance in Singapore, we will turn to Foucault's later work on the 'care of the self'. There we can find suggestions for how the hierarchical power perspective of panopticism can be complemented with the perspective of individual people.

Surveillance in Singapore

Above, we have allowed for three forms of surveillance: 1) hierarchical (big) data surveillance of corporations and governments, and the synoptic surveillance of the few by the many (Elmer, 2003), 2) lateral surveillance between citizens, and finally, 3) self-surveillance of the citizen of him or herself. These forms merge into one another: lateral surveillance can become part of hierarchical surveillance, as laterally captured data is available to corporations and governments, and extensive collaboration exists between national security agencies and GAMAFA. Both these forms of surveillance furthermore deliver incentives for the individual to surveil him- or herself accordingly, what we could call 'self-censoring'. Vice versa, fitness apps stimulate one to share data on one's morning run, effectively creating lateral surveillance (an audience) for one's achievements in the hope of more motivation (group pressure), data that could be bought by insurance companies, one's employer etc. The Quantified Self Movement (QSM) seems to come closest to a 'pure' form of self-sensoring (without censoring), in the sense that one chooses the bodily functions and mental states of which one wants to store data and perform analysis (Sharon and Zandbergen, 2015; Lupton, 2012). However, the QSM seems an anomaly in data capture and storage, most citizens are not aware of controlling the data they share and the data they use to improve their or others' vision of the good life.

The aforementioned three forms of surveillance, hierarchical, lateral, and individual (self), abound in Singapore. One knows and realizes that one is watched constantly. Complete visibility is not however accompanied by complete transparency, one knows and sees that one is always watched (except in one's hotel room, where CCTV is assumed to be replaced by less visible forms of, for instance, cell-phone surveillance). What is being monitored and in which way(s) one's 'data double' (Lyon, 2007; Lupton, 2012) is stored, assessed, and analysed is not apparent. Indeed, one does not even know one's data double; the mirror subject that emerges out of the data-capturing techniques, a complete virtual subject (Elmer, 2003) that is, like Gogol's nose, however (more) actively participating in the reconstruction of

civil society. Furthermore, given the futility of talking about privacy in a sensor society such as Singapore, one can only hope that one's data double is a useless mismatch, a *Wolperdinger*, a mess of unprofitable data. There is little sense in trying to mould this mirror subject to our own sense of self, although several artists have recently tried to intervene in the process of this creation of mirror subjects. Justine Gangneux, for instance, focuses on the artistic challenges of surveillance processes. She sees people engaging with surveillance in their everyday life 'altering, noticing, playing, appropriating, questioning, and/or complying with it' (Gangneux 2014: 443). These different approaches can take the form of (ironic) resistance. Examples of this are Adam Harvey's *CV Dazzle* (2010), in which he camouflages his model to con face detection software. In *Evidence Locker* (2004) by Jill Magid, the artist, dressed in a red trench coat, asks Citywatch, the company in charge of Liverpool's surveillance, to guide her through the city with her eyes closed, directed by the 'eyes' of the CCTV system. In *Tracking Transience* (2002 – ongoing) Hasan Elahi, after being detained in Detroit for alleged terrorist activities (and cleared of these suspicions), started tracking his every movement and sharing this online. Hito Steyerl (2013) has developed five instructional videos on how not to be seen in a world full of surveillance systems. This list continues, as artists play with surveillance, decorate the camera's, show how the system can be destroyed, made useless, how the watchers become the watched, etc. I found none of this irony and play in Singapore.

At the same time, it is too easy to immediately discredit the technological design of public interaction. A stranger in a foreign city, I often feel the pressure to conform, to tune in, blend in. The ubiquity of sensor-technology, one might experience as an extra restriction of personal freedom (a form of social claustrophobia) and as a force of disciplinary power that lays extra stress on conformism. Often these forms of power justify themselves, since we do not know what is still left of sensitivity to the needs of others in the public sphere if we let go and leave decisions and resulting behaviour again to the flux of interactions between individuals. Secondly, if disciplining is transferred to the realm of technology, the normativity inherent in this transference becomes invisible and irreversible. The technology appears value-free, translated to terms that fit technological power: efficiency, certainty, and infallibility. This is how a foreign wanderer understands Singapore at first, as a city-state afraid to let go and a city-state that more and more relies on technology and technocratic language to overcome its fear that what lies underneath is chaos, violence, and (economic) destruction.

One of the popular doomsayers of the possibility to solve all social issues with technology, Evgeny Morozow, talks about 'solutionism' (Morozow, 2013). Solutionism is the idea that technology makes it easier for people to connect, to bring together demand and supply, to make them better versions of themselves. At the same time, however, technology is used to keep people apart. This is one way of looking at the sensor-city; a system based on biometric information that regulates inclusion and exclusion of individuals in the different social, economic, and political strata of the city. It diminishes the interaction of individuals and the social dynamics that seemed to have defined city-life. Sensors decide who has access to certain districts, services, buildings. Contact with persons that are not on the same access level is avoided, the city is frictionless adapted to the status of its inhabitants. The city is furthermore divided into zones of access, as happened after the siege of Fallujah in 2004 (Graham, 2012) but also during the Nuclear Summit in The Hague a decade later. For every zone, except the lowest, one needs a clearance. Technology enables this zonification of the city.

But Singapore is also a city that enables its citizens to walk its streets safely. As one blogger noted, there is no better city to leave your laptop unattended on a café table (Kwann, 2012). Citizens are able to live a productive, healthy, and safe life in a booming economy,

because they are *willing* to share their data and often consciously do so. They stream, store, and capture data knowing that this data is being monitored by others. They have traded parts of their privacy and now reap the rewards of this trade. In this perspective, technology is offering a helping hand, travel time is reduced, the temperature inside buildings is low, the city is clean, the occurrence of tropical diseases is kept at a minimum, and so forth, because people have accepted the price they pay for these benefits. A belief in and focus on technological progress in exchange for privacy, one could say, has made Singapore what it is.

To extend such a belief to all realms of society is questionable. Secondly, that other, more dynamic and open social problems are delegated to technology as well, rephrased to fit the narrative of interlinking technological and economic progress, is troublesome, since it provides Singaporeans little possibility of opting-out and switching off. This leads me to one further point; when opting-out is no longer possible, a subscription one cannot cancel, resignation without resistance seems the only viable coping strategy for civilians. In my street interviews and small talks with shop owners, this strategy abounded. Our conversations often dwelled upon happiness. Nobody told me they were happy; life was hard but safe. The pressure to perform, under the watchful eye of the government, led to stress with little room for venting it, and my collocutors accepted it.

Power transformations

The dilemmas posed by Singapore can be elaborated on through the later works of Michel Foucault. In the years after *Discipline and punish*, working on a never completed multi-volume history of sexuality, Foucault broadened his scope from disciplinary power to the theme of government techniques and practices more generally. He considered, for example, how disciplinary power (shaping the individual's behaviour) over time evolved into bio-politics: the government of populations with new techniques such as statistics. This compares to Gilles Deleuze's notion of the society of control. In the direction of the past Foucault explored how discipline had a precursor in 'pastoral power', guidance of church members or citizens by pastors or monarchs according to the model of the caring shepherd. Quite surprisingly for many, Foucault's last books, from 1984, appeared to be about the care of the self in Greek and Roman culture. This meant a remarkable shift of attention from the government of others to the government of oneself.

In his lectures from 1980 we can see how the inside of power relations, the perspective of the self, is coming to the fore:

> Governing people is not a way to force people to do what the governor wants; it is always a versatile equilibrium, with complementarity and conflicts between techniques which assure coercion and processes through which the self is constructed or modified by oneself (Foucault, 1999: 162).

In his work on disciplinary power, the perspective of the people who undergo power was largely absent. Now Foucault came to recognize and value that the self is not only produced by government imposed on individuals by way of disciplinary practices, but that the ways of coping with influencing circumstances by techniques of self-governing and self-discipline are equally important.

> In short, having studied the field of government by taking as my point of departure techniques of domination, I would like in years to come to study government […] starting from techniques of the self (Foucault, 1999: 163).

Foucault comes to understand power as strategic relations between people, as games of governing and being governed. A critique of power should not consider power simply as repression. Power is not the adversary of the 'self', and it can never be altogether overcome. Every instance of subjectivity is entangled in relations of dependency and government, and thus related to power. Instead of a pre-existing universal self that could be affected and repressed by power, Foucault suggests that 'the self is nothing other than the historical correlation of the technology built in our history' (Foucault, 1999: 181).

Care of the self
The care of the self means a complement to Foucault's study of power: the 'inside' perspective of how people govern themselves and cope with external influences is added to the 'outside' perspective of power. This also means that power is no longer the opposite of ethics. In the sense of a discontent with existing power structures there was always an underlying ethical dimension in Foucault's work. But on the surface the emphasis on power was in opposition with Enlightenment ideals and modern ethical theories such as Jeremy Bentham's. In ancient ethics the emphasis was less on codes and their theoretical foundation, but on individual people's ethical practices (Foucault, 1992: 30). Foucault thinks there was an awareness of 'subjectivation', meaning an active stance towards the formation and transformation of oneself though one's activities and engagement with others and circumstances.

This focus on subjectivation was lost in modern ethical theories, thinks Foucault. Modern ethics puts forward universally binding principles, accompanied by a belief in the human beings as free and rational subjects who are thus able to respond to the vocation of the moral principles. The problem of human freedom in relationship to both moral laws and determinations in physical reality is explicitly considered in the ethics of Emmanuel Kant. In Bentham's work there is, with hindsight, a strange naiveté about the paradoxes of human freedom. Is it logical that the Panopticon by its deterministic effects sets people free to act fully in accordance with the rational principle of maximizing happiness? Foucault criticises modern Western thought for its focus on a given free and rational subject. First, he revealed how power produces modes of being of human subjects; later he proposes a broad meaning of ethics that is precisely about this formation of subjects.

Foucault mostly wrote about the care of the self in the context of a research about sexual ethics and practices in ancient times (Foucault, 1992: 1990). His historiography covers behaviours and customs with regard to personal hygiene, the roles and tasks of espouses in the housekeeping, as well as concerning sex and love more in particular (topics which are explored in detail in a number of the papers in Volume I of this series[ii]). Practices that he brings to the fore as contributing to self-transformation are for example meditation, consultation with mentors, and confession (in later Christian times). A topic that Foucault also discussed, apart from the history of sexuality, is writing as a self-practice. He analyses how the practice of writing letters and, later, diaries accompanies and perhaps promotes the development of a more intense sense of self (Foucault, 2000a). In a late article that links his interest in the ancient care of the self to his earlier studies of modern society, Foucault mentions political activism and modern art as examples of self-transformative practices today (Foucault, 2000b). Critical philosophy and ethics should include these practices so that philosophy becomes a way of living again instead of a theoretical discourse only.

Technical mediation and subjectivation

Foucault did not himself connect his earlier researches on surveillance and the Panopticon with his later work on the care of the self, although this does seem relevant for contemporary ethics around the themes of surveillance and smart technology. Surveillance studies, as said, has remained focussed on Foucault's work on power, but some scholars have begun exploring how the care of the self and technology can be recombined.

The anthropologist Jean-Pierre Warnier (2001) was a pioneer in this respect. He proposed using Foucault's later work to develop a 'praxeological approach to subjectivation in a material world', by which he meant the ethnographic study of people's practices of dealing with technical products in all areas of life and bringing to the fore the contribution to self-formation. Warnier noted that, 'as a historian and a philosopher, Foucault has never been concerned with making explicit what could be an ethnography of the techniques of the self'. He adds: 'Foucault never concerned himself with providing a detailed analysis of the processes by which the material contraptions […] reach the subjects and act upon them' (Warnier, 2001: 12). This is true for Foucault's later work on the care of the self, but Foucault's account of being trained in the use of pencils and rifles in *Discipline and Punish* is already very close to the ethnographic approach Warnier promotes.

All that is necessary is to pull the earlier analysis inside out: consider the impact of technology from the perspective of not only the government of others but also of the self. Exploring and extending Foucault's contribution to the philosophy of technology leads to a framework of technical mediation and subjectivation (Dorrestijn, 2012). In the philosophy of technology 'technical mediation' refers to the impact of technology on the human way of living, as well as on a deeper level to the interdependence and hybridity of humans and technology. Subjectivation is Foucault's notion for understanding that the self is not given once and for all, but emerges. The human being as a subject exists in the end in the performance of care of the self.

Freedom, thinks Foucault, for example, exists in the exercise of freedom (Foucault, 2000c). Liberation from a dominating power can be one step in the process, but it is not the fulfilment. There will always be further powers, such as impacts of technology in our case. Freedom is therefore not the absence of influences, but rather the ongoing exercise of actively coping with the impacts of technology. Bringing to the fore and raising awareness for the significance of practices of integrating new technology in our lives is an important element of this approach. Finally, an ethics after Foucault is not compelling but rather characterized as an art of living.

Care of the self and surveillance in the smart city era

In this chapter we worked towards a theoretical framework for studying surveillance and the care of the self in Singapore. We built on the work of Michel Foucault, because his work is both influential in surveillance studies, as well as in the revival of ethics as care of the self. We found that the Panopticon plan as a referential example remains full of inspiration for the study of surveillance. New technological developments, such as smart technology and sensors, bring sometimes neglected elements of the Panopticon to the fore. We have shown that there are and have always been multiple dimensions in the Panopticon plan. It was surely not conceived simply as a repressive apparatus, but included participatory elements from the start. We think we can bring this to the fore by firstly distinguishing different dimensions of surveillance: hierarchical surveillance; lateral surveillance; self-surveillance.

Next, we elaborated a more participatory account of subjectivation in relation to technology and surveillance. The structure of the Panopticon design and plans do not foreclose a more participatory perspective, but both Bentham's and Foucault's approaches

rendered it marginal. Following Bentham's modernistic belief in rationality, ubiquitous visibility in a panoptic society elevates people's utilitarian moral seasoning. Bentham considers that our true and perfect self. Hierarchical and lateral surveillance would sublimate into self-surveillance. For Foucault the actual implementation of surveillance measures leads to disciplinary power that produces docile bodies. Self-surveillance and lateral surveillance are subsumed by hierarchical surveillance. The later work of Foucault on the care of the self helps however to correct for this one-sided view and allows to see that people may in an affirmative way contribute to their subjectivation, instead of only suffering as victims of power.

This does not mean that the hierarchical power perspective loses relevance. With regards to current developments in smart technology, this dimension seems to become again highly relevant today. Our case study exemplifies the need for active subjectivation practices amongst the citizens of Singapore, although little room exists for the experimentation with such practices. Characteristic for smart technology is the use of all kinds of sensors and algorithms to profile people and tailor services. People usually have little insight into the data gathered and the decision-making algorithms that lead to the services and recommendations they are offered on the base of those data. Thus, there is a further shift from surveillance and punishment in which people are consciously involved to sensoring and influencing behind their back.

As mentioned in the introduction to this chapter, we have not touched upon an interesting paradox: On the one hand, Foucault's take on the care of the self and the Asian tradition of practices of the self, can be seen as premodern traditions that Foucault wants to revive in the West. On the other hand, the enthusiasm for technology in Asian societies such as Singapore can be assessed as a form of hypermodernism, to which Foucault's critique of modernism would apply. This paradox, the fragile co-existence of both premodern traditions and hypermodern, mediated relationships with self and others in the four Asian Tigers (Singapore, Hong-Kong, Taiwan and South-Korea) merits more elaboration and scrutiny.

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[i] The 'Panopticon Writings' have been published in the collective works Bentham 1843, Vol XIII. See Bentham (2002) for a concise version that was edited in French in 1791. See Bentham (2005) for contemporary English selection.

[ii] *Ancient and Modern Practices of Citizenship in Asia and the West: Care of the Self, Volume I*: see in particular Chapters 3 to 5: Patrick Healy's 'Socrates, "Alcibiades 1", and Foucault's Last Turn'; Luiz Paulo Leitão Martins' 'The Biopolitics of Sexuality and the Hypothesis of an Erotic Art: Foucault and Psychoanalysis'; and Karan August's 'Elective Spaces: Creating Space to Care'