

The transparent self

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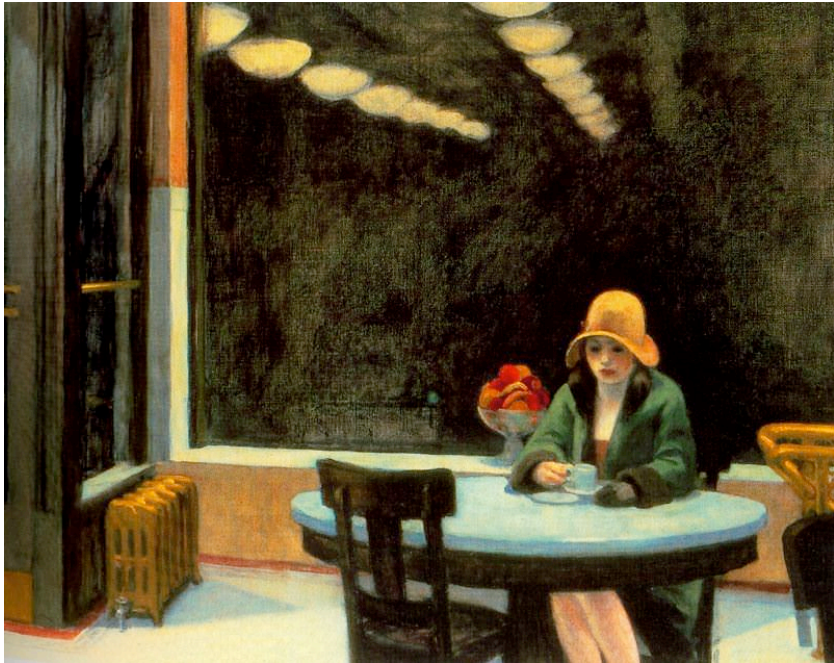
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'Automat', Edward Hopper, 1927

The Transparent Self

Marjolein Lanzing

The Transparent Self
A Normative Investigation
of Changing Selves and Relationships
in the Age of the Quantified Self

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*Voor Ralph
Dkojdan!*

“So long as you write what you wish to write, that is all that matters; and whether it matters for ages or only for hours, nobody can say.”

Virginia Woolf, *A Room of One's Own*

“Sometimes one needs to disappear a little. It is good for the soul.”

Esi Edugyan, *Washington Black*

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'Great idea, but you should come back Marjolein.' I'm sitting in front of Johan Hartle. For the past six months he has taught me everything about Georg Lukács and Karl Marx. We've just discussed my bachelor thesis. It's called *The Whole Personality* and it's about commodification, reification and... dating sites. It's 2009 and I'm convinced that an interest in such a topic makes me utterly unsuitable for a career in philosophy. I decide to switch gears and pursue a master in social science. And now Johan tells me that there are philosophy professors, *'here at this very university'*, who do interdisciplinary research; who strive to bridge the gap between theory and practice; who think dating-sites are a perfectly respectable subject for an ethical evaluation. *'Learn how to do empirical research, then come back'*, Johan advises me.

Needless to say, I did come back and I found those philosophers. Ten years later I've written a thesis on theories of friendship, privacy and Facebook and a dissertation on self-tracking technologies, privacy and autonomy. I'm pleased to announce that there's a chapter on dating-apps in this book.

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Introduction

“Our body radiates data (...) The age of quantified self is upon us! Self-knowledge through self-tracking with technology as the enabler (...) we can identify the events and manipulate our environment to make us more happy and less sad and more productive. (...) Not only can we become healthier and more productive, but we can become better parents, better caretakers, better lovers, better humans. We all hear that we are only using about 10% of our human capabilities, so our future selves can be ten-fold better than our current selves.”¹

Imagine that you would be able to know everything about yourself. Imagine that based on all of this knowledge you could improve your behaviour with the help of small technological encouragements and interventions. You would not even notice them! Imagine what your future self would look like: would you become a better parent? A better lover? Would you become a better self?

In the past decade we have experienced a boom in the information and communication technology industry. Rapid developments in Big Data collection and analysis, algorithmic decision-making processes and prediction led to new technologies and practices aimed at understanding, improving and empowering our selves and relationships. I refer to these technologies as ‘self-tracking technologies’.

Self-tracking is a ‘voluntary’ practice that involves the quantification of attributes and behaviour, based on self-, peer- and surveillance, for the purpose of improving one’s self-management and the management of one’s social relationships, enabled by technologies, such as wearables, smart objects and apps. By voluntary, I mean that most people who use these devices voluntarily ‘upload’ or ‘allow these technologies to track’ their data for the sake of improving their self-management and relationship-management. Of course, as we will learn, the ‘voluntariness’ of self-tracking

¹ Lauren Constantini, CEO Prima-Temp (health care technology company), 2014, <https://www.youtube.com/watch?v=FESv2CgyJag>

is contested. While there are also non-commercial self-tracking technologies, the most widely used technologies are produced by commercial enterprises.

Self-tracking technologies can be divided into two categories: Quantified Self Technologies (QS), such as apps that track your fitness (FitBit) or period (Natural Cycles) and Quantified Relationship Technologies (QRT) that are 1) based on objective data, such as wearables that track your sex life (Lovely, SexKeeper) and 2) that are based on subjective data, such as social apps that promise to manage your intimate relationships such as your friendships (Facebook, Instagram) and dating life (Tinder, Grindr).²

Roughly, QS promises to improve one's self-management by tracking and quantifying one's behaviour and offering personalized feedback for behaviour change based on the data (Boesel 2013; Nafus & Sherman 2014; Sharon 2017). Similarly, QRTs promise to track and quantify the interactions within one's relationships in order to become better lovers, better friends or better parents (Danaher, Nyholm & Earp: 2018).

Deborah Lupton's gives two arguments why we should take social network services (SNS) into account when investigating self-tracking technologies. First, 'many apps and platforms merge social media functions with self-tracking, in an attempt to provide social support for people who are trying to achieve behaviour change or other goals' (Lupton 2016: 23). Health and fitness tracking apps can be plugged into SNS like Facebook and some fitness apps are SNS at the same time (Strava). Moreover, Instagram is a social platform but also a lifelog of one's activities. Finally, social network services track and quantify user's attributes and behaviour (Lupton 2016: 22).

² This distinction is further elaborated upon in Chapter Five. The final set of technologies are social apps that promise to manage one's social relationships and dating life, such as Instagram and Tinder. The difference between the first two categories and the latter is that QS and QRTs aim to collect as much 'objective' data about one's body, behaviour and one's social interactions as possible. This should function as a mirror that will generate the insights that should improve one's self-management and the management of one's social relationships. The subset of QRTs, also involves 'self-tracking' but it is more subjective. Users upload information and build their profiles based on how they wish to present themselves rather than striving for 'self-knowledge through numbers'.

Our bodies radiate data. Why not use it? We might become better humans and lead more flourishing and autonomous lives, enabled by the technologies that collect the data that is already constantly ‘oozing’ out of our pores. We may become healthier and more productive. We might increase our self-understanding. We may become better at fulfilling our social roles and managing our social relationships.

And we have good reason to believe that these technologies *do* improve our lives and relationships. Especially in the health care domain expectations are high (Norris 2012; Steinhubl et al 2013; Swan 2009, 2012& 2013; Topol 2015). For instance, tracking one’s glucose levels helps to better manage one’s diabetes and enables a user to share an overview of data with their physician to improve their treatment plans (MySugr). Moreover, Microsoft found that wearable cameras taking hundreds of pictures per day may help people suffering from Alzheimer’s disease to remember (SenseCam).³ Furthermore, self-tracking technologies have also been celebrated for improving the management of social relationships and transforming the social domain. Dating-apps such as Grindr have transformed dating for the LGBTQ+ community, opening new possibilities for (safely) meeting gay, trans and bisexual people across the world. Finally, social apps such as Facebook enabled the organization of political, activist platforms and empowerment groups.

On the other hand, these examples bring to mind fierce public debates about privacy. Users voluntarily surrender a treasure trove of highly sensitive information to these technologies that have nestled themselves comfortably within our most intimate spheres, but which are produced by commercial enterprises. All major tech companies are investing in self-tracking technologies. For instance, most recently, on November 1st 2019, Google bought wearable technology maker FitBit Inc. including its health data records for 2.1 billion dollar. Every once in a while we are reminded of the vulnerability that comes with the collection of our information: when Grindr shared data on the HIV status of its users with a software vendor and

³ <https://www.theguardian.com/technology/2014/aug/09/how-wearable-cameras-can-help-those-with-alzheimers>

ad targeting company; when Maya, a period-tracking app, sold data about women's menstrual cycles to Facebook; when WeVibe, a vibrator that tracked the sex life of its users through a corresponding app, connected the data to user's e-mail addresses and customer accounts without their knowledge or consent; when Facebook allowed Cambridge Analytica to target its users with personalized, political advertisement.

Intuitively, we sense that these technologies change how we understand and relate to ourselves. Moreover, we sense that they change our social relationships. Sometimes users suddenly become aware of this transformation. The example below illustrates this intuition.⁴ In a recent Guardian article, writer Olivia Sudjic reflects on her use of about contraception app Natural Cycles that tracks her temperature and uses an algorithm to predict her fertile days. Despite regular use of the app, she had gotten pregnant. She recalls the phone conversation with a customer service employee of Natural Cycles, who was 'sorry to hear' that she had gotten pregnant:

“I felt like I'd acted alone in the decision to use the app and had been overly trusting. But I was also angry that I'd been treated like a consumer, not a patient.”⁵

Natural Cycles is a FemTech example. FemTech involves (intimate) health technologies that focus on women's health. They include technologies that track your period (Clue, Maya), fertility (Natural Cycles, Ava), pregnancy (Glow, Ovia Health) and healthcare technologies for sexual well-being (Lioness, Emjoy) and the reproductive system (Elvie). (Female) entrepreneurs are increasingly capitalizing upon FemTech. It has become booming

⁴ Thanks to Naomi Jacobs for suggesting this example to me.

⁵ While you could argue that this woman was not a patient, the interaction with the app had substituted a conversation or interaction with her lifelong physician about contraception methods. The app is presented as a digital health device based on clinical trials and frames their users as 'patients'. It has a special page for health care professionals offering 'patient profiles' that disclose whose lifestyles are compatible with the Natural Cycles app. Women who desperately want to have children are equally eligible as women who have no imminent plans to start a family.

business with an estimated investment of 50 billion dollars by 2025 and attracting hundreds of thousands of users (Woodford 2018).

Women’s health data is uncharted territory that attracts large tech companies. In February 2019, The American Heart Association partnered up with Verily, Alphabet’s life sciences research organisation. The goal is to recruit women for health research.⁶ Verily used advertisements on Google to target potential participants on the basis of their health-related search history.⁷ In September 2019, tech-giant Apple launched several partnerships with health institutes and universities.⁸ It offers its Research and Health Kits to collect women’s health data in order to improve the health of women.

FemTech is celebrated as an emancipatory development with regards to women’s health and women’s rights (Medium, FemTech collective). For instance, Natural Cycles is promoted as the latest development in the contraception for relying on personal data and smart algorithms rather than hormones. Controlling contraception has been an important step in the empowerment of women: ‘Contraception has been at the forefront of feminism allowing women to make conscious decisions about their future’, the CEO of another fertility app expressed (ECNMag). But, do commercial apps like Natural Cycles contribute to the empowerment of women or do they make them more vulnerable to surveillance, leading to instances of manipulation and discrimination?

Fertility apps like Natural Cycles collect large amounts of intimate data about their users (“I took a quick look at your data, and in terms of ovulation everything looks good!”) and pressure their users into using the technology (“You do not need to worry about losing any data – we never delete anything!”) (Sudjic 2018). Companies such as Activision Blizzard even pay their employees to track their pregnancies, menstrual cycles and fertility using Ovia Health, raising questions about discrimination on the workforce (Mahdawi 2019). Furthermore, Natural Cycles uses targeted advertising (for

⁶ <https://blog.verily.com/2019/02/project-baseline-and-american-heart.html>

⁷ <https://www.mmm-online.com/home/channel/this-patient-group-boosted-women-enrollees-in-health-study-run-by-alphabets-verily/>

⁸ <https://www.apple.com/newsroom/2019/09/apple-announces-three-groundbreaking-health-studies/>

instance, influencers) on social media for the promotion of a healthcare product. Period tracking app Maya even sold information about women's menstrual cycle to Facebook.⁹ Moreover, Facebook may be interested in this data for commercial reasons. Pregnancy and certain moments of women's periods are notorious among advertisers and marketers because at these times women are particularly vulnerable to behavioral steering.¹⁰ Finally, in the case of Natural Cycles, women report unwanted pregnancies because its algorithmic predictions are inaccurate. When they confront the company, they are treated as 'consumers' rather than 'patients' (Sudjic 2018). The example shows how social roles are remediated through the use of a commercial self-tracking technology, changing social relationships as well as the self-understanding of the user.

Self-tracking is not an individual or isolated practice. It also shapes other people and our relationships with others (Gabriels & Coeckelbergh forthcoming). After all, our 'selves' are social. (Intimate) relationships are an important part of who we are, of ourselves, and important for leading an autonomous life. The surveillance and quantification one's own data has implications for the ability to differentiate between social relationships and for the meaningfulness of those relationships. For instance, Chapter Two shows how self-quantification through self-, peer- and surveillance and may lead to problems with regard to maintaining informational privacy norms in order to differentiate between different social contexts. Chapter Three argues that, in addition to informational privacy, one's decisional privacy is undermined because large corporations can meddle with decisions that we want to reserve for particular social contexts. Moreover, this is enabled by large aggregates of data collected from millions of users.

Conversely, ICTs that promise to enable us to manage our social relationships also track and quantify our selves. In Chapter Four I present the ambiguous experiences of girls with regard to 'visibility'. Instagram

⁹ <https://privacyinternational.org/long-read/3196/no-bodys-business-mine-how-menstruation-apps-are-sharing-your-data>

¹⁰ <https://www.targetmarketingmag.com/article/market-focus-expectant-mothers-28713/all/>; <https://www.vox.com/the-goods/2018/11/13/18079458/menstrual-tracking-surveillance-glow-clue-apple-health>

serves an important social purpose but at the same time, the social-technical environment is unsupportive of their agency, which has implications for the reproduction of individual and social vulnerabilities. In Chapter Five I argue that the commercial nature of many of the technologies that we use to manage our selves or our relationships with others changes the way we relate to and understand ourselves, as well as our social relationships. In the most harmful case, this leads to self-reification and the reification of social relationships.

The aim of this dissertation is to evaluate the diverse phenomena involved in the practice of self-tracking. For that purpose, I investigate different ‘popular’ technologies that track user’s intimate domains (their bodies, behaviour and social interactions) and that are, for commercial reasons, involved in practices of surveillance, quantification and behavioural change and structure their social-technical environments accordingly. While each chapter discusses a different technology, they all contribute to the conceptual toolbox for an ethical evaluation of technologies that promise to improve our self-management and the management of our relationships.

I introduce the term of ‘the Transparent Self¹¹’ to understand these technologies. A Transparent Self is the result of extensive surveillance and quantification through the use of intimate technologies that promise to empower one’s ‘self-management’ and one’s ‘relationship management’. However, transparency does not refer to access to (clear) self-knowledge as we know it from debates in the field of epistemology (i.e. Moran 2012). Of course, this conflicts with the slogan of the Quantified Self Movement: ‘self-knowledge through numbers’. In that respect, one should take the title of this dissertation to be ironic. ‘Transparent’ refers to the waning options for autonomous self-disclosure and self-presentation in different contexts and

¹¹ I will use concepts such as ‘person’ and ‘subject’ interchangeably with ‘self’. I chose the term ‘self’ because I do not intend to set out a theory of personhood, identity, subjectivity, humanity or agency in this dissertation, although you might find traces of discussions revolving around these notions below the surface. I am interested in the conditions required for people to live an autonomous and flourishing life and to what extent technologies that promise to manage ourselves and our relationships contribute or undermine those.

their consequences. The ‘Transparent Self’ is the person whose choices, behaviour and social interactions are tracked, quantified, steered and commodified.

At its limit, a Transparent Self is at odds with a social, historical and embodied self. When I talk about ‘the self’ and self-understanding, I refer to a self that is embedded within social networks and relationships. Moreover, I assume that one’s identity, how one understands herself, is shaped by social practices, beliefs and values (Nedelsky 1989). I mean this in a weak sense: social relationships are not *constitutive* of a person. After all, a ‘self’ will not disintegrate the moment the relationships in someone’s life change or end. Furthermore, a ‘self’ is historical in the sense that selves are dynamic and evolve over time: people change and develop. If we want to live autonomous lives, we should be able to reflect on the events and (social) conditions that predated our current situation (Christman 2009: 11 & 32). Reflections on and interpretations of one’s memories as well as one’s future plans matter for one’s self-understanding and for what it means to live an autonomous life. Finally, selves are embodied in the sense that how people experience their bodies influences how they think and feel (Young 1990).

Importantly, I do not presume the existence of a static ‘true self’ that can be made transparent, discovered or be at stake (Strominger, Knobe & Newman 2017). Nevertheless, the absence of a true, atomistic, static self does not mean that there is no self to govern. People have a social self to govern: a self that presents herself differently in different contexts as she is embedded within many different social relationships (Christman 2009). I return to this in Chapter One by presenting my view on autonomy. This view acknowledges that relationships are important for developing autonomy and that autonomy requires the capacity to develop these relationships: self-chosen disclosures and autonomous self-presentation.

The focus of this dissertation is the analysis of various aspects in the practice of self-tracking that shape and disrupt our social relationships and self-understanding. Our social relationships are important for the way we understand ourselves, for who we are. Moreover, they are important for the development of our autonomy and for leading a flourishing life. When

commercial enterprises transform our social relationships by mediating these relationships through technologies that we use in the most intimate domains of our lives, this changes how we understand our selves and these relationships. In this dissertation, I want to explore the second, moral half of the claims of the age of the quantified self as quoted at the beginning: do these technologies strengthen our relationships and self-understanding to become better parents, better lovers and better selves? Or, should we be concerned about how these technologies change our self-understanding and our social relationships? What are the implications of quantification, surveillance and behavioural steering by commercial self-tracking technologies that promise to improve the management of our selves and our relationships? Do they contribute to or do they undermine an autonomous and flourishing life? In other words, how should we judge the changing understanding of an increasingly transparent self under the influence of self-tracking practices?

In order to answer these comprehensive questions and to evaluate commercial self-tracking technologies, privacy as ‘data protection’ will be inadequate. Through commercial self-tracking technologies, surveillance and quantification have become part of our friendships, romantic encounters and intimate relations with our selves regarding our health and well being, making us vulnerable to behavioural steering and harmful commodification of our relationships. We need to emphasize that a Transparent Self implies structural changes within our social relationships and our self-understanding that impacts a person’s ability to lead an autonomous and flourishing life. This dissertation provides an attempt to reframe the debate in these terms by taking relational privacy and relational autonomy as its starting point. Relational autonomy refers to the idea that social relationships play an important role in developing an autonomous and flourishing life, and relational privacy refers to the idea that privacy plays an important role in the development of these relationships. I will elaborate on these theories in Chapter One. In the following I explain the structure of this dissertation and how each chapter contributes to a deeper understanding of the strengthening

or diminishing dimensions of self-tracking technologies for an autonomous and flourishing life.

Different Perspectives on the Problem at Hand

In this book I discuss in depth four ethical concerns that are raised with regard to the emerging and increasingly normalized practice of self-tracking. For the concepts that I have selected for my evaluation of self-tracking practices, I draw from the ethics of privacy, normative ethical theory, surveillance studies and social philosophy. I explore and apply four different perspectives; informational privacy, decisional privacy, surveillance and commodification, to interpret and evaluate practices of commercial self-tracking that involve quantification, surveillance and behavioural steering. Moreover, I explore to what extent these practices contribute to or undermine an agent's capacity to live an autonomous and flourishing life.

The central research question that guides my evaluation is:

‘What ethical concerns are raised
by the surveillance, quantification and behavioural change dimensions
of commercial self-tracking technologies,
with regard to an agent's ability to lead an autonomous life?’

This dissertation is structured in the following way. Rather than explaining the concepts of surveillance, quantification, behavioural steering and commodification in a conceptual overview within the introductory chapter, I elaborate on them in the subsequent chapters. Each chapter engages with and elaborates on these concepts through an investigation of self-tracking phenomena. These chapters each offer a different perspective for evaluating whether these features of self-tracking support or undermine the fulfillment of an autonomous and flourishing life.

I start with the theoretical assumptions that support my argumentation and how privacy protects a person's capacities to lead an

autonomous life. These capacities may be strengthened or undermined by these very concepts involved in the phenomena of self-tracking. The next chapters subsequently engage with the questions that the first chapter raises: what happens to the way we understand ourselves and our social relationships when commercial technologies complicate and influence our self-presentations? Do these technologies contribute to understanding ourselves as empowered, autonomous agents? Or, do we rather understand ourselves, as the woman from the Natural Cycles example, as consumers, objects or commodities?

Each chapter has the following tension as its starting point: on the one hand, disclosing information may empower users. On the other hand, we need privacy in order to be able to lead autonomous and flourishing lives. Therefore, this dissertation begins with an explanation of what I mean when I refer to privacy and autonomy. Does autonomy equal individual self-control or are there more competences that we should look out for when evaluating new technologies that promise to empower users? A fruitful way for analyzing the phenomena associated with self-tracking that I will discuss in subsequent chapters is a relational view on both autonomy and privacy. I argue that, apart from individual decision-making capacities, persons should have the ability to develop intimacy, and to develop different relationships, which are, in turn, important for developing autonomy. Moreover, privacy should also be understood as relational in the sense that it entails the capacity to disclose and present oneself autonomously in different social contexts, enabling the development of these different social relationships. Privacy, then, is a condition for the development of an autonomous and flourishing life.

Then, if the latter holds, how should we interpret the phenomenon of self-tracking in which users collect as much data about themselves as possible in order to increase their self-knowledge and to change their behaviour? In the next two chapters, I apply two types of privacy to self-tracking technologies and explore how extensive (self)surveillance and quantification for the sake of behaviour change may compromise one's autonomy. In Chapter Two I discuss 'informational privacy', or the ability to

(more or less) control and form reasonable expectations, who has access to one's information and to what extent. Access to detailed records about one's body and behaviour may empower one in some domains, such as one's personal health. Yet, because the culture of self-tracking stimulates disclosures to an unspecified audience (for commercial reasons) self-tracking may compromise this empowerment because it becomes increasingly difficult to control one's self-presentation per social context.¹²

Yet, is informational privacy sufficient to evaluate self-tracking technologies? Surveillance and quantification are not the only features of self-tracking. The information that is collected may be used to interfere with a person's decision-making process and to steer her behaviour and decisions. Commercial self-tracking technologies may engage in unwanted interference, steering behaviour by taking advantage of individual characteristics and social vulnerabilities for the sake of profit. In Chapter Three I propose that we should complement 'informational privacy' with 'decisional privacy': the ability to regulate who has access to interfere with one's decisions and to what extent per social context.¹³

While the previous two chapters discuss technologies that promise to improve our self-management, how should we evaluate technologies that promise to improve the management of our social relationships? In order to answer this question I first examine teenage girls' (10-20 years) ambiguous experiences with visibility on social network services (Chapter Four). How do the technological architecture, ensuing social norms and their underlying marketing practices of SNS shape their self-presentation and self-disclosure? And how does this impact their self-understanding and social interactions? Do social network services empower girls or do they reproduce and reinforce individual and social vulnerabilities, undermining their autonomy rather than supporting it?¹⁴

¹² This paper was originally published in *Ethics and Information Technology* (Lanzing 2016).

¹³ This chapter was originally published in *Philosophy & Technology* (Lanzing 2018).

¹⁴ This chapter was based on empirical research from the EGirls Project conducted by professor Valerie Steeves and professor Jane Bailey from the University of Ottawa and the Human Rights Research and Education Center.

Building on the latter, how should we evaluate the commercial influence of self-tracking technologies that change our understanding of social relationships and selves? To answer this question I evaluate two phenomena of commodification on dating app Tinder: ‘being on the dating market’ and ‘being on the data market’ (Chapter Five). I explore to what extent these phenomena entail inappropriate commodification and to what extent they contribute or inhibit an autonomous and flourishing life.

In the final chapter, I paint a systematic picture to get a grip on the problems that we are facing as a society in a quantified age. I do so by revisiting the four different perspectives, informational privacy, decisional privacy, surveillance and commodification, guided by the question how these might be connected. I start with an analysis of quantified self-relations and quantified social relations followed by an analysis of the potential implications of quantified selves and relationships for our society.

A Normative Critique

One of the challenges of writing an ethical evaluation of an emerging technology is the fact that one is aiming at a moving target. New technologies develop rapidly and the danger for scientific research lies in the fact that a technology that one has researched will have completely changed its core business or that it will be outdated or irrelevant by the time one has finished the analysis. Assessing the ethical concerns associated with emerging technologies is difficult because it requires anticipating future uses and consequences of the technology beyond mere speculation (Sollie 2007; Brey 2017).

There are many different methodologies proposed for the ethical assessment of emerging technologies such as Value Sensitive Design (Friedman et al 2013; Friedman & Hendry 2019), Privacy Impact Analysis (Strauss 2017) and Ethical Risk Analysis (Hansson 2017). Many of these assessments involve an empirical research component requiring case studies or stakeholder analyses involving qualitative research (Friedman & Hendry 2019; Hadorn 2017).

This research is an evaluation based on concepts from normative ethical theory. I did not carry out empirical research, although I conducted various interviews with self-trackers in the Netherlands at the earliest stage of my research in order to get a clearer idea about the practice of self-tracking. Nevertheless, this normative interpretation is informed by empirical research and concrete examples of technology.

Specifically, I use social phenomena associated with commercial self-tracking-technologies and practices as my starting point for interpretation (McLeod 2002). These are represented by cases or empirical research. I then interpret the practices around new technologies. This interpretation is always accompanied and motivated by a reflection grounded in ethical concepts that seem to be at stake based on the discussions that are raised in the empirical literature or my own analysis of these practices. For instance, when health apps claim to ‘empower’ users, when people feel ‘manipulated’ in the face of the Facebook Cambridge Analytica scandal, or when girls express that they are ‘a brand’ promoting themselves on Instagram, what do they mean and should we be worried? All these expressions contain normative statements. It is my aim to unpack these claims by offering a normative, critical evaluation of these phenomena using concepts from normative ethical theory, without implying that the practice only has one specific form. This approach acknowledges self-tracking as a changing practice while at the same time aiming to contribute an ethical evaluation that may retain its value in the future along with the development of these technologies and this practice. This also means that we should adjust, dust off or add to the concepts within our normative ethical toolbox in order to better capture the phenomena that we are researching.

Acknowledging that self-tracking is a changing practice leads me to use the term ‘mediation’ frequently throughout this dissertation, which I should first clarify here. I often assume or state that that ‘a technology [X] mediates or remediates a certain relationship’. Mediation theory describes and examines ‘how technologies shape relations between users and their environments’ (Kudina & Verbeek 2018; Rosenberger and Verbeek 2015; Verbeek 2005). This means that technologies should not be perceived as

mere objects that are used by human subjects. Technologies are mediators with regard to human practices and experiences (Kudina & Verbeek 2018). For instance, Peter-Paul Verbeek argues that ultrasound technologies have changed the relationship between parents and fetuses because the technology allows them to see and monitor them. Moreover, these new possibilities raise new moral questions about the status of the fetus and decisions regarding abortion for instance (Verbeek 2008).¹⁵

I use the concept of mediation to describe the phenomenon that technology impacts how we perceive the world, our relationships and ourselves. Moreover, I think this is a dynamic, dialectical process, in which the technologies are shaped in turn. By using the concept of mediation I want to emphasize that technology is social and political rather than neutral.

Moreover, this means that I reserve space for human agency in the course of technology development. In the light of the domination of powerful new technologies we should not become defeatists, but acknowledge that people design and co-shape technology. On the other hand, mediation also entails that we should not be afraid of the reciprocal impact between users and technologies. Technology changes (and has always changed) how we see the world and our relationships and that is not necessarily problematic (Boenink, Swierstra & Stemerding 2010). Consider the technology of anti-conception again and what it has meant for the empowerment of women.

Finally, I take an explicitly normative and critical stance when I interpret the phenomenon of self-tracking. I ground my argument in normative accounts of relational privacy and relational autonomy.

This dissertation contributes to the domain of privacy ethics by applying an account of relational privacy, rather than an atomistic view of individual data protection, to the field of new ICTs (Roessler & Mokrosinska 2015). It applies the concepts of relational autonomy and privacy to self-tracking technologies. These concepts enable me to provide a detailed

¹⁵ Importantly, Verbeek claims that moral agency involves both humans and technologies. While it is beyond the scope of this paper to address this issue, I would like to state that while I support the mediating role of technologies, I am hesitant to distribute agency across humans and technologies. For a more detailed discussion on this topic I refer to Illies and Meijers (Illies & Meijers 2009).

overview of the various promises and threats the phenomenon of self-tracking may pose to living an autonomous and flourishing life beyond the popular discussion about self-control and the meaning and absence of individual informed consent (however important) in the technological context of emerging ICTs. Moreover, each individual chapter broadens the ethical toolbox for evaluating self-tracking technologies. For instance, Chapter Three rehabilitates the concept of decisional privacy, countering the trend to evaluate new technologies on the basis of informational privacy, arguing that surveillance enables (unwanted) interference with one's decision-making processes. Overall, this dissertation aims to further research within the field of the ethics of technology. Specifically, it provides a thorough normative investigation of 'the transparent self', of changing selves and relationships under the influence of surveillance, quantification and behavioral change by commercial self-tracking technologies, which up to now, has been lacking from the literature.

Developing Intimacy

A relational perspective on privacy and autonomy*

Introduction

In Iris Murdoch's novel *The sea, the Sea*, retiring director Charles Arrowby, in an attempt to win back his childhood crush, Hartley, decides to spy on her and her husband, Ben.

“I had earlier rejected the idea of spying on Hartley and Ben, not for moral reasons, but because it made me feel sick with emotion and terror. A marriage is so hideously private. Whoever illicitly draws back that curtain may well be stricken and in some way that he can least foresee, by an avenging deity. Some horrible and quite unexpected revelation could persecute the miscreant henceforth forever with an almost obscene haunting. And I had to struggle here with my own superstitious horror of the married state, the unimaginable condition of intimacy and mutual bondage. However, the logic of the situation now forced this dangerous and distasteful adventure upon me. It was the next step, the attempt to answer the next question. I had to discover in so far as I could possibly do so, what this marriage was really like and what these two were for each other.”¹⁶

Of course the plan backfires. Charles' eavesdropping leads to further assumptions that fuel his conviction that Hartley is in an abusive relationship with Ben and should be with him instead. Yet, when he confronts Hartley, she is furious about the intrusion, exclaiming that it is the most hurtful thing anybody has ever done to her: ‘it's like a murder, a killing’, she cries.

Along with new information and communication technologies, it has become increasingly difficult to maintain and enforce privacy boundaries. Moreover, under the influence of new technologies, it has become difficult to

* This first chapter is partially based on my Research Master thesis: Lanzing, M. 2013. ‘Changing Norms of Friendship’. University of Amsterdam.

¹⁶ Iris Murdoch, *The sea, the sea*, 1978, Vintage Books London

control how the information that is tracked becomes subject to interpretation and assumption by (un)known others that previously did not have access to this information. Today, Charles would not even have to squat below windows or peek through keyholes: he would just Google ‘Ben’ and ‘Hartley’ and scour social media pages from the comfort of his home.

In this first chapter I make two claims. Firstly, social relationships are important for living an autonomous and flourishing life. Secondly, we need privacy norms for maintaining these different social relationships with different degrees of intimacy. These two claims contain the philosophical positions that this dissertation contributes to and builds on: relational autonomy and relational privacy. In other words, these claims contend that autonomy and privacy should both be viewed as relational concepts in general and that we should evaluate our social (-technical) environments from these relational perspectives in particular. Moreover, these claims assume that there is an important connection between autonomy and privacy. Privacy is the social condition for living an autonomous and flourishing life of which relationships are an important part. Moreover, the capacity to build intimate and caring relations requires an environment that offers privacy features. Privacy enables the development and exercise of this capacity, because privacy enables an individual to present herself and to disclose herself as she chooses in different social contexts, fostering different degrees of intimacy and thus different social relationships. The latter will be discussed elsewhere in this chapter.

In order to support these claims, I will proceed in three steps. First, I will argue that autonomy is relational to the extent that social relationships are necessary for a person to lead an autonomous and flourishing life.

Secondly, I shall maintain that developing these relationships requires self-disclosure, because self-disclosure fosters intimacy. I present both empirical as well as philosophical evidence for this position. I then continue by supporting the philosophical position that privacy is relational. Privacy entails the individual capacity of autonomous self-presentation or self-disclosure in different social contexts (Roessler 2005). We need privacy for developing different social relationships with varying degrees of intimacy

(Fried 1968; Rachels 1975). I conclude that privacy is the social condition for strengthening people's capacities to develop intimacy and meaningful social relationships necessary for an autonomous and flourishing life.

In the final section, I conclude that privacy and autonomy should both be understood as relational concepts and that privacy is a social condition for developing the latter. Furthermore, I argue that these relational accounts are helpful for evaluating the phenomena associated with self-tracking.

As I will elaborate upon in the first section, I adopt a weak version of relational autonomy. My conclusions should be valid for everyone who accepts that autonomy and privacy are to some extent relational, whether you adopt a weak or strong account of relational autonomy. In the following chapters, I show how self-tracking technologies undermine this relational dimension. Only philosophers who disagree that privacy and autonomy are relational at all will not agree with the conclusions reached in this dissertation. This saddles them with the task to present the counter argument that a non-relational account of privacy and autonomy is plausible and that such an account has the normative resources to address and articulate the problems and challenges these new technologies create.

1. Developing Autonomy: the Role of Relationships

Self-tracking technologies make claims about empowerment and improving one's self-management by increasing one's self-control. Yet, autonomy requires many more capacities beyond self-control that might be simultaneously undermined (Mackenzie & Stoljar 2000). In this section, I present my view on autonomy. I argue that autonomy is relational to the extent that social relationships are necessary for a person to lead an autonomous and flourishing life. Moreover, I argue that developing autonomy requires certain capacities to maintain meaningful relationships. As we will see, one of these capacities is autonomous self-presentation, which is enabled by privacy. This view is not controversial. Although theories differ

with regard to the extent to which relationships matter for autonomy, contemporary theories on autonomy take relationships into account.

This chapter will proceed as follows. I will first introduce my view on autonomy by discussing procedural and relational accounts of autonomy. My view entails a procedural account of relational autonomy. Such an account requires individual capacities to foster the relations that enable the development of their autonomy. In addition, I argue that my view of relational autonomy should be considered as ‘weak’ through a comparison of stronger accounts that claim that relationships are constitutive of autonomy.

Let us begin by focusing on my view of autonomy. Roughly, a person is autonomous when she can -more or less- direct her life based according to her own beliefs, convictions and values of what her life should look like, rather than being coerced or manipulated to lead her life in a certain way by other people (Christman 2009; Mackenzie & Stoljar 2000). Autonomy, then, entails self-government. However, this does not mean that one is autonomous when one is completely freed from outside interferences.

In this dissertation, I base my argument on a procedural account of relational autonomy. Procedural accounts focus on the capacities of the individual to be a competent decision-maker. Relational accounts of autonomy attribute more value to the social relations that shape a person’s decision-making process.

As we have seen, relational accounts can be strong, in the sense that relationships are constitutive of autonomy and require substantive social conditions. When I refer to autonomy, I refer to a ‘weaker’ account of relational autonomy. This weaker account entails that individuals are socially and historically embedded and require certain individual capacities to foster the relations that enable the development of their autonomy. Contrary to a strong account of relational autonomy, that claims that relationships are constitutive of one’s autonomy, a weak account merely entails that in order to safeguard individual capacities for autonomy, we require the social conditions that allow individuals to develop and exercise these capacities. Yet, as I stated earlier, my conclusions should convince

everyone who accepts that autonomy and privacy are to some extent relational.

So to what extent is my view on autonomy procedural and why? Procedural accounts of autonomy argue that the extent to which one is autonomous is based on a certain procedure of identification that individuals should follow with regard to certain desires they have (Frankfurt 1988; Dworkin 1988). In the words of Natali Stoljar, in accounts of procedural autonomy one's autonomy depends on whether one's values, thoughts or desires are 'authentic', one's own. Moreover, the procedure to discover whether this is the case is critical reflection and deliberation:

“Procedural conceptions characterize autonomous agents—agents whose preferences and desires are genuinely their own—as those who critically reflect in the appropriate way to evaluate their preferences, motives, and desires.” (Stoljar 2015)

An example is Harry Frankfurt's hierarchical theory of free will. Frankfurt's theory involves a procedure for establishing whether someone has made an autonomous decision based on a hierarchical structure of the will, which involves first order desires and second order volitions. An example of a first order desire could be the desire to 'check Facebook' and an example of a second order desire could be the volition to not want that first order desire to motivate one to action (and so we install the 'Freedom' –app on our devices, which, ironically, by putting restrictions on our Internet use can help us to act in accordance with our higher order volitions to 'not want to be motivated by the desire to check Facebook').¹⁷ One is autonomous when one has reflected on a 'lower' desire and identifies with that desire on a 'higher' level by wishing to act on that lower desire. If these two desires are in conflict then one cannot act autonomously.

The structure of the will then determines whether someone is autonomous, not the origin or the content of the desire. This means that it does not matter whether the content of the desire, for instance 'checking

¹⁷ See: <https://freedom.to/>

Facebook’, or the origin of the desire, ‘the omnipresent Facebook logo and its addictive design’ is moral or rational (Mackenzie and Stoljar 2000: 13).

Yet, while the pluralism in versions of the good life that an account of personal, procedural autonomy allows for is attractive, an account of autonomy should also take into account that decision-makers are socially embedded. We should take into consideration that our lower order desires but also our higher order volitions are influenced by our social contexts (Friedman 1986: 25).

Imagine Laura, from the novel *The Watch Tower* by Elizabeth Harrower. Laura is a smart woman who has dedicated her life to her husband Felix. She cleans the house, cooks his dinner and works for free checking the books in his business. She puts the fulfillment of his life projects and life goals above her own and she supports him as much as possible by foreseeing in all of his heart’s desires. When her sister asks Laura whether this is what she wants, she answers that she does.

This example resonates with the case of the Deferential Wife, a vignette introduced by Thomas Hill but made famous by Marilyn Friedman (Friedman 1985; Hill 1973).¹⁸ The example has been important for the development of a feminist critique of a ‘masculine’ procedural account of autonomy that relies on the privileged independence of a ‘rational individual’, bypassing social-historical (paternalistic) circumstances. Moreover, it has been important for the development of a relational account of autonomy, which is an umbrella term for theories that recognize the social aspects of our self-concepts and consider the social dynamics and power structures that influence autonomy to some degree (Mackenzie & Stoljar 2000; Christman 2009: 165).

Within relational autonomy there are different strands of thought with regard to the importance of the role of social contexts. Some theories insist that social relationships are constitutive of autonomy while others claim

¹⁸ It is a typical example of white, middle-class feminism, which of course has been criticized by authors proposing an intersectional perspective for problematizing a still privileged position, for instance, in comparison to black (transgender) wo(men) (Crenshaw 1991; Fraser 1992).

that they are necessary for the development of certain capacities we need in order to develop our autonomy. According to relational autonomy theorists, it is important to understand where desires come from and why people are motivated by certain desires: are they manipulated or the result of oppressive social dynamics?

If we strictly rely on the procedural aspect of autonomy, we do not have to question Laura's lifestyle. If Laura has the desire to prioritize her husband's life projects over her own and, after reflection, identifies with this first-order desire, she acts autonomously. But, should we not take into account the origin and content of these self-ascribed desires? Let me give an example.

When reading *The Watch Tower*, we learn that Laura has a mother who did not exactly encourage her intelligent daughter's education and instead pushed her to find a husband with the financial means to support her and her younger sister Clare.¹⁹ We learn that her husband is a controlling, manipulative and abusive misogynist who dominates Laura and Clare. While Laura has the rational capacities to devise other life plans, the social environment of 1930's Sydney deters Laura from leaving her husband and starting a life without him. Despite several opportunities to walk away from the situation and start a new life, even encouraged by her younger sister, Laura does not and even tries to convince Clare that this is the life she wants to lead.

This case raises concerns regarding the conditions of those capacities valued by procedural autonomy theorists. It seems that Laura's narrative includes a social environment and relationships that have had a strong influence on her desires and higher order volitions. It seems that an atomistic focus on the deliberative capacities of the individual agent makes it difficult to distinguish between oppressive, non-oppressive or empowering contexts of deliberation. Feminists such as Catriona Mackenzie, Natali Stoljar and Marina Oshana have argued that a theory of autonomy should take into account the influence of either empowering or oppressive social contexts (Mackenzie & Stoljar 2000; Oshana 2005). Empowering social contexts

¹⁹ *The Watch Tower*, Elizabeth Harrower, 1966, Text Classics

would enable the development of an autonomous and flourishing life. Oppressive contexts undermine this.

The question arises to what extent social contexts are constitutive of relational autonomy. Some authors argue that social contexts are essential for relational autonomy (Oshana 2005). For instance, Oshana would claim that Laura is not autonomous because of her full dependency on unequal and oppressive social relationships (Oshana 1998; 2005). She argues that in addition to certain procedural capacities for autonomy, such as competence, autonomy requires relational conditions, such as meaningful options that develop one's capacities and substantive criteria, for example, self-respect (Oshana 2005). Other authors have proposed 'weak' substantive criteria for these social contexts to ensure that they are supportive rather than oppressive (Anderson & Honneth 2005; MacKenzie 2008). Joel Anderson and Axel Honneth claim that social recognition is vital for decision-making competences because it ensures confidence or self-respect as a competent decision-maker. Furthermore, Catriona Mackenzie implies that social conditions for autonomous life should include viable options and realistic alternative perspectives with regard to the life one is living (MacKenzie 2008).

While I sympathize with the idealism reflected in these substantive criteria (which we should strive for), they are also very demanding criteria. In particular, the substantive account put forth by Oshana results in an overly strict conception of autonomy that reflects an admirable ideal but, in its perfectionism, would exclude many from being taken seriously as autonomous agents. Does Laura lose her status as an autonomous person altogether because she lives under the oppressive circumstances of a patriarchal society? Not necessarily. There are plausible arguments that support a weaker account of relational autonomy that do not take social relationships to be constitutive or essential of one's autonomy. For instance, such an account may argue that oppressive social contexts do not necessarily preclude autonomy. What might be wrong with Laura is not the fact that she lives under circumstances of unequal social relations. It seems that she can still reflect and endorse her life choices and this matters. The reason why this

matters, according to a weaker account, is because we want to be careful about who we call autonomous or not. One might for instance criticize women who advocate that women should not vote, such as the women who are members of the Dutch religious, fundamentalist Christian party SGP and only recently were ‘allowed’ to become politically active within the party. However, to state that these women are not autonomous while they can reflect and endorse the values they grew up with is wrong. To do so would be to disqualify them as agents and participants of deliberation and debate (Christman 2009: 175).

So, when do we lose autonomy? When we can no longer see ourselves as authors of our lives due to oppressive social relations that suppress one’s voice and judgment. When one’s life is not one’s own (Christman 2009: 172). One might argue that Laura is not autonomous in this sense because she has been systematically brainwashed into a Stepford Wife, under the command of an authoritative regime that leaves no room for authorship. Of course, the more authoritative they become, the more difficult it might be for subjects to identify with their lives and to claim authorship within these social relations.

Yet, unequal, hierarchical or oppressive social circumstances do not preclude autonomy per se. Moreover, autonomy is not a case of ‘either/or’. If competences largely determine one’s autonomy, it seems that autonomy is a matter of degree and that one may be more or less autonomous in certain respects or circumstances (Anderson 2014). One can feel more or less the author of certain aspects of her life. Many of our grandmothers would not have been able to decide to pursue a scientific career. Although this may (rightly) be perceived as extremely limited, they may have been in charge of raising their children and make financial decisions. While we can strive for the ideal, autonomy in an every day sense is imperfect.

In sum, a hyper-individualized reflection and deliberation is not sufficient for a theory of autonomy. A theory of autonomy should acknowledge that individuals are historically and socially embedded. Yet, we also want to stress and respect the individual’s capacities for decision-making. Christman has developed a hybrid account of autonomy that is

procedural and relational. He argues that autonomy involves competence and authenticity. An agent is competent when she can form effective intentions for actions and when she can critically reflect upon the desires that motivate her. To that end she should be able to enjoy ‘competences’ that help her to form effective intentions such as minimal rationality, freedom from mental pathologies, minimal self-control, motivational effectiveness and access to minimally accurate information (Christman 2009: 134). ‘Authenticity’ entails that an agent is not alienated from her socio-historical narrative when she reflects upon (the origin of) her desires, such as would be the case under manipulation or coercion by others. If she is, she should be able to distance herself from these desires or change them. This reflection should not be constrained by factors that distort it.

These competences can only be developed and flourish within supportive social environments. This means that we should pay attention to the preconditions for developing deliberative capacities but also to the conditions for exercising these deliberative capacities once they have developed. For instance, it matters whether an environment plays a manipulative or coercive role with respect to one’s decision-making process. Social conditions are important for developing the capacity for making one’s own decisions and to ‘protect the ongoing interpersonal and social relationships that define ourselves’ (Christman 2009: 184). We need relationships in order to flourish and become autonomous human beings.²⁰

Then, the conditions for making decisions should include a procedural focus on the individual capacities that foster and maintain meaningful relationships, such as care, intimacy and social interaction (not only capacities such as self-control or rationality) (Christman 2009: 177). Without these capacities, it will be very difficult for a person, as a socially embedded individual, to lead a life of her own.

In other words, we need the capacities to foster the human relationships and interactions in which we can develop autonomy. Who we

²⁰ John Christman’s procedural account proposes that autonomy is not essentially, but only causally relational (Christman, 2004: 145; Christman 2009: 167; Dieterich 2016: 42).

are, or what we consider to be our ‘authentic’ selves should be viewed in relation to the people we care about and the communities we live in (Nedelsky 1989; Tietjens Meyers: 22). Social conditions, social structures and the support and care of others enable us to develop the desires, beliefs and values that we identify with. As we discussed, authenticity or the ability to identify with one’s values, beliefs and desires (as opposed to being alienated from them) is an expression of an autonomous life (Christman 2009). Moreover, autonomy is an important part of living a flourishing life. A flourishing life is one in which we can, more or less, develop our capacities, choose our own life projects, pursue self-chosen, meaningful social relationships and formulate our own versions of the good life (Roessler 2019).

In conclusion, I rely on a procedural account of autonomy that acknowledges the necessity of social relationships for the development of a person’s autonomy. Moreover, I think that some of the conditions for an autonomous life include the strengthening of individual capacities that enable us to foster and maintain meaningful social relationships. I will use this account as the underlying normative resource to evaluate the social-technical environments of new ICTs that track, steer and quantify our selves and relationships. In the following sections, I argue that social-technical environments that support, rather than undermine, autonomy should support the capacity for autonomous self-presentation, or the ability to choose what one wishes to disclose, as part of the process of fostering and maintaining self-chosen relationships. Making this point requires a relational theory of privacy as well, which I will elaborate on in the next section. Yet, before I do so, I will first argue that self-disclosure is an important condition for the development of (different degrees of) intimacy necessary for building relationships.

2. Relational Privacy: Differentiating Relationships

Hartley is furious when she finds out that Charles has been spying on her and Ben.

“

‘How can you – you don’t know what you’ve done- how could you push in, spy on us like that-it was nothing to do with you- how could you intrude into secret things which you couldn’t possibly understand – it’s the wickedest vilest most hurtful thing anybody’s ever done to me-’

‘Hartley darling, you know I only did it to help, I mean because I had to know. I had to be sure, to be certain-’

‘As if you could know anything – oh you’ve hurt me so much, I’ll never forgive you, never, it’s like a murder, a killing – you don’t understand – Oh, it hurts so much, so much-’

”²¹

Charles has invaded the privacy of Hartley’s relationship with Ben, listening in on their intimate conversations. Hartley is outraged. But, what exactly is problematic about Charles’s behaviour? Perhaps people who grew up with social media and health apps find Hartley’s response exaggerated: checking each other’s profiles and commenting on each other’s activities are normalized practices. In other words, what is the value of privacy and do we still need privacy norms in a digital age? In this section, I argue that privacy enables the development of different degrees of intimacy. Intimacy is important for developing and fostering different social relationships. As we learned from the previous section, different social relationships are important for leading an autonomous and flourishing life. Importantly, I argue in this section that this makes privacy an important social condition for leading an autonomous and flourishing life.

I shall proceed as follows. I will first argue that self-disclosure plays an important role in building intimacy. Then, I will argue that privacy enables us to disclose ourselves as we choose and to present ourselves autonomously in different social contexts. I will argue that privacy is relational and should be conceptualized as a social condition rather than the individual ability to withdraw. Privacy does not only protect the intimate

²¹ Iris Murdoch, *The sea, the sea*, 1978, Vintage Books London

thoughts and actions of individuals but also mediates the relationships between people, enabling different types of social relationships with differing degrees of intimacy. This also matters in a digital age, I conclude, by arguing that privacy is an important social condition for living an autonomous life because it enables the development of different social relationships.

2.1 Building Intimacy: Self-Disclosure

In the previous section we learned that relationships are important for developing an autonomous and flourishing life. In order to develop these relationships, we need capacities that foster these relationships, such as the capacity for intimacy. Self-disclosures are important for fostering intimacy. Let us start by examining self-disclosure and how self-disclosure may foster intimacy. In this section, I present empirical and philosophical evidence that self-disclosure is necessary for building intimacy. Then, I tie the role of self-disclosure to my conceptualization of relational privacy, as the capacity for autonomous self-presentation, which drives the argument of this dissertation.

Kathryn Greene states that self-disclosure is an interaction between at least two people and entails the voluntary and intentional disclosure of personal information to another person (Greene et al 2006: 411). Based on the previous section, I would like to add that self-disclosures do not only entail sharing or granting access to personal information, but also to decisions (interference), spaces (homes) and bodies (physical intimacy). We tell our friends about our dreams, let them embrace and kiss us and allow them to give advice on whether to reconnect with an ex-partner.

Irwin Altman and Ervin Goffman have argued that we mediate different social relationships by presenting ourselves differently according to each (Altman 1975; Goffman 1959). Charles Fried argues that we mediate different degrees of intimacy, and therefore different social relationships, by disclosing ourselves differently according to different social spheres (Fried 1968: 210-211). As friends, for instance, we express ourselves in a context of

mutually shared information and we might argue that this is ‘intimate information’, information that one only shares with their close friends.²²

Self-disclosure, then, shapes the character of our social relationships. It is the mutuality of self-disclosure that induces the development of an intimate relationship. An exclusive disclosure to one special recipient will induce the recipient to like the discloser. You can interpret these disclosures as ‘gifts’: they are meant for fostering intimacy for the sake of developing a certain social relationship. The recipient recognizes and appreciates the openness and corresponding vulnerability of the discloser. Someone who discloses makes themselves vulnerable to interference and being controlled by another rather than being motivated by their own reasons, beliefs and values (Reiman 1995). I address this argument in Chapter Three when I discuss decisional privacy in the context of ‘hypernudges’. In a relationship, we always have to balance our personal needs to be open to people with our wish to stay ‘autonomous’ and ‘independent’ by concealing private information. It is a significant act when someone opens up. It makes oneself vulnerable to another person. This act develops feelings of liking and caring (Greene, Derlega & Matthews 2006: 411). Moreover, when the ‘gift’ is mistreated, spread around carelessly for purposes of gossip for instance, or turned into a ‘commodity’, when the disclosure is instrumentalized to acquire status or profit, the discloser may feel betrayed and harmed. I return to this argument in Chapter Five, when I argue that many of our ‘gifts’, our disclosures, are commodified and that this has implications for the way we understand ourselves and our social relationships.

²² Fried’s theory that self-disclosures shape the character of our relationships has been challenged by Julie Inness and Jeffrey Reiman. The reasons are that Fried’s seems to suggest that some acts are essentially ‘intimate’. Moreover, it represents an underlying behaviourist line of reasoning: if I behave in a certain way [X] then relationship [Y] is the result (Inness 1992: 74). Both Inness and Reiman state that intimacy claims precede acts of self-disclosure. While they make a good point I think it is exaggerated to state that scholars like Fried explain the development of close relationships in terms of a ‘recipe’ for behaviour. Obviously the development of intimate relationships is a complex phenomenon that cannot be reduced to particular acts. At the same time, sharing and disclosing are in many instances important elements of the development of feelings such as liking and care that constitute an intimate relationship.

How people disclose and react to disclosure is very important. Within an intimate friendship for instance, both parties feel understood, validated and cared for. Therefore, the style, timing, context and the content of both the disclosure and response are critical to the experience of intimacy. It is important whether you meet face-to-face, at home or in a café and whether you are direct or indirect in your communication. These choices vary according to different social relationships (Greene 2006: 418-420).

Now, commonly acknowledged aspects of an intimate relationship are trust, deep and mutual feelings of benevolence (caring, loving and liking) for each other, empathy and an interest in each other's welfare. Our desire to share meaningful experiences draws on these feelings. Therefore spending time together and share activities, in which people mutually disclose themselves and allow each other to weigh in on decisions, are the vehicles through which we initiate and reinforce these feelings that are constitutive of intimacy.

2.2 Privacy is Social

Self-disclosures are important for building intimacy. In this section I elaborate on this argument by adding that being able to choose whom to share what disclosures with is an important capacity fostering different types of social relationships. I argue that privacy norms enable this capacity for autonomous self-presentation. Privacy then is not merely an individual right or responsibility, but relational and a social condition for living an autonomous life.

I will first emphasize the social dimension of privacy. Most conceptualizations of privacy revolve around the protection of individual autonomy. The earliest conceptualization of the right to privacy was famously introduced as the 'right to be left alone' by the two attorneys Samuel Warren and Louis Brandeis (Warren & Brandeis 1890). To conceptualize privacy against an individual having 'no access' to another's

private life and later one's body, decisions, thoughts and information seemed consistent with a liberal approach (Reiman 1995).²³

However, conceptualizing privacy as 'being left alone' or 'no access' was soon rendered inadequate without the notion of 'control' (Westin 1969). After all, would we call someone marooned on a deserted island as someone experiencing ultimate privacy? There seems to be something wrong about claiming that someone who is deserted and isolated has 'privacy' (Fried 1984). Privacy seems to only make sense in the context of a community and relationships. In Alan Westin's words, one has privacy when an individual, group or institution is able to determine for themselves when, where, how and to what extent, information about them is communicated to others (Westin 1969).

The 'control access' view has been broadened by philosophers such as Beate Roessler who argues that 'something is private if one can control the access to this something' (Roessler 2005:71). This something can be anything including intimacy, information, bodies, behaviour or decisions. Importantly, this means that privacy has multiple dimensions beyond informational privacy such as decisional, behavioural, locational and bodily privacy (Koops et al 2017). Bert-Jaap Koops et al suggest that informational privacy should be understood as the basic dimension, which is always complemented by one of the other privacy dimensions. I will discuss and apply this theory in Chapter Three in the context of 'hypernudges'.

²³ Feminists (Allen 1988; DeCew 1997 & 2016; Gavison 1992; MacKinnon 1989; Pateman 1989) have famously resisted the liberal private-public distinction, arguing that the distinction between the private and the public undermines the autonomy of women because this distinction is gendered. Women have been confined to the private sphere of the home. Arguing that this sphere should be free from outside interference has harmed women in the form of rape and abuse within the 'privacy of the home'. For instance, for a long time women were not protected against rape within the bonds of marriage, because marriage is 'private' and part of the private sphere of the home. Marital rape was declared illegal in the Netherlands in 1991 and in the United States in 1993. Moreover, this distinction is treated as a natural distinction, while it is a conventional one that we can change. Catherine Mackinnon has notoriously suggested that we should not change it, but 'explode' it for the sake of gender equality. This suggestion raised a debate amongst feminist privacy scholars about the value of privacy for social relationships and intimacy.

‘Controlling the access to something’ implies the presence of a social context; of ‘others’. Privacy only makes sense within a society, in which groups or individuals have to demarcate boundaries and regulate access. Privacy is not merely an individual procedure of decision-making, but a social condition for social contexts. Privacy then is not solely an individual responsibility but a social responsibility that exists within social interaction guided by privacy norms. Privacy norms are dynamic, social rules and expectations about what we share (information, decisions, bodies or homes), with whom and in which context. They govern interactions within particular social contexts and provide individuals with the freedom to choose how to present themselves, to choose and shape their relationships and to make their own choices without unwanted interference (Nissenbaum 2009; Steeves 2009). In other words, privacy is an important social condition for living an autonomous life.

So, privacy should be understood as relational. Let me support this argument by exploring the role of privacy in fostering social relationships. As I stated, privacy enables people to control (to some extent) their self-presentation, what they disclose and to whom. As discussed, each domain requires different patterns of behavior because every single relationship maintains different norms of appropriate behavior.²⁴ These patterns define the different social relationships. The domain of friendship involves special feelings of care and therefore special obligations. As we discussed, we disclose to our friends parts of our personalities that we do not disclose to just anyone (Rachels 1975: 294).

We need privacy to develop meaningful or appropriate interaction between people within different social relationships with different degrees of intimacy: friendships, romantic relationships, physician-patient relationships, employer-employee relationships, etc. Moreover, we need it to understand ourselves as friends, lovers, patients, colleagues or parents. We need it to

²⁴ Of course, what is considered appropriate behavior in a certain social relationship may differ among communities and it may change over time. However, the point is that the way in which you perceive a social relationship is directly connected to a conception of appropriate behavior.

understand ourselves as autonomous, as able to move between and express ourselves within different social roles. Intruding upon these relationships by illicitly listening in to these disclosures undermines the intimacy of the relationship, distorts the relationship and our self-understanding. A violation of privacy norms amounts to the undermining of someone's autonomy.

When Charles eavesdrops on a conversation between Hartley and Ben, he violates the norms of privacy that mediate a romantic relationship. The disclosures made might not, in this instance, be able to foster their romantic relationship. Moreover, as Charles suggested himself, marriage is hideously private. One's self-understanding as a lover within a romantic relationship is a very vulnerable and very intimate type of self-understanding. Perhaps this is also what Hartley refers to when she screams murder (although a little exaggerated). She might have been embarrassed about what Charles had heard. She might have behaved differently, had she known that someone else was near.

In any case, Charles has wounded her dignity by violating her privacy. He intruded upon the intimate relationship with her husband without her knowledge and without her consent. Hartley's (and Ben's) autonomous self-presentation has been undermined and the disclosures she made for the sake of having an intimate conversation with her husband have lost their value. Charles has interfered with something that he was not invited to interfere with and has harmed the relationship.

Fundamental relations like respect, love, friendship and trust are inconceivable without the context of privacy (Fried 1968: 205). Imagine everything one says, thinks or does would be visible and accessible. Would you still whisper the same things to your partner? If you cannot be sure whether people are listening, your freedom to act in an appropriate way with regard to the relationship is constrained.

Fried argues that disclosure creates the moral capital that we spend on our friends and lovers, for instance by sharing information that we would not just share with anybody:

“A man who is generous with his possessions, but not with himself, can hardly be a friend, nor can the man who, voluntarily or involuntarily, shares everything with the world indiscriminately.”
(Fried 1968: 211)

Secondly, privacy is also necessary for our freedom to define ourselves. Some things are better undisclosed, because as soon as we express them, we make them part of ourselves and part of our relationships.

Jeff Reiman and Julie Inness have dubbed Fried’s relational privacy account as the ‘commodity view’ on intimacy in which actors trade off exclusive, scarce information only with those we want to be or are in an intimate relationship with (Inness 1992: 81; Reiman 1976: 8-9, 11). I think this is exaggerated. Although Fried refers to disclosure as ‘moral capital’, I understand this in terms of ‘gift’ exchange rather than as instances of ‘commodity’ transactions. Reducing self-disclosure theory to a theory of market exchange misses the point in creating intimacy. As I suggested earlier, only ‘gifts’ given for the sake of the relationship can create intimacy. I will elaborate on this argument in Chapter Five. Framing self-presentation and disclosures as ‘commodities’ rather than gifts within particular relationships has led to unbridled consumer surveillance and distorts how we understand ourselves and our social relationships.

Inness argues that privacy entails autonomy with respect to how we choose to express our love, liking and care (Inness: 1992: 91). Inness argues that privacy then protects actions that are expressions of love, care and liking: intimate acts. I agree with the first statement, but as I argued earlier, self-disclosures is a necessary condition for developing these feelings, thus creating intimacy. Privacy norms enable people to present and disclose themselves autonomously, which is necessary for developing relationships.

Privacy norms are both social constructs and dynamic. However, over time, they tend to sediment into ‘reasonable expectations’ regarding, for instance, information sharing. Under the influence of new technologies, privacy norms can become subject to negotiation between social actors. Privacy is often dependent on whether other social actors understand and respect the privacy norms that govern a particular social relationship. For

instance, Charles clearly violates a privacy norm when he eavesdrops on Hartley and Ben. Instead, he should have respected the social context. One can also think about, for example, ‘lurking’ on someone’s Facebook page scrolling through all their pictures and their friend’s comments (although these norms change, see Chapter Four). Privacy can only be maintained when other people are willing to withdraw from intimate interaction and allow some social space that respects their intimacy. Therefore privacy has a dialectical nature (Steeves 2009: 206). Whether one can maintain a particular relationship in a certain way requires that privacy norms are respected. That does not mean that it is unclear what norms govern a social context. While they change and while they might be negotiated, it is commonly clear what the context requires. For instance, we can form reasonable expectations with regard to how an employer, friend or lover should behave within their respective relationships.

Importantly, I do not argue that intimacy is necessarily fostered by exclusive content. I argue that intimacy is fostered by wanting to share a certain piece of information or a certain decision with this or that person *exclusively*. Of course, there are certain acts of disclosure that we generally consider intimate and exclusive, for instance, getting undressed before one’s partner. However, I do not argue that there are certain acts that are inherently intimate and have the *inherent* power to foster intimacy or a particular relationship. We can imagine other cultures or times in which certain acts were considered intimate that we currently do not regard to be intimate. For instance, for women, showing an ankle was considered scandalous before and during the Victorian and Romantic eras (and before). Ankles were intimate territory -though women wore dresses with plunging necklines. Now, showing cleavage is something to carefully monitor when girls put up pictures of themselves on Instagram in order to be called ‘pretty’ rather than ‘slutty’, as we will see in Chapter Four (see also Steeves 2016). What we consider to be intimate is subject to change.

Furthermore, I also do not argue that there are general *classes* of behaviour that are inherently intimate. If one claims that ‘how to raise your children’ is a general class of inherently intimate behaviour, then this leads to

problems when one is confronted with child-abuse (Inness 1992: 76). This critique is reminiscent of the feminist critique on privacy as a natural sphere distinct from the public sphere.²⁵ I side with the argument that there is no essence present in this or any general class of behaviour that can denominate specific acts or behaviour as intimate.

Which acts we consider intimate, or expressive of an intimate relationship is also socially constructed. When we share information or decisions with other people, we think these disclosures are appropriate for and expressive of the relationships we have. As we learned from Green et al, while we disclose, we affirm with this act the relationship we have and develop the corresponding feelings. The way in which we express our feelings is based on common social norms about how to appropriately express feelings within a certain social relationship. For example, because it is a social norm to share information about our marital problems with intimate friends only, this act would affirm or suggest that relationship and could therefore be called 'intimate information'. The information is not intimate in and of itself, but because it is an expression of a relationship. By controlling how we self-disclose, as the necessary (but not sufficient) conditions for nurturing feelings of care, love and liking, we can foster these feelings and develop different degrees of intimacy.

Nevertheless, I want to repeat that the content of an act is not irrelevant. Some disclosures make us more vulnerable, they reveal more about our personalities and open up the opportunity to others to influence our desires, beliefs, decisions and actions. While this is subject to change, some acts of disclosure can be more significant than others. To what degree we make ourselves vulnerable to others, is important for the character of the relationship making some relationships more intimate than others. Moreover, we can differentiate. For example, we do not share the same acts with all our intimate relationships even though all of these acts may flow from feelings of love, care and liking. Generally, we would not let our parents read our love letters (or run through the WhatsApp history with our

²⁵ See previous footnote on feminist critique on the public/private distinction as a natural rather than a socially constructed and gendered distinction.

partners), even though we might have an intimate relationship and would value this act as one of love and caring. In fact, our parents would not even *want* to read our love letters (and vice versa!), because these acts would transgress social norms and therefore distort the relationship.

Now, let us evaluate the value of privacy in relation to autonomy. I do not assume that privacy has intrinsic value but rather stands in a functional relationship with autonomy. This means that while I think that privacy cannot be reduced to another value, the reason *why* we value privacy is rooted in a different value or norm, such as autonomy. The answer to the question why we value privacy could be that privacy protects certain aspects of autonomy (for instance autonomous decision-making, self-development or self-presentation in different social contexts) and that without privacy, these aspects of autonomy cannot be exercised (Roessler 2005).²⁶

The value of privacy then lies in its function as a social condition developing different, meaningful relationships. This is a relational privacy approach that conceptualizes privacy as a social condition, while attributing importance to the individual's capacity for self-presentation. This is important, because, as I have argued, we need these relationships for developing an autonomous and flourishing life. Privacy and autonomy must both be understood as relational. Moreover, they are tightly linked. Privacy is the social condition for living an autonomous life.

So, what happens when our privacy norms change as a result of the surveillance, quantification and behavioural steering features of new commercial self-tracking technologies that promise to manage our selves and our social relationships? The argument that I develop in this thesis is that changing norms of privacy transform how we understand ourselves and our social relationships. Privacy norms govern our relationships, so if they disappear or transform, this impacts the way we uphold and differentiate between relationships. Then, how should we evaluate these self-tracking technologies against the backdrop of relational privacy and autonomy?

²⁶ I address the relationship between privacy and autonomy more in depth in Chapter Three.

3. Evaluating New Information and Communication Technologies

The concepts relational privacy and relational autonomy will help to analyse the phenomena associated with the practice of self-tracking. Self-tracking technologies promise to empower and improve one's self-management by increasing individual user capacities for decision-making and self-control. Think about how Facebook's algorithms can help us navigate news articles we are interested in, avoiding the pitfalls of information overload or how wearables enable us to follow through on the fitness goals we set for ourselves, enforcing our higher order volitions beyond our immediate desires to crash on the couch with a bag of potato chips. 'There's a better you in you', says a recent Apple Watch advertisement. 'How you spend your day determines when you reach your goals. And seeing your progress helps you see what's possible', says FitBit on their homepage.²⁷ Users provide their data in order to empower their decision-making processes and behaviour in order to live their lives as autonomously as possible.

In this dissertation I investigate to what extent these claims are valid. Technologies that promise users to improve the management of their 'selves' and their social relationships by quantifying their behaviour based on extensive surveillance offer opportunities and simultaneously raise ethical concerns with regard to the development of autonomy. On the one hand, these technologies may strengthen one's capacity for self-control and empower users by offering social environments where one can build communities with like-minded people. On the other hand, these technologies may engage in and encourage extensive (self)surveillance, steer the behaviour and decisions of users and commodify the resulting quantified selves and quantified relationships, undermining rather than supporting user's capacities for self-chosen self-disclosures and presentations. While self-control is important for living an autonomous life, it should not be the only criterion whether new ICTs are empowering. Autonomy requires many

²⁷ <https://www.fitbit.com/nl/whyfitbit>; see also Apple Watch 4 There's a Better You, accessed at: <https://www.youtube.com/watch?v=BgJb-P1kVi4>

more capacities that might be simultaneously undermined, such as the capacity for developing meaningful relationships.

The value of privacy is that it is a social condition for the development of relationships. What is appealing about accounts of privacy that recognize privacy as a relational concept, is that they take into account the influence of the social environment as a factor in acts of self-disclosure. They recognize that the social context for data sharing can be both empowering and oppressive for one's self-presentation, depending on the social structures present on SNS.

On the one hand they can recognize that the visibility and peer surveillance facilitated by new ICTs can be valuable for building a community and meaningful sociality. ICTs can be empowering means for identity construction -for instance, because it allows one to experiment with one's self-presentation in different kinds of social contexts – and social recognition.

On the other hand, by emphasizing the social dimensions of privacy these accounts can criticize quantification and surveillance aspects of new ICTs for being oppressive rather than a form of agency supporting social-technical environments. For instance, Instagram may not offer girls the capacity for autonomous self-disclosure because its architecture promotes and reproduces stereotypical feminine behaviour. This impedes meaningful self-presentation because it leads to self-surveillance that is influenced by social contexts that only support particular types of self-presentation and only recognize certain social identities (that only allow for limited participation in their construction). Rather than developing meaningful social relationships, one could argue that this disempowers girls because it reifies gender norms within their social interactions (see Chapter Four and Five).

The ICTs that I discuss throughout this dissertation are all technologies that are social-technical environments in which people participate on a daily basis for a longer period of time, tracking and improving their health and fitness goals, managing their social contacts or seeking romantic matches. It seems that conceptualizing privacy as a

consent-form with regard to datacollection and advertisements when downloading the app or buying a wearable is insufficient to capture and evaluate the interactions on these platforms.

Moreover, the concept of relational autonomy will be a helpful background for evaluation. As I stated, while individual decision-making and individual control are important aspects of autonomy, they are not the only dimensions of autonomy. Relationships play an important role in developing our autonomy and personhood. So, when we evaluate new ICTs that promise to manage your 'self' and social relationships and change how we understand ourselves and our social relationships, we need to interpret phenomena of quantification, surveillance and behavioural steering by not only evaluating whether ICTs strengthen one's self-control, but also evaluating whether these ICTs strengthen user's capacities to develop intimacy in order to establish meaningful relationships.

In sum, we should interpret and evaluate new commercial ICTs that involve surveillance, quantification and behavioural steering within our intimate relationships from the perspective of relational privacy and a procedural, relational account of autonomy. Privacy should be understood as the social condition for strengthening people's capacities to develop intimacy and meaningful social relationships necessary for an autonomous and flourishing life, such as self-chosen self-disclosure and self-presentation. This is a procedural view on the relationship between privacy and autonomy to the extent that privacy is the capacity to disclose oneself autonomously in different social contexts. At the same time it is also relational because privacy enables the capacities to develop the relationships that are important for living an autonomous life.

Relational accounts of privacy and autonomy will help to analyse the phenomena associated with the practice of self-tracking. If we want to evaluate whether a technology is empowering, we should also pay attention to whether a social-technical environment supports rather than reduces a person's capacity to develop different degrees of intimacy: to disclose in a way develops rather than undermines developing different, meaningful social relationships. This should also provide us with more arguments that will help

us to avoid framing ‘privacy’ as an individual problem or issue that we might be able to solve by demanding informed consent, but rather as a complex social problem.

This chapter serves as the clarifying background for claims and arguments I make about the connection between privacy and autonomy throughout this dissertation. In what follows, I will reiterate these themes in greater detail.

In the next four chapters I will address ethical concerns that are raised by the practice of commercial ICTs that promise to improve one’s self-management and the management of one’s social relationships by evaluating the ways in which quantification, surveillance, behavioural steering and commodification shape their social-technical environments.

I will use four different perspectives: informational privacy, decisional privacy, surveillance and commodification. I argue that practices such as quantification, surveillance and behavioural steering influence and interfere with how we present and disclose ourselves. Furthermore, I argue that these changing norms of privacy affect how we understand ourselves and our social relationships. At best, this transformation yields empowering results, strengthening someone’s capacity for improving their health or finding the love of their life. At worst, changing norms of privacy may lead to (self)-reification and an exacerbation of social inequalities and individual vulnerabilities rather than meaningful relationships that develop autonomy and help lead a flourishing life. I will start with an analysis of the Quantified Self and the practice of self-tracking from an informational privacy perspective.

2

The Transparent Self

Self-tracking, autonomous self-presentation and informational privacy*

Introduction

Wearable computing, automated data gathering and greater and inexpensive data storage capacity have spurred the practice of self-tracking. Self-trackers wear digital self-tracking devices that measure and monitor aspects of their bodies and everyday activities (Till 2014). The data is stored and can be shared, monitored and interpreted by the user, which gives rise to a new ‘range of relations to the self: the ‘quantified self (QS)’ (Lupton 2013). Self-tracking is promoted as a means to self-knowledge, self-improvement and self-control: as strengthening autonomy.²⁸

Yet, the notion of ‘self-tracking’ is somewhat misleading. Although self-tracking appears to entail merely self-surveillance, it actually conflates self-surveillance with co-veillance and surveillance. Sharing one’s data with peers is encouraged and producers of self-tracking devices often track what these devices are recording by default. The data produced by self-tracking is increasingly shared and used outside its usual contexts. Therefore, self-tracking raises normative questions. How should we interpret technologies that encourage and facilitate extended transparency?

This chapter provides the first perspective for addressing ethical concerns related to commercial self-tracking technologies: informational privacy. Self-trackers celebrate the potential for self-governance by disclosing their personal information. Building on Chapter One, I argue that there is a tension between the idea that one should disclose personal information in

* This chapter is based on: Lanzing, M. 2016. The Transparent Self. *Ethics and Information Technology*. (18:1) pp. 9-16.

²⁸ This chapter makes a general assumption that self-control, self-knowledge, self-improvement and the popular notion of ‘empowerment’ often employed by self-trackers are notions that are strongly related to and important for the concept of autonomy.

order to gain more self-control and the informational privacy one needs to live an autonomous life.

I shall proceed in four steps. Firstly, I describe the cultural phenomenon of self-tracking, including its promised autonomy in order to set the stage for my evaluation from the perspective of informational privacy. Secondly, I show why self-tracking technologies raise new concerns about informational privacy. Old norms and expectations are often mistakenly applied and relied on in the context of new technologies. I argue that self-tracking should not be perceived as ‘keeping a digital diary’ and should not be understood in terms of conventional, contextual expectations regarding informational disclosures which belong in a medical context. Thirdly, and relatedly, I will argue that the culture of self-tracking fosters “decontextualization”: it enables the flow of information across contexts, which enables parties to access information that they previously did not have access to. Fourthly, I explain why this is problematic. I argue that the culture of self-tracking breaks down informational privacy boundaries that otherwise enable autonomous self-presentation within different social contexts.

1. Quantified Self: the Practice and Promise of Self-tracking

Self-tracking (also known as life-logging, personal analytics and personal informatics) is often referred to as ‘quantification of the self’: a means to grasp insights about one’s self based on objective data, generated by quantifying aspects of your self with the assistance of digital devices and applications that measure aspects of one’s body and activities. The data is recorded, stored, monitored and interpreted by the user (Lupton 2013: 25). At the same time, these technologies are often connected to external online platforms where the data of users is pooled, analyzed, shared and compared (Lupton 2016: 22-23).

I focus specifically on commercial self-tracking technologies that generate health and fitness data. These are highly popular with users and attract the attention of employers, insurance companies and public health

officials. At the same time, health data is generally considered private and highly sensitive.

The use of self-tracking devices and apps is proliferating and the market is growing.²⁹ The popularity and evolution of self-tracking devices has enabled the rise of the Quantified Self Movement (QSM), an expansive self-tracking community founded in 2007 by Kevin Kelly and Gary Wolf.³⁰ The QSM is heterogeneous in its membership (Fotopoulou 2014). Tracking is within the reach of more people, now that the supporting devices have become less expensive and easier to use (Lupton 2013: 29). Devices have become less obtrusive, wearable and subsequently secured a positive consumer image as ‘cool tech toys’ (Hill 2011: 100-101).

Self-tracking devices come in all shapes and sizes. In addition to the smartphone or tablet on which you can download self-tracking apps, such as birth control app Natural Cycles or productivity app RescueTime, there are many wearables and ‘smart’ objects that enable self-tracking (QS). There are clip-on cameras (Autographer, SenseCam, Narrative), wristbands (FitBit, Strava) and headbands (Muse) with embedded sensors that automatically record the user’s movements (and geo-location) and biometrics such as brain activity, blood pressure, heart rate and temperature. Medical apps meant for diagnosing symptoms (23andMe) and apps that track specific medical data, such as glucose levels by diabetics (MySugr), are becoming common (Van Dijck & Poell 2016: 2).

Apart from automated tracking, many self-tracking apps require the manual insertion of quantitative, numerical data such as calorie-intake and body weight; descriptive behavioural data, such as the books one has read (Bookly) or the wines one has tasted (Plonk); visual data, such as photos and videos; or ‘qualitative data’ such as mood descriptions, performance ratings (that are then quantified and analysed).

²⁹ Research and Markets, Dublin, 2014

³⁰ It is important to stress that there are many individual self-trackers who track a particular aspect of their life but who do not identify with the community of the QSM. See Neff & Nafus 2016.

Many self-tracking devices appear to be ordinary objects or accessories such as watches that track your health and fitness data (AppleWatch, TomTom Runner, Garmin ForeRunner), baby socks that measure a baby's temperature (Owlet), rings that track one's sleep (Oura), glasses that film (GoogleGlass) or menstrual cups that track one's period (LoonCup). Some devices have multiple parts: a FitBit-bracelet is wirelessly connected to a scale that correlates one's fitness data with one's weight. The collected data is used to track and analyse everything from fitness, sleeping patterns and chronic illnesses such as diabetes to periods, productivity and stress.

As I explained in the Introduction of this dissertation, there are also self-tracking devices that monitor and quantify one's relationships, also known as 'Quantified Relationships Technologies' (QRTs). QRTs include self-tracking technologies that consist of three interrelated phenomena: intimate tracking (i.e. the number of sexual or romantic encounters), intimate gamification (one can win badges and awards for romantic gestures) and intimate surveillance (Danaher, Nyholm & Earp: 2018). QRTs include sex tracking apps and wearables that track your sexual activities (Lovely, SexKeeper), romantic behaviour tracking apps that track (and rank) communications and romantic gestures (Kouply) and surveillance apps that track your partner's location and their communications (FlexiSpy). As discussed in the Introduction, I follow Deborah Lupton by investigating SNS as self-tracking technologies because of the increasing interconnectedness between different personal devices, applications and social media. For instance, Strava is a self-tracking technology but also a social network for athletes at the same time. Moreover, social apps, that aim to manage one's social relationships, such as Tinder and Instagram, embed self-tracking elements, surveillance, quantification and behavioral change into their designs.³¹

³¹ In this first chapter I mainly discuss the technologies that aim to manage oneself by collecting 'objective' data rather than QRT apps that involve the uploading of subjective data.

Not surprisingly, the QSM employs the slogan ‘self-knowledge through numbers’. ‘Numbers’ refers to daily activities, bodily functions and social interaction translated into raw data. New possibilities for tracking, collecting and analysing data facilitate new perspectives on the Self:

“Now much of the data-gathering can be automated, and the record-keeping and analysis can be delegated to a host of simple Web apps. This makes it possible to know oneself in a new way.” (Wolf 2014)

This quote implies an underlying idea about QS that is barely contested among self-trackers: collecting more data from your activities will make you and your relationships more transparent to yourself. Meticulous self-surveillance will provide a new (complementary) ‘narrative’ about the self. This creates more accurate self-knowledge, -awareness and -understanding.³² QS-enthusiasts tend to think of self-tracking devices as an extended memory:

“The tools are an extension (...) the data serves as an extended memory. It is all about the learning experience, ‘learn by doing’. And this ambition to gain (self) knowledge hasn’t harmed anyone yet.”³³

Contrary to the mere biological memory, a digital memory is trustworthy because it relies on large, objective datasets that are automatically generated by a neutral device, presenting the activity or memory in all its numerical objectivity. ‘Total Recall will enable an era of increased reflection’ by offering a clear presentation of who we ‘really’ (e.g. factually) are (Bell and Gemmell 2009: 62, 83, 135).

Nevertheless, the goal of self-tracking is not merely to collect vast amounts of personal data. Its primary promise ‘is less to enlighten users with information than to prod them to change’, controlling, changing and improving users’ behaviour based on the insights derived from the data (Singer 2015). For example, many apps have clear ‘self-improvement’ goals

³² See Nafus & Sherman 2014, Lupton 2014, Barta & Neff 2016 and Sharon & Zandbergen 2017 for extensive (ethnographic) research on the practices, values and motives of the QSM.

³³ De Groot, M. 2014, at: <http://qsinstitute.com/qs-community-keeps-inspiring-one-another/>

that involve behaviour change such as: DrinkLess (reduce your alcohol intake), SleepCycle (improve your sleeping patterns) and Lose it (aimed at weight loss).

Transparency through data will offer the user the tools to change, improve and control the self:

“. . . there will be a certain segment of the population that will be into the self-improvement side of things, using analytics to learn about ourselves. [W]e may have a vague sense about something, but when the pattern is explicit, we can decide, “Do we like that behaviour, do we not?” (Regalado 2013)

The promise that technologies can extend our will is also gaining traction in the philosophical domain (Frischmann & Selinger 2018; Susskind 2018). Hall et al. see ‘undeniable power for self-discovery in the external tools that enable the systematic gathering and processing of the data’ (Hall et al. 2013: 495). Personal data mining could empower humans. Under the computerized auspices of an external ‘third eye’, we could greatly influence our level of self-control.

Although concrete empirical evidence regarding the effectiveness of self-tracking is presently lacking, some studies show that accurate monitoring of behaviour can reduce failures of self-control (Fogg 2003). Moreover, being aware of the fact that others monitor one’s behaviour adds another layer of externalized control and disciplining power.

One could easily imagine that this would give us an epistemic advantage. Self-tracking could reduce confabulation, biases, illusions and ignorance. Like a diary, self-tracking could be an illuminating self-help tool in gaining accurate information about our selves and aid reflection. Additionally, self-tracking might improve efficient decision-making. These devices may encourage and enforce desired behaviours in line with users’ life choices. In the next section I argue why we should not conceptualize self-tracking technologies as digital diaries. New mediums afford changed practices.

2. A New Medium, a Changed Practice

Self-tracking devices are often perceived as self-help tools, conceptualized as digital diaries or journals. Moreover, they are understood in a traditional medical context. In this section, I will ask whether they should be conceived in such a way.

Motivational efficacy, self-control and access to (minimally) accurate information are all important dimensions of autonomy (Christman 2004: 333). We use certain strategies to obtain access to accurate information about ourselves in order to increase self-control and become more effective in carrying out our plans every day (Heath and Anderson 2009). One of these strategies is keeping a diary.

Medical professionals often ask their patients to keep a diary recording their eating habits, moods, physical exercises, absence or presence of pain. Scrupulous self-monitoring can prove incredibly valuable for self-help and empowerment. At a QS conference, one participant shared a successful experience in which she felt more empowered. As a Parkinson's patient, she had been in and out of hospitals for a great part of her life. Through self-tracking, she was able to contribute data about her body to the meetings with her neurologist and physician. Based on the insights drawn from the data, she was able to increase her autonomy in deciding the doses of her medication.³⁴

Self-trackers often refer to self-tracking as the digital equivalent or the evolved practice of keeping a diary or journal (Lupton 2014: 3). Typically, a diary is characterized as an individual project meant to privately record one's intimate reflections, feelings, experiences and logging of daily (personal) facts - hence the symbolic lock that often adorns the artifact. Since self-tracking enables disclosure of one's personal information, it would be counterintuitive to parallel the practices. Yet, historically, there exist many different forms of the ego-document including diaries as communal means of expression and therefore not at all 'private' or 'intimate' in the sense of being

³⁴ QS Europe conference, Amsterdam September 18th, 2015. Break-out session 'Talking Data With Your Doctor'.

strictly accessible to the author. In fact, ‘an essential feature of all diaries is their addressee’ (Dijck, van 2004: 2). This would be an argument supporting the claim that self-tracking devices are similar to diaries.

Nevertheless, conceptualizing self-tracking as a digital way to keep a diary is misleading:

“Cultural practices or forms never simply adapt to new technological conditions, but always inherently change along with the technologies and the potentialities of their use.” (Dijck, van 2004: 1)

As I will argue, the potentialities of self-tracking technologies facilitate, enable and encourage informational disclosures to an unspecified audience rather than to particular addressees. Contrary to a written diary, the terms and measures we employ to self-monitor are not selected by the user, but part of the design of the device. A self-tracker cannot control or be sure that third parties will not access her data. Ignoring the change in cultural practices around the new technological potentialities of self-tracking contributes to misconceptions about the way information is collected, shared and stored. Let us keep this in mind and now explore the particular domain of health and lifestyle where self-tracking devices are increasingly used.

Previously, intimate informational disclosures concerning our behaviour and bodies were confined to the confidential, legally protected medical setting where one interacts with one’s doctor. Within this context, a person can reasonably expect that her well-being is the number one priority and that any information shared within this sphere will not be shared in different contexts without her knowledge and without her consent. In their working role, physicians are subjected to social norms for the medical setting and legally bound to keep their patient’s information confidential (Solove 2006). A breach of patient confidentiality is experienced as a violation of a special social relationship and the trust that accompanies it. It is the transgression of a social norm, in fact, of an informational privacy norm: a common, contextual understanding about what to disclose to whom and to what extent.

New self-tracking technologies for health and fitness can create confusion because they change social practices within a particular social context. These new technologies enable the disclosure of information not directed at specific audiences. It might be unclear who will have (future) access to the generated information and what their interests may be. Before, a patient could rely on legal protection, informed consent, codes of conduct, social norms, even the physical boundaries such as the structure of the physician's office as a closed-off space. Now, these boundaries are difficult to enforce because they are completely lacking or not yet adapted to the new technological possibilities of self-tracking (Patterson 2013).

Common informational privacy norms regarding data use or distribution do not necessarily apply in the 'cloud'. Nevertheless, users of self-tracking devices do uphold contextual (and conventional) expectations regarding how their health data is used and shared, often based on their experiences with the social conventions of the physician's office. This, along with the failure to re-interpret the practice of self-tracking as a new cultural form, may explain why users are prone to many misconceptions with regard to the ubiquity, granularity, frequency and comprehensiveness of health data collection (Patterson 2013: 37). And yet, as I will argue in the next section, the culture of self-tracking actively stimulates disclosure and discourages regulated disclosure.

3. Techno-Norms of Disclosure

The culture of self-tracking stimulates informational disclosure.³⁵ I argue that the design of self-tracking technologies plays a significant role in enabling,

³⁵ (Informational) disclosure is the revealing of information. It may imply information-sharing, like when a technology automatically uploads the 'uncovered' or collected information or when the user decides to share her (personal) information with others. I view norms of informational disclosure as 'norms of privacy' or 'privacy boundaries' since privacy norms are dynamic social norms that govern information-flows (what to disclose, to what extent and to whom) within, and therefore play an important role in mediating, different social relationships and contexts. I will speak of norms of disclosure and privacy norms interchangeably.

encouraging and implementing new norms of handling information flows. I address three different strategies that aim to support one's autonomy but all imply or encourage sharing information. Furthermore, I argue that the community of self-trackers and the enterprises producing self-tracking technologies are equally influential in co-creating, embedding and shaping new techno-norms of disclosure. I will begin this section by first describing the self-tracking community.

The values of self-tracking are rooted in Web 2.0, which originated at the beginning of the millennium as an egalitarian ideal of the Internet as a participatory, interactional space in which users are both consumers and contributors that create content such as blog posts, forum discussions and websites (Dijck, van 2013: 10). Self-trackers are, as such, 'prosumers': they produce data and mutually consume each other's data. Through aggregation of individual data collections, broader conclusions are produced that are useful for all self-trackers. Self-experimentation, learning by doing, sharing one's (self-) knowledge gleaned from self-tracking, exchanging ideas about how users can make their data more meaningful and sharing self-tracking methods in order to gain self-control are topics that can be found across the QS website, blogs, regular meetings and annual conferences in the US and Europe (Fotopoulou 2014). The idea that self-disclosure is linked to empowerment is pervasive within the community:

“At the conference, I not only saw a community 'in love' with numbers, but also people engaging in radical acts of self-disclosure. Standing on stage they talked about painful episodes in their lives (depression, anxiety); they showed their bodies virtually (in every sense of the word) naked; they showed their dreams, their diary entries and their meditation practices, and they talked about their physical diseases and their struggles against overweight.” (Zandbergen 2013)

Of course, many individual self-trackers do not share their data. However, merely consuming and not producing is not encouraged within the culture of self-tracking. In her 2004 analysis of lifelogging, van Dijck remarked that ‘although reciprocation is certainly not a condition for participating in the blogosphere, connecting and sharing is definitely written into the

technological condition' (Dijck, van 2004: 11). This can easily be applied to the culture of self-tracking anno 2015.

Consider now two self-tracking technologies, namely the immensely popular fitness-bracelets FitBit and Strava. First of all, self-tracking devices can be defined as scaffolding technologies, technologies that use environmental, psychological or social strategies in order to overcome deficiencies of the user's willpower. Self-tracking relies on the assumption that willpower is distributed and that self-control can be found in more than one place, even outside the individual's mental realm (Heath and Anderson 2009: 9). I will now present three examples of scaffolding strategies, as features of FitBit and Strava that imply and encourage informational disclosure.

Firstly, FitBit and Strava are designed as environmental strategies. They are artifacts that structure the user's environment. Their design, such as being waterproof, inconspicuous and wearable (day and night), enables and stimulates continuous use. It makes the device part of one's daily routine. Users experience a certain loss when they take off their devices, because their data might become incomplete (Foss 2014). Users grow attached to the device, regarding it as belonging to their bodies. Through this attitude they become vulnerable to constant monitoring (Patterson 2013: 25).

Secondly, FitBit and Strava incorporate psychological strategies such as reward and warning systems, combining pleasant and unpleasant tasks and visualizing realistic targets. For instance, Strava motivates its users by turning a solitary exercise into an exciting game with both known (peers) and unknown (e.g. based on age, location, sex) competitors (Lupton 2013: 28). This is also referred to as 'gamification'. Through features of scoring (leaderboards) and reward (awards, badges), Strava motivates users to improve their performances and to log their performances (Hill 2011: 101). The game elements motivate users to share more data with Strava and other Strava-users: users are constantly stimulated to compete with others and themselves, thus generating more data. Interestingly, within Quantified

Relationship Technologies, gamification also plays an important role. For instance, romantic partners can earn badges for certain ‘romantic’ gestures.

Finally, Fitbit and Strava employ social strategies. Through these strategies the user authorizes someone else to exercise control over her (Heath and Anderson 2009: 15). Examples of social strategies are deadlines, teamwork and seeking out the ‘right’ company to support the desired behaviour. Fitbit and Strava offer social media options, forums and groups where users can share information with anyone ranging from ‘friends’ to virtual strangers. Hence users can check on and encourage each other.³⁶ Self-trackers can also connect their wearables with ‘known’ others such as friends and ‘access each other’s data and evaluate one another’s performances: sleeping habits, calories burnt, steps taken, etc. Just like SNS, this connection with others makes possible instant live connectivity and instant feedback and judgment’ (Gabriels & Coeckelbergh, forthcoming).

Many self-trackers proudly share their personal information. Yet, many of them are concerned about privacy. It is important to realize that the design of these self-tracking technologies, that promotes the disclosure of data, is rooted in a commercial interest. Producers of self-tracking technologies have an interest in encouraging disclosures of personal information; selling aggregated personal health data is a lucrative business. Currently, the Big Five, the major tech companies Amazon, Facebook, Google, Apple and Microsoft, are all investing in health technologies and health data. Apple has been investing in health apps and wearables since 2014. In 2019, Facebook has launched their Preventive Health tool, which will offer personalized reminders about health care tests and vaccines.³⁷ Amazon has invested in online pharmacies and electronic health records and is currently working on wireless earbuds with health and fitness tracking

³⁶ For the idea that monitoring or peer pressure has a disciplining effect see Foucault 1977. Foucault discusses a type of *surveillance* that becomes internalized and thus disciplines the subject. Self-tracking is a form of *self-surveillance* (watching oneself from a third person perspective) and (*social*) surveillance at the same time.

³⁷ <https://www.theverge.com/2019/10/28/20936541/facebook-preventative-health-cancer-heart-disease-flu-tool>

features for its employees.³⁸ Alphabet, the company that owns Google, has bought wearable technology maker FitBit Inc for 2.1 billion dollars.³⁹ Cooperations with (medical) insurance agencies, research-institutions, employers and governmental institutions are growing in number (Lupton 2014: 7). FitBit cooperates with insurance companies Aetna and Vitality (Boyd 2017). Apple and Vitality, Alphabet's life science research organization, cooperate with various health institutions and universities on different health projects, offering their (wearable) technologies to researchers.⁴⁰

'Pushed self-tracking' is an increasingly common type of self-tracking in which 'self-monitoring might be taken up voluntarily, but in response to external encouragement or advocating rather than as a wholly self-generated and private initiative' (Lupton 2014: 7). Examples of pushed self-tracking are health insurance agencies such as Vitality or Aetna, that adjust health premiums in return for using a self-tracking technology and achieving certain health goals, but also employers, such as Amazon or video game company Activision Blizzard, who push their employees to use self-tracking technologies to increase productivity (Boyd 2017; Dato 2014; Yeginsu 2018) Activision Blizzard pays its employees one dollar per day to use an app called Ovia Health, which tracks pregnancy (Mahdawi 2019).

Companies such as FitBit and AppleHealth facilitate 'pushed self-tracking' and encourage users to share and connect their data. Apple's HealthKit allows developers of self-tracking apps and devices and/or doctors to access users' health information automatically. It also allows users to connect and exchange the data of different self-tracking devices:

³⁸ <https://www.cnn.com/2019/09/24/amazon-launches-employee-health-clinic-amazon-care.html>

³⁹ [https://blog.google/products/hardware/agreement-with-fitbit?_ga=2.109995341.918473813.1572613323-1996097189.1566566630;](https://blog.google/products/hardware/agreement-with-fitbit?_ga=2.109995341.918473813.1572613323-1996097189.1566566630)
https://www.theverge.com/2019/11/1/20943318/google-fitbit-acquisition-fitness-tracker-announcementhealth_tech_COPY_01&utm_medium=email&utm_term=0_8cab1d7961-2d93eccc66-151754405

⁴⁰ [https://www.projectbaseline.com/;](https://www.projectbaseline.com/) <https://www.apple.com/newsroom/2019/09/apple-announces-three-groundbreaking-health-studies/>

“With HealthKit, developers can make their apps even more useful by allowing them to access your health data, too. . . . you choose what you want shared. For example, you can allow the data from your blood pressure app to be automatically shared with your doctor. (...) When your health and fitness apps work together, they become more powerful. And you might, too.”⁴¹

This quote suggests that by sharing data, apps and devices become more powerful when they know more about the user. They then empower the user with personalized advice. However, it is important to realize that companies can share user information at whim:

“Self-tracking companies can share user information with business associates, data brokers, marketers, insurance plans, employers, or even law enforcement, subject only to self-directed, self-imposed restrictions on the information flow practices decided internally and spelled out to users, often opaquely, in privacy policies. [O]nce information has reached second and third parties, there is very often no way to predict where it will land.” (Patterson 2013: 10)

In addition, as becomes clear from Google’s recent purchase of FitBit, companies can also change hands, meaning that data can change hands and can become subjected to different policies that consumers initially did not consent to. Consumers will have to rely on the promises of the new owner with regard to data-management, like Google’s recent statement that they will not use the data of FitBit users for Google Ads.⁴²

Self-disclosure is part and parcel of the culture of self-tracking. While self-disclosure is not problematic per se, self-tracking pushes users to disclose personal information outside its usual context motivated by commercial interests. Self-tracking fosters decontextualization: a blurring of common privacy boundaries - consisting of particular informational privacy norms -

⁴¹ <http://www.apple.com/ios/whats-new/health/>

⁴² https://blog.google/products/hardware/agreement-with-fitbit?_ga=2.109995341.918473813.1572613323-1996097189.1566566630;
https://www.theverge.com/2019/11/1/20943318/google-fitbit-acquisition-fitness-tracker-announcementhealth_tech_COPY_01&utm_medium=email&utm_term=0_8cab1d7961-2d93eccc66-151754405

by collapsing social contexts. This causes information that was formerly confined to and aimed at a particular social context or relationship to transgress its usual borders (Nissenbaum 2009; Patterson 2013). In the next section I will explain why decontextualization is problematic for autonomous self-presentation. I explain that privacy enables users to present themselves autonomously in different social contexts, thus enabling users to develop different types of social relationships. Decontextualization undermines this ability.

4. Privacy: Controlling One's Self-Presentation

In Chapter One, I explained that informational privacy is predominantly conceptualized as the control individuals, groups and institutions have over determining how, when and to what extent information is distributed to and, ultimately accessed by, others (Westin 1967). When one's privacy is violated, for instance when information is shared with the state, commercial companies, an employer, classmates or unknown third parties without someone's consent, this results in a violation of the very conditions required for autonomy (Roessler 2005: 112).

I also presented the view that informational privacy, or controlled disclosures, enables one to mediate different social relationships (Fried 1984; Rachels 1975). Information shared with (say) a physician should not be passed on to someone's employer. It would be a gross violation of privacy and a violation of the patient-doctor relationship if the physician would communicate this knowledge to the patient's employer. Informational privacy norms demarcating the context of the physician's office define the relationship. When such informational privacy norms are transgressed, one loses the ability to form reasonable expectations and assessments of who has access to one's information. Different social contexts require different behaviour and different expectations from us. We rely on these all the time. A violation of these expectations is a violation of contextual integrity (Nissenbaum 2009). To foster and maintain different meaningful social relationships within distinct social contexts, one must be able to mediate

different levels of disclosure (Altman 1975; Greene et al 2006; Goffman 1959). Privacy norms embody dynamic social interactions of access and withdrawal (Steeves 2009).

Self-disclosure may involve alienation from oneself when disclosures that formerly took place within a certain context are disseminated across other contexts, which is the concern with decontextualization fostered by self-tracking technologies. For example, when a teenager's diary is secretly read by her best friend who then tells her classmates about certain passages behind her back, various relationships become distorted due to the loss of control over this information. Beate Roessler argues that without informational privacy and controlled self-disclosure, authentic behaviour and identification with a certain conception of the good life become problematic:

“ (...) self-chosen diversity in one's relations would not be possible. Nor, therefore, would self-determined, context-dependent, authentic behaviour towards others, or the variety of self-chosen forms of interaction with others, or communication and reflection on self-chosen problems and issues, graded, as it were, according to the relation in question. Nor would it be possible to find an answer authentically, to the question of how one wants to live.” (Roessler 2004: 116)

When self-disclosures are made to an unspecified and even 'unknown' audience, as in the case of the classmates that secretly have access to information not intended for them, it becomes difficult for the discloser to behave in an authentic way. She loses her ability to form adequate expectations about who has access to her information and to what extent. According to Roessler, when someone cannot control who has access to her personal information, this reduces her freedom in determining her own behaviour and self-presentation in different contexts, which results in inauthentic interaction (Roessler 2004: 115). Roessler states that a person can only be fully autonomous when she is able to present herself in a self-chosen way in a self-chosen context, performing self-determined actions fitting with her expectations about the context in question. Now let us apply this further to self-tracking technologies.

Here is a fictitious, but realistic case that most would categorize as a clear violation of privacy.⁴³ First, consider the case of covert observation. Imagine that William has logged all of his activities and biometrics onto his self-tracking device. William received this wearable from his employer as a playful encouragement to improve his lifestyle in exchange for free health insurance. William expects his medical information to remain private or be shared with his personal physician. Unbeknownst to William, his employer keeps track of his data and discovers that William is in fact a diabetic. Perceiving this as a ‘risk’ and fearing high medical costs, the employer decides to fire William.

This can be perceived as deliberate deception. Facts that could have led William to choose a different course of action were kept from him. He engaged in self-tracking based on prevalent assumptions and expectations about informational flows in the social context of the workplace. Though he was under the impression that he had control over the knowledge others had of him, he did not (Roessler 2004: 116).

“Covert observation – spying - is objectionable because it deliberately deceives a person about this world, thwarting, for reasons that cannot be his reasons, his attempts to make a rational choice.” (Benn 1971: 230)

This quote from Stanley Benn clearly states that to respect William as a person, one should perceive him as an actual or potential chooser, an agent: a person trying to plan his own life, adjusting his behaviour as his perception of the world changes. To interfere with his autonomous choices is to violate his privacy. Authentic behaviour is problematized: the deceived, spied-upon person acts on reasons that ‘cannot be his reasons’, because they are the deceiver’s. Without privacy, a person can never fully and confidently claim that she has acted on reasons she has selected herself and fully identifies with.

⁴³ It is not my intention to resolve or address the concrete harms of this particular case by proposing alterations of design, policy or law, but rather to use this example to point out the very insidious, subtle and more abstract trend of decontextualization that is often not recognized as such because it does not directly cause demonstrable harm.

Let me now present the case from a different angle. If William discovers that his employer is monitoring his data, he has three options. First, he can stop his self-tracking activities as a response. Second, he can continue tracking, but adjust his privacy settings or limit the activities and biometrics he is tracking, taking the potential ‘audience’ into account. Thirdly, he can mess up the data he is collecting by cheating, for instance, by letting other people wear the device. In all three cases, William is forced to see himself, his activities, thoughts and feelings through the eyes of another and to adjust his activities according to this audience. William sees himself as the object of constant examination, which changes his perception of himself and the nature of his activity (Benn 1971: 230).

Whether the monitoring is covert or not, William’s autonomy is compromised because his employer controls the technological means and the information that it generates. William is subjected to the control of others and, as a consequence, his self-perception may change. Even if the employer does not actually access and disclose the information, the power imbalance is such that she could easily do so whenever she wishes to. As a result, it becomes extremely difficult for William to autonomously control his self-presentation within this context.

5. Authorship: Total Recall versus Autobiography

While we have discussed the ‘surveillance’ aspects of self-tracking in relation to autonomous self-presentation, I would like to add a critical reflection on the enormous (personal) record self-trackers are creating in the process for the sake of ‘total recall’. One’s memory is an important element for one’s self-understanding and one’s agency (Bratman 2007; Schechtman 2011).⁴⁴

⁴⁴ Philosophically, the role of memory for autonomous living, agency and identity has been widely researched (Bratman 2007; Conway 2000, 2005; Schacter 1996; Schechtman 2011). The historical narrative of a person’s life is important for understanding exactly those choices that she makes. It makes sense then to not only focus on the current beliefs and desires a person holds (Christman 2004: 86). As I stated in the Introduction, selves are social-historical. Memory is important for or one’s agency, since we can only access our historical narrative, our storylines, through memory. This idea relies on a particular

Yet, philosophers, starting with Anita Allen, criticize self-tracking by pointing out the ethical, legal and psychological concerns with regard to surveillance, an everlasting, objective memory and the effect of the continuous possibility of ‘dredging up the past’.

Allen argues that a ‘perfect memory’ is a freezer rather than a dustbin (Allen 2008: 57). A perfect memory can become tyrannical (Allen 2008: 64). Jacqueline Burkell argues it compromises a dynamic, developing self that is allowed to make mistakes, learn from them and change. Digital systems that remember everything threaten our personal, narrative identity (Burkell 2016: 18).

First, a diachronic, account of self entails that a person understands herself as someone who has a past and a future, as someone who exists over time. Secondly, whether an action, personality trait, characteristic, belief, desire or choice can be attributed to a certain person, so that she can call this particular action ‘hers’, depends on whether it fits coherently within her personal storyline, her narrative (Schechtman 2011; DeGrazia 2005). Agents actively braid their memories into a coherent, personal narrative of which one recognizes oneself as the author. This means that one reflects on past actions and choices, interprets and contextualizes these memories and makes them understandable to oneself as part of one’s life story. Understanding oneself is rather an (inter)subjective process resembling being the author of an autobiography than being the subject of a documentary.

Moreover, ‘total recall’ might become tyrannical when persons are constantly, or potentially, confronted with their past, current or possibly future actions and choices.⁴⁵ As we discuss in Chapter Three and Five, data collected through self-tracking technologies may also be used to construct profiles that may be used for purposes that one cannot foresee now. Users may become ‘represented’ by static categories based on their ‘extended

account of identity as narrative identity and on a diachronic account of selfhood (Christman 2009; Schechtman 2014).

⁴⁵ While people who suffer from Alzheimer’s might arguably lack the memory for understanding ‘who they are’, people who suffer from hyperthymesia, a superior autobiographical memory, know all too well ‘who they are’. In the latter case, ‘living’ one’s life freely is incredibly difficult because every choice and action is remembered.

memories'. Furthermore, based on one's 'objective data', predictions may be made about one's future self. Also, 'total recall' does not only affect how we relate to ourselves. Total recall implies that one also collects data on others and impacts therefore how we relate to others. In the episode *The Entire History of You* from the science fiction television series *Black Mirror* this becomes painfully clear.⁴⁶ We see how a digitally enabled, perfect memory may also affect or distort one's social relationships. Out of jealousy, the lead character dredges up audio-visual material in which his wife tells him about her previous romantic relationships to prove she had never been honest with him about her past. All of a sudden, a past event becomes meaningful for their relationship, years later. While this is a science fiction case, the fear of logging or posting information about oneself that may affect one's ability to present oneself autonomously in the future, in a different social role, is very real. In Chapter Four, I address this in the context of teenage girls.

Promoting self-tracking through the discourse of 'total recall', a quantified, extended memory, contributes to a static rather than a social-historical, dynamic, developing understanding of selves. Burkell suggests, together with Martin Dodge and Robert Kitchin (2007) and Viktor Mayer-Schonberger (2009) that forgetting is a psychological, and ethical, necessity. While I agree that 'forgetting' is important, I do not agree that we need a separate ethics of forgetting, but rather re-emphasize the importance of autonomous self-presentation for social-historical selves.

6. Running our Lives for Ourselves

Many privacy scholars have located the value of privacy in autonomy, arguing that it is necessary for freely fostering close relationships, individual choice, creativity and other aspects of an autonomous life (Benn 1971; Fried 1984; Inness 1992; Rachels 1975; Roessler 2005). Autonomous agents are able to shape their lives according to those desires, beliefs and values in order to judge reasons for action. They should be able to identify with their actions

⁴⁶ *The Entire History of You*, *Black Mirror*, S1. Ep.3

and decisions. As Roger Crisp states: ‘part of what makes life worth living is running one’s own life for oneself’ (Crisp 1997: 61).

As the practice of self-tracking becomes increasingly institutionalized, users will increasingly be able to “outsource” their self-government, as Michael Valdmann puts it, to devices and those who control and access them by making visible what was not visible before (Valdmann 2010). My thesis is that extended transparency conflicts with the informational privacy norms necessary for living an autonomous life. Success stories about empowerment, self-control and self-improvement camouflage the reality of decontextualization, fuelled by commercial or efficiency interests, where we expose too much to an undefined (future) audience, which limits our capacity to run our lives for ourselves.

Self-tracking technologies could be valuable tools for strengthening one’s self-control. For instance, a user may gain more control over her body weight by tracking and sharing her calorie intake and athletic performances. Yet, the way many of these self-tracking devices and apps are currently designed and used, combining self-surveillance, co-veillance and surveillance, cancels out these promising results. Beyond her control, the information collected through self-tracking exposes someone’s geo-location, her consumer and exercising behaviour, the time she spends in and outside of her office or home and many more variables to an unidentified audience. One can deduce many insights about a user’s personal life from the data gathered. Altogether, this constitutes a violation of her privacy that can undermine her autonomy on a more fundamental level.

How, then, should we deal with this in practice? The broader privacy problem of decontextualization deserves further normative scrutiny, yet, we must also think about how to practically negotiate the tension between transparency and limits on disclosure. Users should be educated about digitalization of cultural practices, information flows of emerging self-tracking technologies, potential purposes of one’s information and potential audiences. Furthermore, we should critically evaluate the design features of self-tracking technologies and offer alternatives, beyond the mere option for ‘consent’, whereby users have granular control over the flow of their

information and the potential audiences able to access their data. Users should also be able to anonymize or delete their data. It is particularly important to reconsider the institutionalization of commercial self-tracking devices within the health care sector.

I have argued that informational privacy is an important condition for leading an autonomous life. Users should be supported in their capacity to negotiate and control informational disclosures if these technologies want to present a normatively significant contribution to autonomy. In the next chapter I take a different perspective. I take a closer look at the main promise of self-tracking: self-improvement and behaviour change by offering personalized feedback. My hypothesis is that we should not merely focus on surveillance and informational privacy. A lack of informational privacy makes users vulnerable to unwanted interference, for instance by the commercial parties that produce and profit from self-tracking technologies. I rehabilitate and propose ‘decisional privacy’ as a complementary conceptual lens.

3

Strongly Recommended

Revisiting Decisional Privacy to Judge Hypernudging
in Self-Tracking Technologies*

“What if your Fitbit knew exactly what to say on a particular day to motivate you to get off the couch and run a 5K?”

Persado, Schwab 2017

Introduction

In his book *In Persuasion Nation*, George Saunders tells the story of a grandfather who takes his grandson to a show in a future New York (*Robust Economy, Super Moral Climate!*) where everybody is forced to wear trackers and is constantly targeted with personalized advertisements based on their data and preferences, persuading them in a powerful way to buy products:

“And then, best of all, in the doorway of PLC Electronics (a fictitious electronics store, red.), a life-size Gene Kelly hologram suddenly appeared, tap-dancing, saying, “Leonard, my data indicates you’re a bit of an old-timer like myself! Gosh, in our day, life was simpler, wasn’t it, Leonard? Why not come in and let Frankie Z. explain the latest gizmos!” And he looked so real I called out to Teddy, “Teddy, look there, Gene Kelly, do you remember I mentioned him to you as one of the all-time greats?” But Teddy of course did not see Gene Kelly, Gene Kelly not being one of his Preferences, but instead saw his hero Babar, swinging a small monkey on his trunk while saying that his data indicated that Teddy did not yet own a Nintendo.”⁴⁷

We are increasingly living in a (subtler) version of *In Persuasion Nation*. New technologies that use our data in order to steer our behaviour are often

* This chapter is based on: Lanzing, M. 2018. Strongly Recommended: Revisiting Decisional Privacy to Judge Hypernudging in Self-Tracking Technologies. *Philosophy & Technology* (32:3), pp. 549–568.

⁴⁷ George Saunders, *In Persuasion Nation*, 2006, Riverhead Books: New York.

accompanied by worries about (mass)-manipulation. Uber's (offline) collection of real-time data in order to predict your next ride and tailor on-the-go recommendations (sushi or noodles?) based on one's location and past choices makes us uneasy (Schlosser 2016). The Facebook experiment, in which tampered newsfeeds influenced the behaviour of users, sparked outrage (Rushe 2014). Also, imagining a FitBit that uses personalized nudges to coach the user into 'healthy' behaviour is met with suspicion (Schwab 2017). Furthermore, the recent 'fake news' controversy surrounding Facebook and Cambridge Analytica reignited the debate about the manipulative aspects of data driven personalized communication and behavioural targeting in the online realm (Citron & Pasquale 2014; Hildebrandt 2008; Pariser 2011; Turow 2011; Zittrain 2014; Zuiderveen Borgesius et al 2016; Zuboff 2015).

Yet, drawing in Big Data to nudge individuals with personalized feedback to change their behaviour, or 'hypernudging', is the latest feature of many new technologies. The new frontier, and the subject of this chapter, is that of self-tracking technologies (Danaher 2016: 3-4; Galic, Timan & Koops 2017: 30). Fuelled by real time data, algorithms create personalized online choice architectures that aim to nudge individual users to effectively change their behaviour. The question arises to what extent the data driven personalized recommendations of coaching technologies are in fact empowering.

In this chapter, I will criticize the (potential) use of hypernudging in the field of self-tracking. I focus on self-tracking technologies because most people wear them precisely because of the personalized feedback they offer. If my critique succeeds, it follows that information and communication technologies (ICTs) that hypernudge users without their knowledge (such as Facebook) are ethically problematic too. I will present a second perspective for criticizing self-tracking technologies in addition to informational privacy: decisional privacy. The aim is to explore and rehabilitate the importance of decisional privacy as a conceptual tool to carry out this critique and to counter the trend of focusing solely on informational privacy when

evaluating ICTs by emphasizing the relationship between surveillance and decisional interference (Roessler 2005; Koops et al 2017).

The claim of this chapter is that hypernudges compromise autonomy because they violate both informational and decisional privacy in their complementary dimensions. I will support this claim in five steps. Firstly, I will argue that the type of personalized feedback offered by self-tracking technologies should be interpreted as hypernudging. Building on Karen Yeung (2017), who coined the term, I define hypernudging to distinguish it from ‘regular’ nudging. Subsequently, I will show how its features of extensive surveillance, hiddenness and predictive capacity increase its potential for unjustified interference by going beyond the safeguards of ‘good’ nudging. Secondly, I will explore the concept of decisional privacy as a complementary dimension to informational privacy and its value as a conceptual tool for evaluating hypernudging by drawing on research by Beate Roessler (2005), Jean Cohen (2002) and Bert-Jaap Koops et al (2017). Thirdly, I will argue that in order to address our intuitions concerning the manipulation involved in hypernudging. In order to evaluate whether hypernudging compromises autonomy, we should interpret this phenomenon from both an informational and decisional privacy perspective. Informational and decisional privacy are part of a mutually reinforcing dynamic -rather than separate types. Fourthly, I will raise and counter three potential objections to my argument. Finally, I conclude that self-tracking technologies that use hypernudging compromise a user’s autonomy, because they violate both informational and decisional privacy. Interestingly, it seems that while self-tracking technologies promise to empower users, they simultaneously compromise their autonomy in another way. Moreover, I will show that there is value in decisional privacy as a conceptual tool for assessing whether hypernudging compromises or strengthens autonomy.

1.1 Self-Tracking: The New Frontier for Hypernudging

As we learned in the previous chapter, self-tracking is the practice of quantifying behavior through extensive (self-)surveillance for the purpose of self-knowledge and, increasingly, behavioral change.⁴⁸ As discussed, the main attraction and promise of self-tracking is self-improvement through personalized feedback (Danaher 2016: 17). Personalized feedback is valuable because it is an effective tool for behavioural change. Tailoring and personalization are powerful strategies of persuasion, associated with online interventions promoting healthy behaviour change, because users experience tailored feedback as more relevant to their person and situation (Fogg 2003; Krebs, Prochaska & Rossi 2010; Linn & van Weert 2015).

If tailoring is persuasive, then what about the Big Data driven personalized choice architectures? Choice architectures are designs in which options are presented to users or: consumers (Hausman & Welch 2010: 124). The design can shape the decision-making processes of users significantly by presenting options in a particular way, by offering a certain number of options or by implementing a ‘default’ option. Big Data has enabled ‘personalized’ choice architectures designed according to user data feedback. Personalized feedback in self-tracking is based on the analysis of large aggregates of (personal) information or ‘Big Data’, also referred to as personal analytics. The analysis aims to identify patterns and interesting correlations in the data. Based on the analysis, many devices and apps make suggestions to their users about how they can change or improve their behaviour, and what choices they can make. For instance, your FitBit can tell you to increase your steps based on the individual user performance it has measured and based on the performances of other users or ‘peers’ (Lupton 2016: 24-26).⁴⁹ Another example would be an energy app that

⁴⁸ The difference between fitness and medical data is vague. One can make assumptions about a user’s health based on fitness data and vice versa.

⁴⁹ Lupton (2016) lists other examples of self-tracking devices that use ‘coveillance’ and pool the data of a particular group in order to monitor behavior. Work Time allows employers and employees to track and encourage each other’s progress. Virgin Pulse tracks the

compares your personal energy data to the data of the neighborhood population and encourages the user to make ‘green’ choices.⁵⁰ Normative interventions are common in self-tracking. Most apps offer feedback on the performance of the user based on the average for his or her age and sex, personal goals or on a standard set by, for instance, the World Health Association.

Most self-tracking technologies are still at an early stage of development. Nevertheless, their potential with regard to behavioural change and directing decision making is growing, in tandem with the rapid progress that is being made in real-time data processing, predictive analytics and Big Data driven (automated or guided) decision-making processes. The potential for behavioural change through self-tracking lies in highly personalized online choice architectures enabled by smart algorithms that learn from and adapt to the behaviour of the user (Michie et al 2017). MyBehavior, a self-tracking app recently designed by Cornell, is promoted as ‘the Netflix for your health behavior’ and fine-tunes its algorithmic recommendations for personalized feedback for behaviour change that ‘sticks’ (Metz 2015; Rabbi et al 2015).⁵¹

One can imagine that this has attracted the attention of policy makers who are interested in battling national health issues like obesity, of employers who would like to keep their employees healthy and productive, and of companies that see the monetary value in aggregate collections of health data. Due to the current trend in insurance, policy and employment, in which self-tracking technologies are imposed on or donated to clients, citizens and employees, it is worth evaluating the Big Data driven, behavioural steering that self-tracking technologies may be capable of in the future. For the purpose of this chapter, I criticize self-tracking technologies that use Big Data driven decision-making processes which are hosted by corporations and governmental institutions.

fitness, diet, weight, sleep and work commitment of employees and compares the aggregated data for employers.

⁵⁰ This app is used in one of Amsterdam’s living labs:

<http://oud.amsterdamsmartcity.com/projects/detail/id/85/slug/city-zen-testliving-lab>.

⁵¹ For the project website of Rabbi et al 2015: <http://idl.cornell.edu/projects/mybehavior/>

1.2 Features of Nudging

Personalized feedback offered by self-tracking technologies could be interpreted as harmless ‘nudges’, as ways to scaffold a user’s autonomy by offering ‘a form of choice architecture that changes the behaviour of people in a predictable way without forbidding any other options or changing their economic incentives’ (Thaler & Sunstein 2008: 6). Ideally, nudges do not compromise your freedom. In fact, according to Thaler and Sunstein’s theory of libertarian paternalism you can change people’s choice in such a way that they will choose what is best for them and what they would have chosen themselves, had they not been limited by human flaws such as weakness of will. Importantly, nudges do not reduce or eliminate options, but simply order your choice architecture in a way that favours providing specific options. The main criticism of nudging is its potential for manipulation (Hausman & Welch 2010: 128; Wilkinson 2013: 347). Manipulation, as I understand it here, refers to the intentional steering of people’s choices, by promoting and shaping decision-making processes that persons usually would not use for making rational decisions (Wilkinson 2013: 347; Goodin 1980: 17). For instance, designing a choice-architecture so that a person will only perceive one option and will subsequently choose that option would be an example of manipulation.

Nudges use psychological mechanisms in order to steer decision-making. For instance, bright red arrows pointing towards a staircase will prompt people to take the stairs instead of the elevator. The critique is that ‘nudges’ are not fully in charge with respect to their behaviour. Someone else steers their decisions based on psychological mechanisms instead of rational deliberation and argumentation (Nys & Engelen 2016: 4). Moreover, because nudges are ‘physically’ unobtrusive (otherwise they would not work) and their intentions are not generally transparent, they are potentially manipulative.

Therefore, in order to ensure ‘good nudges’, Thaler developed three criteria. First, all nudging should be transparent and never misleading. Users should be able to ‘see’ the nudge and to hold the choice architects, the engineers of corporations or (governmental) institutions who structure this

environment in such a way as to encourage a certain type of action, accountable. Secondly, it should be as easy as possible to opt out of the nudge, preferably with as little as one mouse click. Thirdly, there should be good reason to believe that the encouraged behaviour will improve the welfare of the nudgee (Thaler 2015). Now, let us assume for a moment that if we would adhere to Thaler's criteria, we could tolerate nudging. What happens when nudges become powered by Big Data?

1.3 Features of 'Hypernudging'

The rise of Big Data practices continues to create more worries in the debate about nudging. Yeung recently coined and defined 'hypernudging' as the algorithmic real-time personalization and reconfiguration of choice architectures based on large aggregates of (personal) data. Yeung stresses that the hyper personalization of a user's digital choice-environment based on Big Data is incredibly potent and possibly manipulative.

“By constantly (re)-configuring and thereby personalising the user's informational choice context, typically through algorithmic analysis of data streams from multiple sources claiming to offer predictive insights concerning the habits, preferences and interests of targeted individuals, these nudges channel users choices in directions preferred by the choice architect through processes that are subtle, unobtrusive, yet extraordinarily powerful.” (Yeung 2017: 119)

Hypernudges are also known as 'Big Data driven decision-guidance processes' or 'recommender systems'. Contrary to automated decision-making processes, decision-guidance processes allow the user to make the final decision. A hypernudge 'merely' steers or optimizes someone's decision-making process via algorithms that offer a personalized selection to the 'targeted' individual based on the profile constructed from (personal) information. This is also the reason why it is referred to as a type of 'nudge'.

Hypernudges process past and real-time information from many sources within a networked environment. Hypernudging is therefore based on live data streams as well as a user's personal data history. Moreover, it is

not only the data of the individual user that provides feedback, but also all the data of other users. Recommender systems use collaborative filtering, which means that choice selections are optimized based on ‘people like you’ or people who make choices and behave like you. These profiles are then often informed by and mixed with individual informational input, in which the individual user can insert information about certain options (by liking or accepting certain options). The choice architect can then provide feedback not only based on the individual’s behaviour, but also based on and compared to an entire population.

Think about the personalized advertisements a Facebook user receives: these recommendations are constructed in real-time based on your own behaviour but also on the behaviour of people that share similar political views, lifestyles or music interests. Another well-known example is ‘GoogleMaps’ that updates and suggests one’s itinerary real-time by collecting the (GPS) information of other users and traffic information. Self-tracking technology Strava uses a similar technique by combining GPS data and comparing athletic performances among users.

In sum, hypernudges use personalized recommendation to steer behaviour. The effectiveness of their interventions is powered by surveillance. The refinement of a target’s choice environment requires continuous (corporate) large-scale data collection about people’s decisions in order to specify data profiles of targets -which is stored and can of course be used for other applications (Yeung 2017: 122).

1.4 Nudges versus Hypernudges

Hypernudges are more sophisticated, intrusive and powerful than Thaler and Sunstein’s concept of the ‘nudge’. Thaler’s criteria for ‘good nudges’ are difficult to meet because of three features that also distinguish hypernudging from regular nudging.

The first feature of hypernudging is its dynamism or the real time, personalized feedback on which it is based. This feature is enabled by the networked quality or ‘surveillance’ of hypernudging: the unobtrusive, real

time collection, combination and analysis of Big Data, drawn from multiple sources. This feature is powerful because of its one-to-many capacity and personalization. Based on real time data, it can change the choice architectures of millions of users in one mouse click. Moreover, it can offer each and every one of those users a personalized set of options. A regular nudge is aimed at a general public rather than directed at a specific, targeted individual and can only offer a 'one size fits all' option.

The second is its predictive capacity, which is constituted by smart algorithms that 'learn' from the collected data and make behavioural predictions that inform the constant reconfiguration of an individuals' choice architecture. While nudges may be adjusted, this is a time consuming enterprise. Hypernudges receive immediate feedback about the effectiveness of their interventions.

The final, overarching and most important feature of hypernudges is their hiddenness and their hidden intentions. While nudges are also often not immediately detectable, they are and should be 'visible' in the physical world (we can 'see' the red arrow pointing to the staircase). Hypernudges, however, are hidden in a more complicated and sophisticated way. Firstly, most users are not aware of hypernudges because they are unobtrusively integrated in most of our online informational environments. Furthermore, they are also not aware that the choice architects behind hypernudges are corporations with economic incentives. Google, Facebook or FitBit, may deliberately steer users in a certain direction without their knowledge of a company's underlying intentions. Of course, this is also a problem in regular nudging, if it does not apply to Thaler's criteria, but in hypernudging this hiddenness is inherent to the technology.

All three features problematize meeting Thaler's criteria for 'good nudges'. The hiddenness of hypernudges compromises both Thaler's transparency and welfare criteria. As hypernudges are unobtrusive, they can be misleading and unjustified but powerful interferences with decision-making processes. Moreover, because of the corporations behind many hypernudges (data is, after all, the currency that makes most online services and technologies commercially viable) we cannot be certain or have a way to

find out that the intentions and reasons behind hypernudging are legitimate and are guaranteed to improve the welfare of the user in the future.⁵² As I will emphasize in the third section, the pre-selection of choices offered by the algorithm to the self-tracker may be more aligned with the interest of the actor that controls the technology than with the user.

Furthermore, all three features make it difficult to meet Thaler's second criterion that it should be easy to opt out of a hypernudge. For one, the level of persuasion increases as choice-architectures become more personalized due to real-time surveillance and predictive capacities. In particular, opting out is problematized by the unobtrusiveness of these systems, and many hypernudges cannot be opted out from without quitting the service altogether. For example, not showing women the same high paid job advertisements as men entails unjustified interference with someone's choices and opportunities (Gibbs 2015). Choice architects are responsible for how people can perceive how their options are structured and whether they can opt out. If they are reckless or negligent, for instance by employing hidden hypernudges, then this could be an unjustified interference with someone's decision-making process.

The emerging picture is that self-tracking technologies that use hypernudging, interfere with users' decision-making processes by using real-time, continuous surveillance. While 'regular nudging' is often the subject of worry, the features of its Big Brother, hypernudging, make it incredibly difficult –if not impossible– to meet safeguards that should prevent nudges from becoming unjustified interferences with decision-making processes.

⁵² Often algorithms are corporate secrets, creating more barriers in understanding why one receives particular feedback. Moreover, to complicate matters further, in some cases hypernudges use inherently complex machine learning algorithms (Burrell 2016: 3-5). The inner workings of algorithms are 'black boxes' and cannot be (easily) explained (Pasquale 2015). Even expert choice-architects often do not understand or can explain how 'deep learning' algorithms work and have to rely on outsider feedback for mistakes made by faulty machine learning (Byrnes 2015; O'Neil 2016: 154). The 'right to explanation' has become an important topic in recent debates about algorithms and machine learning. The renewed European General Data Protection Regulation is claimed to protect this right, but its feasibility is contested (Wachter, Mittelstadt & Floridi 2017).

These concerns are supported by a recent Princeton research into ‘dark patterns’:

“Dark patterns are user interface design choices that benefit an online service by coercing, steering, or deceiving users into making decisions that, if fully informed and capable of selecting alternatives, they might not make. Such interface design is an increasingly common occurrence on digital platforms including social media websites, shopping websites, mobile apps, and video games. At best, dark patterns annoy and frustrate users. At worst, they can mislead and deceive users, e.g., by causing financial loss, tricking users into giving up vast amounts of personal data, or inducing compulsive and addictive behaviour in adults and children.” (Mathur et al 2019)

In the next part I will argue that these interferences can be specified as violations of both decisional and informational privacy. Moreover, because these dimensions are constitutive of our autonomy, hypernudging is worrisome from an autonomy perspective. Interestingly, while self-tracking technologies promise to scaffold one’s autonomy, they compromise one’s autonomy at the same time (Lanzing 2016).

2.1 Two Complementary Dimensions:

Informational and Decisional Privacy

Informational privacy has become the concept most widely used to evaluate how ICTs use data. Informational privacy entails the ability to control who has access to one’s personal information and to what extent (Westin 1967). Informational privacy is therefore bound up with the concept of reasonable expectations: in other words, it is reasonable to expect that the information shared with one’s physician will not be shared with a health insurance agency, for example. These expectations about sharing and withholding information are dynamic and context dependent (Nissenbaum 2010). They constitute social norms that mediate and shape our social relationships. Scholars have found informational privacy a useful tool for criticising the harmful aspects of online data collection by third parties that cannot reasonably be expected to have access to that information. For instance,

Yeung states that the right most clearly compromised by hypernudges is the right to informational privacy, given the continuous monitoring of individuals and the collection and algorithmic processing of personal digital data that it entails (Yeung 2017: 124).

Although the focus has been on informational privacy, a more general typology of privacy should include other dimensions (Koops et al 2017: 2). Scholars have identified dimensions such as privacy of the body, privacy of behaviour, privacy of thoughts, local privacy and decisional privacy. Informational privacy is usually presented as a separate type of privacy that exists alongside these other types (Roessler 2005; Allen 1988). Yet, recently it has been argued that this may be a misrepresentation. Other dimensions, like decisional privacy, are historically and conceptually related to informational privacy and should be considered as complementary concepts (DeCew 2016; Koops et al 2017).

Decisional privacy is broadly defined as the right to defend against unwanted access and interference in our decisions and actions (Allen 1988: 97; Roessler 2005: 9). Roughly, ‘being interfered with’ means that (un)known actors or entities have access to one’s behaviour and decisions, which allows them to comment upon, interpret or change one’s behaviour and steer one’s decisions, while this access does not fall under the reasonable expectations of the user or subject or was not granted in the first place.

In the literature, we find either very narrow or very broad accounts of decisional privacy. On the one hand, decisional privacy is often narrowly associated with ‘nongovernmental decision-making’, intimate choices including (same sex) marriage and childrearing and the right to reproductive liberties. This stems from the United States jurisprudence that grounded reproductive liberties in the right to decisional privacy preceded by *Roe v Wade* [1973] (Allen 1988: 97).⁵³ On the other hand, certain other descriptions are too broad; encompassing not only fundamental decisions about one’s life projects, such as religion or relationships, but also actions, modes of behaviour and ways of life or lifestyles (Roessler 2005: 14-15, 79). I

⁵³ *Roe v Wade* [410 U.S. 113 1973]

will not commit to a particular view, but I will assume, for the purpose of this chapter, the broader description.

As I argued before, privacy is a social condition for social contexts. Whereas informational privacy would regulate access between people to certain information, decisional privacy regulates the access of others in the form of interpretation, objection, commenting and other forms of intervention in the way you live your life. Of course, the more significant certain behaviour, actions and choices are, the more salient the need for calling them ‘private’ in the sense that they are (quite literally in the case of data mining) none of anyone’s business.

Decisional privacy provides the necessary breathing space to carry out one’s chosen life unhindered across different social contexts, which is important for leading an autonomous, self-determined life (Roessler 2005: 80). Our decisions (however big or small) are expressive of our autonomy. In order to run our lives for ourselves is important that we make our own decisions, motivated by our own reasons, with the people we want to be part of those decisions -even when others are better able to pick out our outfits, our diets or partners.

Decisional privacy also protects you from unwanted interference by others, in the words of Ruth Gavison, from the ‘chilling effect’: conforming your actions to perceived social norms out of fear of (social) sanctions:

“Privacy thus prevents interference, pressures to conform, ridicule, punishment, unfavourable decisions, and other forms of hostile reactions. To the extent that privacy does this, it functions to promote liberty of action, removing the unpleasant consequences of certain actions and thus increasing the liberty to perform them.” (Gavison 1980: 448)

With regard to ICTs that use hypernudging, while informational privacy can capture what is wrong about collecting information, decisional privacy can explain the distinctive type of wrong involved in using that information to subsequently interfere with a person’s (or a group’s) decision-making process. For instance, hypernudges compromise decisional privacy, because users may not know or expect their decisions will be interfered with based on their

collected information and by whom. Decisional privacy concerns should therefore not be reduced to or merely understood in terms of informational privacy concerns. Instead, decisional privacy could be a promising complementary conceptual tool for criticizing hypernudging.

2.2 Privacy and Autonomy

A right to decisional privacy aims to protect freedom from intrusions and interference of the mind, and the freedom to exercise autonomous (personal) decision-making. Although decisional privacy does not feature as a concept in the European legal tradition, article 8 of the European Convention on Human Rights does acknowledge the function of privacy as a right to personal development and autonomy as its underlying value. Therefore, the right to choosing one's own way of living, to self-determination and the right to make one's own choices about one's body are mentioned in article 8. Koops et al argue that decisional privacy is "a distinct type of privacy, which protects the autonomy of persons to make decisions about their body or other aspects of their private life" (Koops et al 2017: 40). This echoes Cohen's conceptualization of the right to privacy as protecting decisional autonomy (Cohen 2002: 44).

Decisional privacy thus resonates strongly with the liberal ideal of autonomous decision-making. Moreover, we need decisional privacy in order to ensure decisional autonomy (Cohen 2002). It protects, more or less, the freedom to select our own behaviour, actions and ways of life without interference, as long as we do not harm others; even though others may not agree with our choices because they consider them to be 'foolish, perverse, unhealthy, wrong or abnormal' (Mill 1910: 75).

Decisional privacy is rooted in and closely related to autonomy. It protects people from unwanted interference with their decisions in order to live a self-determined life. I focus on decisional privacy rather than the more general concept of autonomy because it does distinctive work in explaining the particular wrong at stake in hypernudging. As I argue below, its explanatory power lies in the fact that it focuses on the contextual

justification for interference with (and influencing of) decision making procedures. Importantly, it explains why interference with certain decisions is off-limits for particular parties. Expectations about decisional interference are context dependent. For instance, we do not reasonably expect interference with decisions about one's personal health or fitness by commercial enterprises. Decisional privacy protects these expectations. I will return to this point shortly.

All dimensions of privacy protect aspects of autonomy, for instance autonomous decision-making, self-development or self-presentation. Without privacy, these aspects of autonomy cannot be developed or exercised. Like informational privacy, decisional privacy has a functional relationship with the concept of autonomy. Privacy cannot be reduced to another value such as autonomy, yet the reason why we value privacy is rooted in autonomy (Roessler 2005: 67).

Furthermore, as previously stated, there is a difference between autonomy and decisional privacy. While the latter may be violated, this does not entail an immediate loss of autonomy. Roessler argues that decisional privacy protects autonomous authorship with regard to one's own, unique biography; a life free from interpretation and comments, from people whom one does not want to grant this kind of interpretative power (Roessler 2005: 84). Of course, this does not mean that we make our decisions as isolated individuals. 'Privacy as decisional autonomy' does not deny that we are embedded, interdependent individuals (Cohen 2002: 47). Our social relations constitute our autonomy. They influence our decision-making processes, control parts of our lives and determine or provide many of the values, beliefs and reasons we identify with.

What this means is that the level or kind of decisional interference we accept depends on the social norms in each social context. For example, it may be wrong for your boss to comment on the way you raise your children (non-essential for the relationship), but not for your partner (essential for the relationship). The kind of privacy that protects us against interference by contexts that we did not reasonably expect (or grant) to interfere with our decisions is decisional privacy. This is exactly what allows

a plurality of self-chosen ways of life, behaviours, actions and choices, while the reasons that underlie these decisions may very well be rooted in one's community values or in discussions with one's partner (Cohen 2002: 48).

To return to the point under discussion, remarks or advice on one's exercising pattern, partner of choice, friends, religious expression, eating habits or career choices and (false) inferences or interpretations about one's sexuality, music preferences or political decisions can be very serious interferences and intrusions, even when one's autonomy is not immediately lost. For instance, when an algorithm offers a user feedback on reducing her alcohol intake, including recommendations of three different kinds of self-help literature, or the suggestion to visit a choice of three nearby physicians, or several recommendations for insurance policies, users can still plan their lives as they please. However, it remains a violation of decisional privacy. The decision-procedure of the user is influenced and interfered with. This is not necessarily problematic of course. What makes this interference problematic is that this interference is done by a commercial choice-architect with economic incentives and that the object of decisional interference is 'health', which is a domain we do not reasonably expect commercially driven interferences with our decision-making process. Moreover, users are not aware of the algorithm and its underlying incentives and intentions.

To summarize, decisional privacy is a precondition for autonomy that enables a person to pursue certain lifestyles and life projects as she pleases without others interfering. Decisional privacy seems to grasp something particular about the moment that a person decides to choose or do something that he or she wants and who is reasonably expected to interfere with one's decision-making process at that moment in that particular social context. As Judith Wagner DeCew argues, many cases concerned with autonomous decision-making about one's body, intimate relationships and lifestyle are in fact privacy cases (DeCew 2016: 40).

Stanley Benn argues that in order to respect people as persons, we should regard them as agents: as persons who are capable of making autonomous choices. To interfere with their decision-making processes through surveillance is to violate both their informational and decisional

privacy. Without these types of privacy, users can no longer be certain whether they are acting based on their own reasons, reasons they selected themselves and identify with, or those of the manipulator (Benn 1971). In that vein, I want to conclude this section by stating that by approaching the problem of hypernudging from the perspective of informational and decisional privacy, reveals something specific about the distinctive wrong of decisional interference enabled by hypernudging. When hypernudges are hidden and when the intentions behind it are commercially driven, they entail a kind of decisional interference that is enabled by and powered by pervasive and pernicious surveillance. This is a violation of both our decisional and information privacy and a potential threat to our autonomy. In the next section, I will use hypernudging as a key example of how these two dimensions are intertwined and should therefore both be used as criteria for evaluating hypernudging.

3.1 Dynamic Dimensions

We have so far clarified informational and decisional privacy and have established that the two dimensions, though distinct, are related to and protective of autonomy. We can now proceed with the suggestion that these dimensions should not be treated as separate types but as part of a mutually reinforcing dynamic. Koops et al (2017) argue that informational dimension is strongly connected with other kinds of privacy such as decisional privacy and vice versa. In other words, a violation of your decisional privacy often implies a violation of your informational privacy (Koops et al 2017: 56). For example, decisional privacy is not limited to controlling and limiting interference with one's decisions, but also involves controlling and limiting information about those decisions (Koops 2017: 68). It can be said, it is not only about determining who can actually interfere with your choices (who has decisional access), but also about determining who knows (who has informational access) about these decisions –and to what extent.

Likewise, when informational privacy is violated, this may have consequences for your decisional privacy. Informational privacy is not

limited to controlling information, but also involves controlling and limiting interference with one's decisions based on that information. In other words, it does not only mean that you can determine who or what has access to your information and to what extent, but also about determining who can interfere with your decisions based on that information (who has decisional access based on information).

Similarly, DeCew argues that there are important connections between these dimensions and that they are not adequate by themselves. DeCew describes the link between surveillance and our ability to make our own decisions so clearly that I hope the reader allows me to quote in full:

“(...) because the interests that justify the screen on information include the interest in being free to decide and make choices about family, marriage and lifestyle absent the threat of the same problematic consequences that accompany an information leak. In other words, it is plausible to maintain that worries about what information others have about me are often due to worries about social control by government or others. What one can do to me, or what I can do free of the threat of scrutiny, judgment and pressure to conform, may often depend on what information (personal or not) an individual, state or others have about me. Clearly my behaviour is also affected by the extent to which I can make my own choices. Therefore, both the threat of an information leak and the threat of decreased control over decision making can have a chilling effect on my behaviour.” (DeCew 2016: 42)

The rehabilitation of decisional privacy and emphasis on the relationship between informational and decisional privacy could be helpful in clarifying some of our ethical intuitions regarding new technologies that use our data to steer our decisions. When we say that hypernudging interferes with our decision-making processes, we can specify this as a violation of decisional and informational privacy.

Hypernudges in self-tracking technologies could serve as an example to illustrate Koops' thesis that informational and decisional privacy are part of a mutually reinforcing dynamic (see Fig.1). Hypernudges can also be described as a feedback loop in which data about decisions and actions is

used to interfere with decisions. The resulting data about these decisions is then again fed into the system in order to further tailor and personalize the choice architectures, thus increasing the persuasiveness of interference.

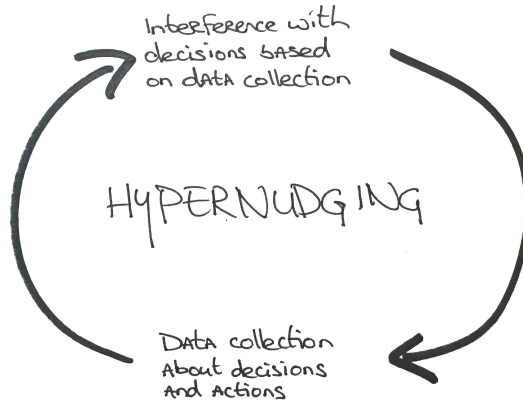


Fig. 1

If we want to explore in what way self-tracking devices that use hypernudging could violate decisional and informational privacy simultaneously, we should focus on two sorts of violations that are also deeply intertwined. First, we should look for aspects that violate the user's controlling and limiting abilities with regard to data collection about their decisions. Secondly, we should look for aspects that violate user's abilities to control interference with one's decisions based on data collection. I present several self-tracking examples that illustrate how the two dimensions are compromised in self-tracking as a hypernudging technology. I will conclude this section with a discussion of three potential objections against my argument.

3.2 Controlling Access to Information about Decisions

There are several aspects about hypernudges that violate the user's ability to control and limit data collection regarding their decisions. First of all, hypernudges are networked and collect data from many different sources. Secondly, they have a recursive nature, processing information in order to in

turn shape the user's decision-making process. Subsequently, information about certain decisions is used to shape other, future decisions. Information about decision-making behaviour, including the decisions themselves, is therefore of crucial importance to hypernudging. However, users have virtually no ability to control this informational access to their decisions. A good example is the recent scandal involving the WeVibe, a vibrator that tracked the sex life of its users through a corresponding app. The app collected usage information and connected it to user's e-mail addresses and customer accounts without their knowledge or consent (Domonoske 2017).

Decisions about our sex lives, our political preferences and our health are considered 'private', in the sense that they are not anybody's business in most social contexts. However, Big Data driven technologies are slowly blurring the boundaries between contexts, granting access to parties that formerly did not have access to information about your decisions. Commercial enterprises such as FitBit, Facebook, Amazon and Google now know when users decide to quit smoking, lose weight, vote Democrat, start a family or change careers. More importantly, based on user information, they know what decisions users are likely to make in the future.

This is problematic for several reasons. The pervasive data collection and surveillance results in a loss of control over the information about one's decisions, because third parties are able to access this information and use it for ends that the users could not foresee (Brey 2006: 161). The parties that control hypernudges are usually actors with commercial interests. In order to create self-tracking technologies, they should be commercially viable. Users pay for the services with their data and the choice-architects use this data for their commercial ends. Examples include not only health insurance agencies such as Vitality or Aetna, that adjust health premiums in return for using a self-tracking technology and achieving certain health goals, but also employers, such as Amazon, who use self-tracking technologies to increase productivity by monitoring the actions and choices of their employees (Boyd 2017 and Dato 2014). A particularly hair raising example is the video game company Activision Blizzard, that encourages its employees by paying them one dollar per day to use an app called Ovia Health, which tracks

pregnancy. The company has access to this information, which allows it to monitor ‘how many of their employees are pregnant, trying to get pregnant or facing high-risk pregnancies’ (Mahdawi 2019).

Information that was formerly not accessible by, for instance, one’s employer, like one’s geo-location, fitness or menstrual cycle, becomes accessible and subject to evaluation, interpretation and ultimately, interference. Data that is currently collected can be used to make predictions about groups and individuals and steer how they will behave in the future. For instance, information about your lifestyle decisions may become an excuse to interfere with your lifestyle choices (“Your geo-location indicates you were moving in Amsterdam last Monday at 02:00AM, while we had an important meeting on Tuesday morning. Can you explain your behaviour?”). Data can be retroactively used for purposes beyond our current imagination. Being aware of this can cause a ‘chilling’ effect on our behaviour.

Finally, it is difficult to control or expect what decisional information is used in order to receive unbiased and ‘accurate’ hypernudges. Hypernudges feed past decisional data into choice architectures. This can create a feedback loop that results in a ‘self-fulfilling prophecy’ (O’Neil 2016: 144-146). If you chose thrillers on Netflix in the past, Netflix may recommend you thrillers in the future, which you will subsequently choose, thus reinforcing the feedback loop. This hampers serendipitous encounters, creating Pariser’s notorious filter bubble (Pariser 2011). However there is a more serious filtering problem, namely, collaborative filtering. Hypernudges collect data from ‘people like you’. You may subsequently receive options that are ‘personalized’, but not only based on your personal data but the data of an entire population. This can lead to unjust and discriminatory choice architectures. In order to make decision-making processes more efficient, ICTs use profiles: stereotypical (social) categorisations of data patterns that can be powered by surveillance. Profiles ‘produce new forms of vulnerability’ (Ball, Koskela et al 2009: 352). They hide or remove social contexts and relationships by reducing bodies and behaviour to data; data that can be easily controlled and manipulated and is enshrined in a

misleading aura of technological objectivity and neutrality (Monahan 2009: 291). For instance, because a user's geo location indicates that one runs laps in an area where the zip code corresponds with 'bad' public health, one may be excluded from a form of health insurance or you may be targeted with alarming health warnings or pricy health products (O'Neil 2016). Hypernudges may perform actions that do not correspond to the needs or intentions of their users, simply because they made incorrect inferences and/or because the results are unjust (Brey 2006).

In sum, who is in charge of the data, how the data is used (in the future), how the data is interpreted, shared, how long it is saved and what the social or individual consequences are, are all beyond the control of the user (Mittelstadt & Floridi 2016: 319).

3.3 Controlling Interference with Decisions

Based on Information

Another cluster of issues revolves around the fact that hypernudges, based on Big Data collection, can interfere in a user's decision-making processes. There are several aspects of hypernudging which violate the user's ability to control interference with one's decisions based on their information.

First, the main worry concerning hypernudges is that they meddle with our private lives through their interference with our decision-making processes. Moreover, the worry is that the rationales and reasons behind the choices they offer us will remain hidden to us and that we will therefore not even be aware of the fact that we are being steered as we passively consume the defaults offered by the 'seamless' informational environments we increasingly live in. Having choices, being able to identify with one's choices and being able to provide reasons for these choices, are fundamental aspects of being a competent decision-maker. And yet, hypernudges remain hidden. Why one is offered a higher health insurance premium, recommended a certain exercise program, or a particular career prospect is unclear. Based on extensive surveillance and the sale of personal data, significant choices in our

lives can be interfered with in hidden and unobtrusive ways by (un)known third parties -including companies and governments.

Secondly, contrary to nudging, hypernudging is robbed of its soothing blanket of libertarianism. One of the ground rules of nudging is that all options remain available to the user (Sunstein & Thaler 2003). These options may be re-ordered, but none are taken away. In recommender systems, such as hypernudging, options are not offered to you based on the user profile. From every 100 posts, a user may only see 10, selected by a smart algorithm. Users would therefore never know what the other options were. Also, a large portion of the selection that users see on Facebook or Google is visible because someone paid to make it visible. Moreover, nudges should always be in the best interest of the nudgee. The problem is that the pre-selection of choices offered by the algorithm to the self-tracker may be more aligned with the interest of the actor that controls the technology than with the user. The user may then be steered in a certain commercial or political direction (Owens & Cribb 2017: 12-14). As stated before, a user profile does not only represent the needs of the user, but also those of third parties. The devil is in the default. A hypernudge can 'tell us what to choose' because it will require several actions to negotiate and correct the default options or to uncover the options that are not shown to us (Brey 2006). This severely limits the user's control for restricting interference with her decisions based on her information. It could even be argued that even constitutes a case of coercion (Raz 1986: 377–378).

Thirdly, these systems are without visible, responsible agents. Users often do not know who interferes with their lifestyle, career choices or political affiliation based on personal data or why. This is a violation of the user's ability to control interference in one's decisions based on their information. Part of having decisional-privacy means being able to have reasonable expectations about who can and cannot interfere and to be able to hold actors accountable for (the consequences of) transgression of these boundaries.

Fourthly, the hiddenness and unobtrusiveness of hypernudges is particularly risky in light of its scope and structural cumulative effect.

Hypernudges can influence many people at the same time, with a tailored menu of choices and create a constant barrage of intrusions. This amounts to structural interference in many different domains in a user's life, which is very difficult to control.

3.4 Three Objections

This section discusses three potential objections to my argument. One objection could be that collecting and sharing one's data are part of the trade-off that offers the benefit of scaffolding one's autonomy in return.

This section discusses three potential objections to my argument. One objection could be that collecting and sharing one's data are part of the trade-off that in return offers the benefit of scaffolding one's autonomy.

In response, I do not argue that it is wrong or impossible to scaffold one's autonomy by using technology that collects one's data. I do, however, argue that a technology can never truly scaffold a user's autonomy, especially when it violates informational and decisional privacy. This is the case when the choice-architect is a commercial or other third party that should not reasonably be expected to interfere with one's decision-making process when it is unclear how and why parts of our decision-making process are interfered with (Van den Berg 2016: 186-188). In practice however, monetization of data is part of the business and development plan of most viable self-tracking technologies. The widespread use of non-commercial self-tracking technologies is therefore unlikely.

A second, and related, objection one could make is that using self-tracking technologies implies consent with their operation and its subsequent effect on the user.

My response is that the problem is that Big Data presents a challenge to the meaningfulness of consent. Meaningful, informed consent requires awareness and knowledge of the practices of the technology, which is problematized when these practices are hidden. When we consent to what happens to our data, we usually do so based on experience and a combination of contextual legal and social norms. Before, those expectations

we consented to were relatively clear and easy to enforce when transgressed. However, emerging networked technologies blur informational boundaries and corresponding norms and expectations. With the widespread and ubiquitous collection of data, individuals often are unaware that their data is gathered and unable to review all the processes their data is involved in. Moreover, they are unable to assess whether these are lawful, let alone to go to court if they are not (Van der Sloot 2017: 77). Also, users often rely on informational boundaries and norms that pre-date the Big Data era when they use a new technology (Patterson 2013). Furthermore, because the practice of these technologies changes rapidly, the risks change as well. Corporations change their policies, take over formerly idealistic start-ups and draw up incomprehensible or deceptive terms and agreements (Turow et al 2007: 747). Data may be used for other (harmful) purposes in the future, which we cannot currently foresee (Van der Sloot 2017: 76).

A third objection to my argument would concern what might appear to be the most obvious resistance strategy, namely, simply not using self-tracking technologies. One might wonder why this is not a viable strategy. Why would we simply not stop using the technology altogether?

There are several reasons why I do not think that this is a viable strategy. First of all, in order to avoid the harms of self-tracking one should be able to afford not to use the technology or have the resources to buy or use other technologies that do not violate one's privacy. This is unfortunately dependent on one's privileges (Prainsack 2017: 121-122).

Furthermore, the use of self-tracking technologies is becoming increasingly institutionalized or 'pushed'. Employers, health insurers and even NGO's, 'offer' them to their employees, clients and target-groups (Lupton 2014: 7).⁵⁴

⁵⁴ For Unicef's self-tracking initiative see: <https://unicefkidpower.org>. For a health insurance example that cooperates with FitBit or an Apple Watch see <https://www.investopedia.com/news/fitbit-healthcare-deal-unitedhealth/> or <https://www.vitality.co.uk>. For an example from the workplace see: <https://www.theverge.com/2018/2/1/16958918/amazon-patents-trackable-wristband-warehouse-employees>

Most importantly, resisting the harmful aspects of technology by advising users to stop using the technology shifts the responsibility for a political and social problem, with regard to how we (should) handle data and protect the value of privacy, onto the individual.

4. Powerful Means, Profitable Decisions

In this chapter I aimed to both provide an evaluation of hypernudging and an exploration of decisional privacy as a helpful conceptual tool for evaluating hypernudging in self-tracking. To close my argument, I want to draw two corresponding conclusions. Firstly, I evaluated hypernudging and argued that under certain conditions, hypernudges may violate both informational and decisional privacy. Hypernudging is a key example that shows how informational and decisional privacy are closely linked and may both be threatened. Big data driven decision-guiding processes collect and interpret data about our decisions on an unprecedented scale, with unprecedented scope, across multiple contexts and from multiple sources. This real-time surveillance allows for real-time (re)configuration and further personalization of choice architectures. This makes the technology highly appealing but also very powerful (Fogg 2003). Moreover, contrary to the example from *In Persuasion Nation*, where it is very clear that one is steered by corporations, hypernudges are often hidden. We have to be careful when allowing hidden technologies into the fabric of our online environment and our decision-making processes. Hiddenness complicates the fact that corporations produce most self-tracking technologies. Collected lifestyle and health data can be used for steering users into making ‘profitable’ decisions, to act on certain offers, services or products. This makes users vulnerable to unwanted, profit-driven, interference and intrusion in health and lifestyle related decision-making processes.

Secondly, I argued that decisional privacy has value as a conceptual tool for evaluating hypernudges in self-tracking. As we are increasingly adopting more self-tracking technologies that use data to steer our behaviour, it is helpful for understanding and criticizing hypernudges if we

conceptualize hypernudging not only as an informational, but also as a decisional privacy issue. The two concepts are part of a mutually reinforcing dynamic. Intuitions about the manipulative aspects of hypernudging technologies can be specified as violations of informational and decisional privacy. Moreover, now that I have argued that self-tracking technologies that use hypernudging are ethically problematic, it follows that other technologies, like Facebook, are problematic too.

In sum, self-tracking technologies that use hypernudges are potentially powerful means of behavioural change. Although self-tracking technologies are intended to support user autonomy, they might compromise autonomy on a different level. Self-tracking technologies can interfere with, influence and steer our decisions with regard to our behaviour based on extensive data collection about our decisions. Self-tracking technologies promise to empower users but violate informational and decisional privacy when commercial parties are involved in hidden, extensive surveillance and interference with decision-making processes that they should not reasonably be expected to be. Since informational and decisional privacy protect autonomy, autonomy is under threat. Self-tracking technologies that violate informational and decisional privacy are therefore problematic from an autonomy perspective.

In the first two chapters we saw how self-tracking technologies that aim to improve one's self-management may actually undermine autonomy because they violate our informational and decisional privacy, compromising our ability to present ourselves autonomously in different social contexts. In the next two chapters I analyze and evaluate commercial social network services that use surveillance, quantification and personalized feedback to improve a person's management of their social relationships for the sake of living flourishing lives. I start by investigating the ambiguous experiences of teenage girls with visibility on commercial social network services such as Instagram, SnapChat and Facebook and how these affect their social interaction and self-understanding.

Big Brothers and Little Sisters

Evaluating visibility on social network services

Introduction

When the teenagers Jan, Julia and Ella were interviewed about their experiences with visibility on Instagram on the podcast series *This American Life* by Ira Glass they said:

“

JULIA: It's like i'm-- i'm a brand, and i am like--
 ELLA: You're trying to promote yourself.
 JULIA: The brand. i'm the director of the--
 IRA GLASS: And you're the product.
 JANE: You're definitely trying to promote yourself.
 JULIA: To stay relevant, you have to--
 JANE: You have to work hard.

”⁵⁵

Recent empirical research on girls' (age 12-20) experiences with regard to visibility on social network services points out the tension between the participatory, empowering aspects of SNS for the development of meaningful social interaction, relationships and identity construction on the one hand and the oppressive dynamics present in and fostered by the very same spaces that hinder equal opportunities for self-presentation and the development of meaningful social relationships on the other.

This chapter provides a conceptual contribution for interpreting and evaluating girls' ambivalent stance with regard to visibility on SNS from the perspectives of surveillance and manipulation. In doing so, I respond to calls for increased attention for gender and race in studying surveillance (Bailey

⁵⁵ This American Life, Ep.573, 2015. See: <https://www.thisamericanlife.org/radio-archives/episode/573/status-update?act=0#play>

2015; Fisher and Monahan 2011; Koskela 2012; Monahan 2010; Steeves & Bailey 2016a).

The aim of this chapter is to explore the value of visibility on SNS for strengthening autonomy and to what extent 'being seen' within the social-technical environment of SNS can be understood as oppressive or disempowering.

In order to carry out this evaluation, we need two concepts. First, we need the concept of surveillance in order to understand both the empowering aspects and disempowering aspects of visibility (Albrechtslund 2005, 2008; Andrejevic 2005; Koskela 2004; White 2003; Senft 2008). Secondly, and relatedly, we need the concept of manipulation, in order to assess whether SNS steer and influence girls' self-presentations in a problematic way (Christman 2009; Mackenzie 2008; Stoljar 2000; Oshana 2005). I argue that, despite the potential for empowerment, visibility on SNS should be understood as disempowering as a result their manipulative features that are driven by a commercial interest and enabled by consumer surveillance which undermines the potential for caring forms of (peer) surveillance. My argument consists of six steps.

I start with a brief analysis of the introductory case (a radio interview from *This American Life* with three teenage girls) about visibility on Instagram that illustrates the tension girls experience between its empowering ('free candy') and oppressive aspects ('I'm a brand').

Section two discusses this tension from a theoretical perspective, describing a similar problematic that surveillance studies struggles with in terms of 'caring' and 'oppressive' surveillance. Some authors argue that visibility could be empowering, especially when it entails multidirectional surveillance (Lyon 2006; Marx 2015). I discuss the different types of surveillance that can be found on SNS. I pay special attention to the commercial character of SNS and their interest in consumer surveillance.

Section three discusses the experienced tensions between ‘seeing and being seen’ on SNS that girls report in empirical research (Steeves 2016; Steeves & Bailey 2016b; Regan & Steeves 2010).⁵⁶

Section four focuses on the commercial character of SNS. It connects the commercial interest in consumer surveillance to manipulation. I sketch the main characteristics of manipulation and the ‘red flags’ we should look out for when we assess the online environment (Baron 2014; Gorin 2014). These red flags are: hiddenness, taking advantage of vulnerabilities and commercial interests.

Section five interprets girls’ experiences with visibility on SNS from the perspectives of consumer surveillance and manipulation. I evaluate the technological architecture, its ensuing social norms and embedded marketing practices. I argue that visibility on SNS takes place in an unsupportive social-technical environment, consisting of manipulative features fostered by the commercial interests in consumer surveillance. Commercial SNS privilege and foster stereotypical gender roles, norms and behaviour in its architecture, social norms and gendered marketing practices, instead of more or less autonomous self-presentation (Bailey 2016; Bailey et al 2013; Steeves & Bailey 2016 a,b; Marwick 2013; Monahan 2009.)

The chapter concludes with a brief evaluation of the ambivalence between the empowering and oppressive sides of visibility on social media. Users need supportive social-technical environments that allow them to negotiate their visibility and autonomous self-presentation. This is compromised when these environments are driven by hidden mechanisms and commercial incentives. While girls may have empowering experiences

⁵⁶ For this chapter I rely on empirical research from the EGirls-project as conducted by the University of Ottawa, Canada. This research includes the perspectives of young Canadian women (girls) of different ages, ethnicities and from both rural and urban areas. Nevertheless, we should take into account that there are many different forms of oppression and empowerment. Especially in interpreting young women’s experiences we should take into account that this interpretation may have been susceptible to biases. At the same time, this is incredibly informative and insightful research about girls’ experiences that provides an interesting starting point for a normative perspective on visibility on SNS in order to enhance our understanding of this phenomenon.

with visibility, there is no such thing as ‘free candy’ on commercial SNS. ‘Being seen’ is simultaneously manipulated for the sake of economic interests, involving oppressive surveillance rather than promoting autonomous self-presentation. When manipulative architectural and marketing features that foster gendered norms of visibility and presentation are baked into the structure of a social-technical environment, this undermines user’s autonomy in an insidious manner.

Before I start my argument, I want to address a potential question about the subjects of this chapter. Why girls? Of course, the tension I discuss is one that many people experience online, not only girls. Furthermore, teens are incredibly resourceful in their strategies to use SNS to their advantage (boyd & Marwick 2011). Yet, girls may in specific ways be prone to the ambivalence regarding the visibility that arises in the context of SNS. SNS perpetuate gendered stereotypes for commercial ends. Finally, a chapter on teenage girls might be particularly interesting in light of developing autonomy. Girls are in the midst of this process and we should be especially careful that their social-technical environments support their capacities for developing autonomy rather than undermine them.

1. Free Candy

In 2015, Ira Glass, host of the popular podcast series *This American Life*, interviewed three teenage girls on his show about the trend of sharing selfies and receiving comments that are focused on praising each other’s physical appearances on Instagram and SnapChat.⁵⁷ Glass lets the girls speak about the role of social media in their lives. When discussing social media, their stories reflect familiar teen insecurities. Yet, SNS such as Instagram have clearly added a new dimension, exacerbating some of these social dynamics that people who grew up without SNS may not have experienced to the same degree. Instagram is a free SNS and mobile application owned by Facebook that revolves around the sharing of images and short videos. It is

⁵⁷ This American Life, Ep.573, 2015. See: <https://www.thisamericanlife.org/radio-archives/episode/573/status-update?act=0#play>

intended as a platform for publicity and visibility: users can follow each other and connect to their peers. SnapChat is also a mobile application used for sharing photos and videos, but these are only temporarily visible to the recipient (varying from 1 to 10 seconds).

During the episode, the three girls explain their daily practices in maintaining their Instagram profiles. “Following” other user profiles and “commenting” on their posts are common practices on SNS. They are used as a means to forge and foster social connections: it shows who is friends with whom and also expresses whom you would like to be friends with. For instance, it matters who comments and how fast. Close friends are supposed to chime in with support on their friend’s posts within a short time span. If they do not, this has social consequences: it may indicate a lack of friendship or closeness. Interestingly, the majority of comments among girls revolve around physical appearances (e.g. ‘you’re so pretty’, ‘you’re gorgeous’, ‘beautiful’ etc.). In the interview, the three teenagers express that it is nice to tell someone that they are pretty. It makes them feel good, especially when it comes from someone they care about:

“

ELLA: Like, it does make you feel good. You’re like, oh, i’m getting all these comments. Like, people like my photo. They think i’m pretty. Like, they’re saying that you’re pretty. And if someone comes up to you and says you’re pretty, like, you’re obviously going to be like, thank you, if it makes you feel good. Because it just does. Like, that’s like human nature. Like, you’re going to feel good.

”⁵⁸

Glass suggests that these comments are superficial and hollow when they are a daily treat and they agree. Nevertheless, the comments still make them feel good; they are like ‘free candy’.

Social media are important because it allows users to ‘see’ who is doing what. It provides them with a picture of their social relationships, of their network, the social diagram and position within that network:

⁵⁸ *ibid.*

“

JULIA: Just to see, like, the whole-- like, the whole social like map.

JANE: Looking, mapping out your social world, seeing who's with who, who's hanging out with who, who is best friends with who.

JULIA: If you didn't have it, like, i feel like i'd be missing so much. And it would just—

JANE: Because you wouldn't see what other people were saying. A lot goes on.

”⁵⁹

Maintaining an online profile also means a lot of hard work. After all, knowing that your posts will be there forever (saved or shared), posting a picture requires serious deliberation. The girls explain that ‘selfies’, pictures of oneself usually taken with a smartphone and shared on social media, are therefore first shared for approval within a close circle of trusted friends (for instance on WhatsApp), before they are officially posted. Posts should not become a liability in the future.⁶⁰ One of the teenage girls refers to herself as ‘a brand’ and that she considers herself the director. She affirms that by expressing that she is constantly promoting herself. It is important to be ‘relevant’. It means that people care about you and what you are doing or posting. ‘Being seen’ is also a form of care that supports one’s sense of confidence:

“

JANE: Relevant means that people care about what you're posting on Instagram. People—

JULIA: Care about you.

⁵⁹ *ibid.*

⁶⁰ In an interview with Ottawa based NGO Media Smarts, the interviewee reported that teenagers rather post a selfie without a face or a picture of a sunset (success guaranteed) than a non-validated picture. In fact, many teenagers report that they rather post the sunset than a selfie because a selfie always invites criticism. Moreover, teenagers report that they have different social media outlets and even separate Instagram accounts for different kinds of content geared towards different audiences

JANE: --want to know what you're doing. People will open your Snapchat stories.

⁶¹

This is also the reason why the interviewees express that the beginning of high school is difficult: the rearrangement of the social structure causes uncertainty about who is 'relevant'. Relevance also encourages jealousy, for instance about looks and social contacts.

The *This American Life* interview, however brief, illustrates some of the ambivalent intuitions users have about visibility on SNS. As we will see, these intuitions largely resonate with recent empirical research on girls' experiences. In the next section I will make a start unpacking this ambiguity by first exploring when visibility is considered caring and when it is considered controlling based on insights from surveillance studies.

2. Surveillance: Caring or Controlling

When is visibility empowering and when does it become disempowering? Ambivalent intuitions regarding visibility on SNS are supported by a theoretical debate within surveillance studies. Particularly ambiguous are environments where visibility is multidirectional, like social media (Steeves & Bailey 2016a). For instance, watching and following one's peers on social media in order to actively participate in a community is looked upon as empowering, while turning one's online presence into a 'brand' that has to be maintained under the gaze of one's peers seems disempowering.

Disempowering visibility is often associated with 'surveillance', but within surveillance studies 'surveillance' is not by definition oppressive. In fact, it can also be considered caring, in the sense that it can be supportive of empowerment. In order to understand this debate, I briefly explore several understandings and uses of the term by surveillance theorists.⁶²

⁶¹ This American Life, Ep.573, 2015. See: <https://www.thisamericanlife.org/radio-archives/episode/573/status-update?act=0#play>

⁶² Most surveillance theories can be traced back to Michel Foucault's theory of panopticism: the social theory that explains the disciplining power of surveillance. Originating with

So what is surveillance? Surveillance predominantly refers to the monitoring of others through gathering data on individuals or groups (more precisely: patterns of behaviour, relationships and groups) with technological means in order to extract or create information to make classifications and predictions (Marx 2015: 735-736).⁶³ Surveillance is a process, but also a structure and a tool. Examples include profiling, big data analysis, camera-surveillance and GPS-tracking but also ‘following’, ‘friending’, ‘liking’ and ‘lurking’, enabled by social media and smartphones (Marx 2015: 738). In a world in which our offline and online lives have merged, this creates a general sense of ‘being watched’, even if we are not sure by whom or why, leading to related concerns about social control, about being ‘manipulated’ and, ultimately, oppressed. As Torin Monahan argues:

“Rather than simply being about people watching people, I understand surveillance to be about exercises of social control that are facilitated by technological systems of identification, monitoring, tracking, and data analysis.” (Monahan 2009: 291)

Surveillance as (social) control is the most popular definition amongst contemporary authors. This definition is bound up with a negative normative status, which is largely substantiated by historical events (such as the surveillance by 20th century totalitarian regimes and the data collection

Jeremy Bentham’s Panopticon, this architecture induces in its inmates a state of permanent visibility, causing them to adjust their behaviour according to a perceived social norm, which has more recently been described as the ‘chilling effect’. The chilling effect is generally viewed as oppressive. The appeal and relevance of panopticism is still apparent. New information and communication technologies can be interpreted as (reversed) panopticons in which the many watch the few or vice versa, causing us to become increasingly transparent citizens, users, friends, employees, clients and patients. See: Foucault 1977. For the development of this theory within surveillance studies towards a more contemporary interpretation see: Deleuze 1992; Haggerty & Ericson 2000

⁶³ Like Gary Marx (2015), I use the word monitoring here, because not all forms of surveillance use visual means. Also, surveillance is not necessarily reserved for humans. In fact, the act of surveillance is now often carried out by automated systems and it would be strange to suggest that automated systems ‘observe’.

practices of the National Security Agency as revealed by Edward Snowden in 2013).

Moreover, (feminist) surveillance theorists argue that surveillance is gendered. According to this perspective it is essentially a masculine form of social control (Manning 2008; Monahan 2009). The categorization implied in surveillance is problematic from the perspective of ‘gendered and sexualized persons’ and produces ‘new forms of vulnerability’ (Ball, Koskela et al 2009: 352). For example, new technologies hide or remove social contexts and relationships by reducing the body and the behaviour (of women and other marginalized groups) to data; data that can be easily controlled and manipulated and is enshrined in a misleading aura of technological objectivity and neutrality (Monahan 2009: 291). This way, stereotypes can be covertly reproduced within the structure of the technology.

Nevertheless, the term ‘surveillance’ does not as such necessarily imply manipulation or oppression (Marx 2015: 734-735). In fact, Gary Marx argues that it may also be understood as protective and caring:

“The English noun ‘surveillance’ comes from the French verb *surveiller*. It is related to the Latin term *vigilare* with its hint that something vaguely sinister or threatening lurks beyond the watchtower and town walls. Still, the threat might be successfully warded off by the vigilant.” (Marx 2015: 734)

Some authors argue that surveillance is a neutral term and its normative status depends on contextual expectations (Marx 2015: 733-734). Surveillance can also be interpreted as caring. David Lyon proposes that surveillance is about both care and control (Lyon 2006). Caring, then, entails a benign kind of paternalism. Paternalistic surveillance as ‘care’ can sometimes create the supportive environment that empowers. It can do so if it allows you to act in a way that you would otherwise not be able to do or would not feel safe to do. For instance, we can think about walking through dark alleys at night under camera surveillance. Yet, this type of surveillance still implies an asymmetrical power imbalance and dependency on the ‘watcher’ (Regan & Steeves 2010: 153). Both care and control are susceptible

to accusations of paternalism, manipulation and even coercion, because of the non-reciprocal and asymmetrical relationship. Care easily turns into (unwarranted) paternalism and control can turn in to coercive and manipulative exercises of power (think about camera surveillance during the day or on every street).

But what if visibility is not (only) structured according to asymmetrical, top-down surveillance? Let us take a look at the types of surveillance we find on social network services. Social Network Services (SNS) are online platforms, websites and (corresponding) smartphone applications for social interaction that are developed, owned and maintained by large corporations. More precisely:

“An online social network is an Internet community where individuals interact, often through profiles that (re)present their public persona (and their networks of connections) to others.” (Acquisti 2006: 2)

Major SNS include Instagram and Facebook. Instagram, founded in 2010, is owned by Facebook, which bought the service in 2012 for one billion dollar. All SNS have their own signature. Facebook is aimed at connecting ‘friends’ and acquaintances. Instagram has an ‘artsy’ signature and only allows the uploading of photos and videos. It is famous for the option to apply a ‘filter’ to one’s pictures, giving photos this ‘artsy’ look. Its main competitor is SnapChat, a social app that facilitates sharing videos and photos that will be deleted after being seen.

The technological architecture of SNS enables (re-) sharing, cross-posting (across different social media) and (permanent) storing of information by (un)known audiences, for instance by using ‘tags’, downloading and sharing buttons or apps. Social networking can then be described as:

“(…) the type of watching where individuals voluntarily reveal rather detailed information about themselves and their activities to “friends” on corporate-owned sites that seek to collect and use the information for commercial purposes.” (Steeves & Regan 2010: 153)

So what does visibility on SNS entail in terms of surveillance? There are two types of surveillance that are most typically enabled and prominent on SNS.

Moreover, they have become intertwined on SNS. The first is peer surveillance and the second is consumer surveillance. Peer surveillance is also referred to as social, lateral or participatory surveillance (Albrechtslund 2008; Andrejevic 2005; boyd & Marwick 2011). In other words, it involves users monitoring each other. On SNS users can monitor each other by checking out each other's posts, comments, photo's, preferences and other information. These 'others' are usually peers, but these are not always close acquaintances. For instance, among one's FacebookFriends there can be colleagues, employers, vague acquaintances and complete strangers, aside from the known, close group of peers that you accepted as FacebookFriends and consider your 'actual' friends. In addition, depending on the settings of your account, your FacebookWall is accessible to all Internet users.

The second type of surveillance that is prominent and typical for SNS is consumer surveillance. Embedded within the social structure of online peer interaction, there are commercial enterprises that 'watch' the behaviour of users and collect their data in order to target them with personalized advertisements. Through consumer surveillance, companies are able to map and profile the users of a social network, target this particular network with advertisements and services and sell the profiles to corporations interested in the data (Turow 2011). While this type of surveillance is mostly automated and regulated by algorithms, there are also more direct forms of interference that involve the commodification of online social status and visibility. Corporations often approach users of popular SNS profiles that have many followers or 'friends'. By promoting their products, influential social networkers ('influencers') can garner a profitable income. Self-branding has become an enviable practice and micro-celebrity ship has become a goal worthy of pursuing (Marwick 2013). In particular, fitness and beauty accounts are interesting for marketing strategists, because they come with a lot of product. Most visitors of the accounts of 'influencers' will not, in fact, be able to tell that these accounts are advertising platforms.

In sum, visibility on SNS is multi-directional. This means that the technology allows users to watch each other, that companies can watch users, that users can watch politicians and so on. It seems counterintuitive to

suggest that all forms of visibility on SNS are forms of oppressive surveillance (Marx 2015 p. 736). Control is just one possible outcome of surveillance alongside outcomes like entertainment or protection. This resonates with Kirsty Ball's argument:

“Surveillance may be tolerated or even sought after because (...) individuals are ambivalent towards surveillance because there is sometimes no identifiable ‘watcher’ or perceivable ‘control’ being asserted, or because the pleasures of performative display override the scrutinies that come hand-in-hand with self-revelation.” (Ball 2009: 640-641)

Surveillance can be a form of participation, resistance, protest and the (re)claiming or appropriation of spaces, discourses or bodies (Albrechtslund 2005, 2008; Koskela 2004; Lupton 2015: 30).⁶⁴

In the next section I use the concept of ‘visibility’ as a somewhat neutral term to describe girls’ ambiguous experiences with ‘seeing and being seen’ on SNS. In Section 5 I will evaluate whether visibility on SNS is empowering by using the insights of surveillance studies and by using the notion of manipulation which I will introduce in section 4.

3. Girls’ Ambiguous Experiences with Visibility

Visibility on SNS is networked and multi-directional ‘in which the many watch the one watching the many, and in which the self watches the self’ (Steeves & Regan 2010: 155). It is within this environment, that ‘girls’ experiences are shaped by competing desires to be seen and to see, on the one hand, and to draw boundaries around what can be seen and how it is interpreted, on the other’ (Bailey & Steeves 2016a: 3).

⁶⁴ Examples are *sousveillance*, which means ‘watching from below’ and is often considered an activist form of surveillance in which the many watch the few (Mann 2003 & 2004); *self-surveillance*, which is associated with self-reflection on one’s behaviour and body in order to improve oneself; and *peer surveillance* the horizontal and mutual monitoring among peers on SNS. For a comprehensive overview of forms of surveillance see: Marx 2015 or Galic, Timan & Koops 2017.

So what do girls report in terms of ambiguous experiences with visibility on SNS? On the one hand, empirical research indicates that they report that visibility can be empowering. Visibility is crucial for developing and rekindling relationship and for seeking support (Steeves & Bailey 2016a: 6). It is also crucial also for self-presentation and for identity construction:

“Without surveillance, the presentations would be one-way, without the feedback that is essential for there to be personal and group empowerment.” (Steeves & Regan 2010: 158)

Some established examples of (female) group empowerment include Facebook groups that revolve around positive body image, career advancement, sexuality, health and societal engagement. With regard to personal empowerment, girls report that the reciprocity and symmetrical aspects of mutual watching are considered empowering from the perspective of feedback. Supportive and affirmative remarks on their performance are not merely entertaining. They are meaningful and important to young female users because these comments can foster feelings of belonging to a certain community. Moreover, they can stimulate personal growth and competence (Regan & Steeves 2010: 155, 158).

From a social capital perspective then, visibility can be part of empowerment. By making themselves ‘visible’ and by watching others, girls can strengthen their social connectedness. Moreover, visibility gives users an overview of the social structure and their position within it. Knowledge about one’s status within their social network is gained by ‘watching’ one’s peers, which has been enabled by the unique features of SNS that allow you to ‘secretly’ peek over the digital fence.

On the other hand, girls also report that maintaining their online image is hard work. First, like most users, they report that due to the technological architecture on SNS it is very difficult to manage audiences. The technological architecture of Instagram, but also SNS such as Facebook and Twitter, enables (re-) sharing, cross-posting (across different social media) and (permanent) storing of information by (un)known audiences, for instance by using ‘tags’ and sharing buttons. It is therefore important that

the image is 'suitable' for all (future) audiences, hence the pre-validation of the posts discussed in the first section of this chapter. This means that experimenting with or even simply switching between one's social roles becomes very difficult when your employer, family, friends and classmates are all part of one's audience. Furthermore, the technology is experienced as something that expects a particular performance: if Instagram is 'artsy' and if Twitter is 'engaged' the performance must fit the design. Of course, these performances are subject to 'gamification' in the sense that the 'right' performances are rewarded. A notorious example is the SnapStreak on SnapChat. A Snapstreak means that the user and her friend have Snapped (meaning that they sent each other a photo or video) each other within 24 hours for more than three consecutive days. As a reward, a user earns a 'fire' emoji, a picture of a flame, next to their name on SnapChat. For example, if you Snapped for eight days, you earn eight fire emoji's.⁶⁵ SnapStreaks are indicators of friendships (just like 'likes' and 'hearts' on Instagram) and highly addictive, causing irregular behaviour among children to maintain a streak.⁶⁶

Importantly, girls express that visibility can turn into an oppressive experience when it becomes a form of social surveillance that rewards and punishes certain behavioural norms. Online 'stalking' or 'spying' on each other is a normalized daily reality and regarded as entertaining (Steeves & Bailey 2016a: 13; Andrejevic 2005). This awareness leads to self-surveillance: the further polishing of the performance according to common, broadly accepted and socially desirable gender norms, which, as we discuss in Chapter Five, may lead to reified gender norms (Frank & Klinecicz 2018). Interaction on SNS comes with a set of unwritten norms about the appropriate behaviour for girls. For instance, girls report that selfies should be 'pretty and just a little bit sexy' and 'authentic' instead of 'flaunting' (Steeves 2016: 158-162, 165; Kanai 2016: 88-89). Deviant behaviour, such

⁶⁵ <https://support.snapchat.com/en-GB/a/snapstreaks>

⁶⁶ <https://www.businessinsider.com/teens-explain-snapchat-streaks-why-theyre-so-addictive-and-important-to-friendships-2017-4?international=true&r=US&IR=T>

as showing too much skin or cleavage, is punished by labeling the subject a ‘slut’ or ‘trashy’.⁶⁷

This is a particularly harmful reality for women of color. For instance, the Dutch national broadcast agency (NOS Mashup) recently researched app-groups on communication app Telegram that aim to expose and shame women of Turkish and Moroccan backgrounds that have transgressed cultural behavioural norms of sexuality. One way of proof includes sharing nude photos, including photos of minors. These app-groups are titled ‘187 exposed snitches & bitches’ or ‘headscarves 18+’ and include thousands of users.⁶⁸ The social consequences are extreme, including rejection (of the girl’s family) by the community.

Girls in general express that they are very careful, more than their male counterparts, about what image they present online because they will be judged harsher. Some of them resort to reproducing stereotypical images of women found in the media (Bailey & Steeves 2016a: 9 & 11). Alice Marwick describes how women censure self-expression because frequent sharing of topics that are considered feminine means a loss of status in the online community (Marwick 2013: 252). Moreover, she quotes Wikipedia researcher Joseph Reagle, who argues that the culture of openness and transparency may limit women in their online involvement, because it ‘gives priority to small groups of misogynistic men while labeling concerns about sexism as ‘censorship’’ (Marwick 2013: 75).

Finally, and relatedly, girls report that they consider themselves to be ‘brands’ that need to be sold to a particular audience. The constant barrage of beauty and fitness blogs and the products and merchandise, not to mention the targeted advertisements that become entwined with these

⁶⁷ It is important to understand that we should not view girls merely as passive subjects. SNS also allow female users to actively present themselves through audience interaction. This means that we should also view girls as active producers of content for gendered consumption and as active participants within these dynamic, interactive and multi-directional surveillance environments (Steeves & Bailey 2016: 3).

⁶⁸ Nora El Abdouni <https://www.nrc.nl/nieuws/2017/12/18/er-is-een-seksualiteitsoorlog-gaande-a1585379>; Anna Pruis, Nisrine Sahla en Roel van Niekerk <https://nos.nl/op3/artikel/2207855-vrouwen-online-exposed-bangalijsten-zijn-hierbij-kinderspel.html?>;

accounts and profiles, is a daily reality.⁶⁹ Being treated as a brand and the pressure to brand one self in order to receive certain feedback are common experiences for most users, but extra challenging for girls. The commercial character of the SNS environment, driven by a market interest in consumer surveillance, compromises the potential for visibility to be empowering (Andrejevic 2002: 251; Marwick 2013). I will elaborate on this claim in Section 5.

4. Unsupportive Social Environments: Manipulation

Now that we have discussed the experiences of girls, how should we understand their ambiguous stance with regard to visibility from a normative perspective? In order to answer this question we should first rearticulate the meaning of ‘empowering’ and ‘disempowering’. As we discussed in Chapter One, in order to contribute to the development of their autonomy, people should be strengthened in their capacities for developing autonomy. If we want to find out whether visibility on SNS is empowering or not, we should look at whether a social-technical environment supports these capacities, rather than undermines them. Empowerment on SNS would involve a supportive online environment that enables girls to foster relationships and develop their identities by being able to negotiate that visibility freely with their online social relationships. Disempowerment on SNS would involve an unsupportive environment that uses surveillance and manipulates (or coerces) girls’ self-presentations for the sake of commercial interests. In order to understand the tension experienced by girls with regard to visibility on SNS, we should evaluate the oppressive and supportive elements of this environment (Christman 2009; MacKenzie 2008; Stoljar 2000). In addition to surveillance, I will introduce the concept of manipulation in order to carry out this evaluation.

When assessing whether someone’s autonomy is strengthened or undermined, there are two obvious forms of interference that indicate the

⁶⁹ Targeting children with personalized advertisements is highly effective (van Reijmersdal et al 2017) and for that reason also fiercely debated.

latter: coercion and manipulation. Both manipulation and coercion are considered incompatible and antithetical to autonomy because they both entail unwanted or unexpected interference with people's decision-making processes. Yet, (non-coercive) manipulation is a particular form of unwanted or unexpected influence that should be distinguished from coercion (Wood 2014: 26). Coercion removes all options but one, while manipulation only influences your decision-making process in such a way that one will make a particular choice.⁷⁰ Contrary to coercion, manipulation entails influencing a person to such an extent that this person will display the desired behaviour voluntarily (Wood 2014: 32-34). The latter seems an appropriate concept to apply in the case of SNS. The online environment of SNS could be an unsupportive environment due to its manipulative features.

Manipulation comes in many forms and is difficult to define. Broadly, manipulation is understood as a particular form of unwanted or unexpected influence with one's decision-making process. Yet, there are many types of influence that are unwanted or unexpected but that we would not necessarily call manipulative (coercion is also an unwanted influence). Scholars tend to disagree about the necessary conditions and characteristics that constitute manipulation (Coons & Weber 2014; Gorin 2014). Regardless of the different views, it seems that what is problematic about manipulation, is a certain indifference and recklessness with regard to the method and agent involved (Coons & Weber 2014: 14-15). For example, Marcia Baron argues that manipulation is wrong because it entails a certain disregard and disrespect by a manipulator for the manipulee qua agent (Baron 2014: 104).

Even though every definition of manipulation can be challenged with counter examples, we could still agree that when scouting environments for manipulative characteristics there are three main features that we should consider red flags. The first red flag is 'hiddenness'. I understand hiddenness

⁷⁰ While Thaler and Sunstein gratefully latched onto this argument for justifying their nudges as forms of libertarian paternalism, this does in fact not mean that manipulation is actually less threatening than coercion. While it can be rational to resist an instance of coercion, it may be much harder to resist very powerful instances of influence such as brainwashing, subliminal advertisements and, more recent, hypernudges (see Chapter Three).

here as both hidden intentions and hidden mechanisms that steer the behaviour and decision-making of the person being manipulated. Although there are exceptions, manipulation is usually ‘hidden’ and takes place unbeknownst to the victim, because this increases the chances of the manipulator to effectively steer them. This means that ‘deception’ is a very common aspect of manipulation. Moreover, this also means that manipulation often implies the bypassing of rational capacities by relying on subconscious psychological mechanisms to steer the victim in a way that serves the purposes of the manipulator.

Building on the latter, a second red flag is the taking advantage of vulnerability. Recently, Daniel Susser, Helen Nissenbaum and Beate Roessler suggested a definition for online manipulation that includes the exploitation of individual weaknesses and social vulnerabilities (Susser, Nissenbaum, Roessler 2018). For instance, an environment may be structured in such a way that exploits the vulnerabilities of girls to behave and make decisions motivated by market norms rather than self-chosen forms of self-presentation and social interaction within these environments. As discussed in Chapter Three, self-tracking technologies facilitate very precise, personalized targeting. Exploiting vulnerabilities has become increasingly easy enabled by extensive surveillance and learning algorithms.

The third red flag is the interest of the manipulee. Whether something is manipulation also depends on whether the manipulator has the best interest of the person they target at heart. Of course, one could argue that ‘nudging’, or steering people’s behaviour in their best interest, is a form of (‘benign’, but nevertheless,) manipulation. While this is an interesting discussion, I do not aim to settle this debate, but merely argue that for instance the hidden steering of people’s behaviour driven by commercial incentives rather than the interest of the user is a red flag for manipulation.

To summarize, manipulation, as I understand it in this chapter, entails hidden interference with a person’s decision-making process and their ‘opportunity to see the significant choices that the circumstances offer’ (Hill 1991: 33; Wilkinson 2013: 352). It is a form of unjustified (unwanted and unexpected as a method) interference with someone’s choices and

opportunities for identity construction (Gibbs 2015). It entails indifference with regard to the (harmful) consequences of, for instance, shaping the online architecture as the social-technical environment within which girls make choices about self-disclosures every day. In the next section I interpret and evaluate girls experiences with visibility through the lenses of consumer surveillance and manipulation by identifying manipulative characteristics of commercial SNS.

5. Evaluating Visibility on Social Network Services: Manipulative Features and Consumer Surveillance

How should we evaluate girls' experiences with visibility on SNS? What is manipulative about the social-technical environments of SNS, how is this related to disempowering forms of surveillance and in what way does this undermine the potential for empowering surveillance? Ideally, SNS would have opened up opportunities for the empowerment of girls by challenging gendered social norms and controlling their information and visibility (Senft 2008; Koskela 2004). However, I argue that the environment of SNS that steers and shapes user's experience of visibility is not necessarily empowering due to manipulative features of SNS that are driven by a dominant commercial interest in consumer surveillance. These manipulative features enabled by consumer surveillance undermine the empowering, caring potential of peer surveillance, resulting in disempowering rather than empowering visibility. I support this argument by showing how the technological architecture, its ensuing social norms and the (gendered) marketing practices that make up the online environment are deeply intertwined (Bailey 2015).

Let us start by examining the architecture of SNS and why it might be manipulative. Controlling one's self-presentation was one of the initial hopes of feminists with regard to SNS for experimenting with identity, to foster different kinds of (intimate) relationships and to challenge existing stereotypes. Yet, the technological architecture of SNS is designed in such a way that it problematizes, for instance, audience management. Due to the

business model of SNS, the commodification of user data, users are constantly manipulated into sharing their information. Consider the hidden architectural features of Facebook and Instagram that serve a commercial interest in consumer surveillance, which enables targeted advertisement. They are based on psychological research and explicitly aim to bypass and subvert the rational capacities of their users in order to make them share more information and to spend more time on these digital media (Solon 2017). These features play into the vulnerabilities of the users of SNS. These are so effective that the technologies even become addictive (Solon 2017). Moreover, features such as counting ‘likes’ have raised concerns about mental health issues, linking them to pressure caused by social media.⁷¹ This recently inspired Instagram to start a trial in some countries with a version of Instagram that does not count ‘likes’. Interestingly, marketing specialists criticize this trial for ‘crippling’ the income of ‘influencers’ on social media and the reach of social media advertisement.⁷²

A consequence of features that aim to promote information sharing is that this information may end up with “unknown others” turning multidirectional visibility into non-reciprocal, asymmetrical surveillance’ (Regan & Steeves 2010: 160-161). Furthermore, differentiation in sharing can be a great enjoyment of autonomy when it means that one controls their audiences. However, in the experiences of girls, it seems that the reverse is the case. It seems that the space controls and steers the way in which they become visible, the way they share information and present themselves. Rather than self-presenting, women are self-branding.

The main reason why the architectural features of SNS are manipulative is because business models and commercial marketing strategies shape them. In other words, marketing strategies deploy manipulative features. As Steeves points out, commercial surveillance has insidiously permeated almost every corner of SNS, thus complicating a space

⁷¹ Cuthbertson, A. 2019. Instagram Likes: Why did app remove like counts and could it affect you? *The Independent*. <https://www.independent.co.uk/life-style/gadgets-and-tech/news/instagram-likes-count-app-where-how-when-date-a9011081.html>

⁷² Ibid.

where girls can freely experiment with and create different identities for themselves.

“(...) although social media do provide girls with easy access to a wide range of popular culture products, they also provide commercial producers and marketers with easy access to the girls themselves. Intense commercial surveillance appropriates the cultural products girls publish there and uses the insight they provide into girls’ insecurities and dreams to steer social interaction on the site through commercial practices like native advertising and behavioural targeting. This not only reproduces the mainstream media stereotypes that are linked to poor body image and the sexualization of girls, it embeds these stereotypes directly into girls’ sociotechnical environment.” (Steeves 2016: 168)

So why would this practice be manipulative and disempowering? First of all, this practice entails a disregard for the interests of the users, for the sake of commercial interests. The marketing and advertisement industries benefits from displaying and fostering (gender) stereotypes because they are effective (Vezech et al 2017). This disregard for the interest of users, or girls in this case, fits the criteria for manipulation.

Secondly, consumer surveillance enables corporations to take advantage of individual or social vulnerabilities. Data that is generated through sharing can be commodified and sold to third parties that can target users with personalized advertisement, which is a very powerful tool for steering people’s behavior. Girls are targeted with gendered advertisements based on stereotypical profiles (social categorisations) (Datta et al 2015). This may indicate taking advantage of certain social vulnerabilities, which is another criterion for manipulation.

Thirdly, these practices are hidden. The fact that SNS are developed and designed according to economic incentives is often not recognized as such by users because these practices are hidden and unobtrusively embedded within the socio-technical online environment (Steeves and Bailey 2016a). Also, even if users would recognize this, it would be impossible or very difficult to manage this as an individual user. The problem is that these mechanisms can be disempowering because they operate based on economic

interests. Commercial parties participate for very different reasons on SNS that are not necessarily in the best interest of the users they manipulate in order to buy their products or to themselves become the product.

Finally, let us zoom in on the type of social norms that commercial SNS promote. I argue that the technological architecture of SNS fosters manipulative stereotypical, gendered expectations or social norms about visibility.

“Even when girls are the creators of their own online representations, their agency is exercised within a social environment that continues to privilege stereotypical images of how they should see themselves and present themselves to be seen by others, and that this creates a gendered burden that complicates their online interactions.” (Steeves & Bailey 2016a: 22)

The emphasis on visual content and hypervisibility of posts on SNS, which serves market interests, can result in gendered (social or self) policing of the body and expressions (DeSmedt 2006; Koskela 2012; Steeves & Bailey 2016; Thiel-Stern 2008). Dealing with the gendered pressure of constant judgment, competition for male attention and constructing an appropriate self-presentation is often experienced as exhausting:

“(…) especially about their bodies: a place where girls are open to criticism because they are too fat, too made up, not made up enough, expose too much cleavage (and are therefore “sluts”), don’t expose enough cleavage, have too many friends (and are therefore “desperate”), and/or don’t have enough friends (and are therefore “losers”).” (Steeves 2016: 165)

Also, the ‘relevance’ as mentioned in the interview, invokes jealousy and encourages further competition among girls for (male) attention. Steeves argues that girls engage in a type of peer surveillance that teaches them to seek male validation. This is complicated by cultural background, as became clear from the Telegram example. Validation is achieved by conforming to gender stereotypes, which is sometimes extremely difficult when one has to negotiate different socio-cultural contexts (Steeves 2016: 165).

Steeves argues that rather than opening up space for new performances of femininity, gendered privacy expectations fostered by SNS curtail the online freedom of girls. Girls adapt their visibility to a perceived (and stereotypical) social norm. This ‘chilling effect’ is a type of manipulation that is quite insidious because it comes from a group dynamic, afforded by the design of SNS, making it very difficult to detect or resist. Due to commercial interests in consumer surveillance the potential for caring peer surveillance on SNS, in which self-expression and development are encouraged, is undermined. While this is a form of manipulation that is arguably common and inherent to the patriarchal structure of our society, commercial SNS perpetuate these dynamics and reproduce gendered presentations and relations in a new way.

To conclude, making one’s self visible and therefore ‘surveillable’ on SNS is an interactive performance. Visibility on SNS is deeply intertwined and enmeshed within manipulative features driven by a (too) dominant commercial interest in consumer surveillance, which fosters gendered marketing practices as well as social and architectural expectations about performances. As such, it can become disempowering. Although research on girls’ experiences with visibility on SNS often include empowering examples, these illustrations of self-development, sociality and participation might be conceived as rare exceptions. Girls who are able to empower themselves or develop their selves freely, who are able to use these structures to their advantage, are incredibly resourceful and are able to do so in spite of an unsupportive social environment (Bailey & Steeves 2013; Schwarz 2010; Koskela 2012; Steeves & Bailey 2016; Thiel-Stern 2008; Bailey 2015). I do acknowledge that empowerment in these spaces is possible, but I criticize the marketing logic that dominates the environment, without which these environments facilitate more empowering experiences with visibility.

6. Developing Subjects

Girls report ambivalent experiences with regard to visibility on SNS as both empowering and disempowering. In this chapter I examined visibility on

SNS from the perspective of surveillance and manipulation. Commercial SNS foster an unsupportive environment because they privilege and foster stereotypical gender roles, norms and behaviour instead of more or less autonomous self-presentation (Steeves & Bailey 2016 a,b; Monahan 2009). SNS are unsupportive socio-technical environments because they contain manipulative features that serve a dominant commercial interest in consumer surveillance. They take advantage of girls' vulnerabilities and deploy a gendered and oppressive form of surveillance. These manipulative features are deeply intertwined with peer surveillance, which undermines its empowering potential by, for instance, undermining girls' capacities to freely experiment with and construct their identities. In turn, this affects how they understand themselves and their social relationships. This may undermine rather than support the development of their autonomy. This is particularly problematic in the case of teenagers who are in the midst of developing their capacities for developing social relationships. In the next and final chapter, I deepen this argument from the perspective of commodification. I discuss how our self-understanding and social relationships may transform under the commercial influence of self-tracking technologies. I explore under what circumstances commodification may become inappropriate, to the extent that it distorts relationships that are meaningful for developing autonomy.

Tapping the Heart

The commodification of selves and relationships on Tinder

Introduction

In response to a (frequently posted) online concern about a lack of Tinder matches, *Medium* posted an online article featuring tips for online dating captioned: “Am I Ugly if I Don’t Have Any Matches on Tinder?”

“(...) you do need to up your picture game, here are some tips to help get you started: 1. The overall goal of online dating is to sell your life to a woman. That’s what you’re doing. It’s not really even you that women are looking at, at first. It’s how you portray your life. So think long and hard about what kind of life you want to show women, because it’s important.”⁷³

Being on the online dating market is a matter of ‘selling’ your life to a woman, *Medium* offers. This resonates with online dating guide *SwipeHelper* that provides a guidebook for improving your ‘Tinder score’. Rule number 1: ‘Don’t be unattractive’.⁷⁴ However, besides ‘unattractiveness’, one’s lack of Tinder matches can also have a different cause. As *SwipeHelper* suggests, ‘it’s very likely you did something to piss off Tinder’s algorithm’ based on your Tinder behaviour which Tinder tracks. The alternative is to buy a subscription (Tinder Plus (\$9.99 a month) and Tinder Gold (\$14.99 a month)) that allows you to overrule the algorithm with SuperLikes (\$1 each if you buy them ‘a la carte’).⁷⁵ It seems that on Tinder people are not merely on the dating market, but also on the data market.

⁷³ Abraham, A. 2018. Am I ugly if I don’t have any matches on Tinder? *Medium*: <https://medium.com/@alexanderabraham5648/am-i-ugly-if-i-dont-have-any-matches-on-tinder-f7851b5310a9>

⁷⁴ <https://www.swipehelper.com/2018/09/23/secret-rules-tinder-algorithm-how-to-improve-score-more-matches/>

⁷⁵ <https://www.vox.com/2019/2/7/18210998/tinder-algorithm-swiping-tips-dating-app-science>

This final chapter presents the perspective of commodification for evaluating commercial self-tracking technologies. Throughout this dissertation it has become apparent that one important part of my critique on self-tracking technologies stems from the market influences that permeate our intimate relationships that were previously not accessible to the same degree. Commercial technologies that mediate the relationships with ourselves and others raise (new) ethical concerns about the commodification of relationships in a digital age. The problem is that people who use self-tracking technologies to improve their health, friendships and love lives are subjected simultaneously to an architecture that is structured according to commercial objectives of data-collection, consumer surveillance and commercial targeting. The question is how we should evaluate the influence of market interests on these intimate relationships. When does commodification of these relationships become inappropriate to the extent that it distorts and changes them for the worse?

The aim of this final chapter is to investigate to what extent new information and communication technologies, which purport to manage our intimate social relationships, in fact transform them. In doing so, I will contribute conceptual clarifications for evaluating these technologies from the perspective of commodification. To present my case, I discuss the dating app Tinder, but my observations and arguments may well extend to other commercial self-tracking technologies (QS and QRT) and social platforms that involve surveillance and quantification.

I claim that while they are not necessarily problematic, commercial dating-apps such as Tinder are prone to inappropriate commodification and should be critically evaluated. The argument of this chapter consists of six steps. I first describe the dating-app Tinder and its business model. Secondly, I define the concept of commodification and argue that commodification is a continuum. I take a non-compartmentalist approach (Radin 1996; Roessler 2015). Non-compartmentalist approaches evaluate commodification in a piecemeal fashion across contexts. Commodification is a continuum, which means that there are instances in which market interests can be a part of our social relationships without harming them (Anderson 1990). This theory is

especially convincing and useful now that commercial ICTs have infiltrated every social domain in our lives. I conclude this section by identifying two interrelated phenomena of commodification on Tinder: 1) ‘being on the dating market’ and 2) ‘being on the data market’.

In the third section, I present three potential harms of commodification. The most important harms are reification and alienation. I use Eva Illouz’ research on objectification and commodification on dating-sites (Illouz 2007) and Axel Honneth’s critique of reification (Honneth 2008). From now on I will use the term reification rather than objectification, but, contrary to Honneth, in a normative way.⁷⁶ The other two harms involve devaluation and taking advantage of vulnerability, for which I draw on various normative criteria of inappropriate commodification (Anderson 1990a; Radin 1996, Roessler 2015; Sandel 2012; Satz 2012).

Fourth, I evaluate Tinder’s practices of commodification by evaluating the phenomena of ‘being on the dating market’ and ‘being on the data market’.

In section five and six, I reflect on the evaluation of Tinder’s practices of commodification and I conclude that dating-apps mediate our

⁷⁶ Note that I have referred to both the terms objectification and reification. They both address turning certain attributes, relationships or goods into ‘things’ but have a different philosophical background. Reification stems from critical theory and is characterized as a social-ontological rather than a normative concept (Honneth 2008; Lukács 1923). Moreover, it is associated with a critique of capitalism. Lukács argues that reification is the result of capitalism. Honneth has nuanced this account and has argued that reification can also be the result of people acting in correspondence to certain beliefs or convictions that cause them to wholly deny recognition (see footnote 73). Objectification is often argued to be the normative term used for evaluation of objectifying practices (Langton 2009; Nussbaum 1995 & 2000). It fulfills this normative function most prominently within feminist critique on the male gaze, which leads to the objectification of women. Furthermore, Illouz (2007) combines the two traditions by using the term objectification within the context of emotional capitalism to indicate harmful practices of commodification when people are watched and marketed through online dating sites. I prefer the term reification, for its explanatory social-historical power, but, contrary to Honneth, I use it in a normative way. Moreover, I combine feminist and critical theoretical insights on both reification and objectification by indicating cases in which ‘the gaze’ or being watched, embedded within an architecture structured along market lines, leads to reified social relationships, among which, gender relations. The market can be interpreted as a driver of stereotypes, of reified selves and relationships.

self and social relationships by structuring interaction according to market logic and by commodifying our intimate disclosures. This changes the character of these relationships (Koplin 2018: 438), but it does not necessarily distort them because these changes do not always involve inappropriate commodification. They become distorted when commodification leads to the reification of self and social relationships, which is particularly problematic when this happens to people and relationships that are already vulnerable. Nevertheless, if we want technologies that support developing relationships that empower us, we should critically evaluate the influence of commodification as part of commercial self-tracking technologies on our self and social relations.

1. Dating-Apps: Tinder

Acknowledging a variety of phenomena of meaningful intimate relationships, there are a few characteristics that we generally regard as important to (but never constitutive, exhaustive of or sufficient for) a meaningful, caring, intimate relationship.⁷⁷ Examples of these characteristics are (reciprocal) trust, intimate disclosures and dialogue, sharing activities and decisions, recognition, respect, honest communication, equality, self-construction and development and physical intimacy (Perlman & Vangelisti 2006). Moreover, as I explained in Chapter 1, meaningful self and social relationships are important for developing an autonomous and flourishing life. The question is whether new information and communication technologies, such as dating-apps, change these relationships and to what extent this contributes

⁷⁷ By ‘meaningful intimate relationships’ I do not mean promote an ideal of a meaningful, romantic or intimate relationship. Romantic relationships exist in all shapes and sizes. Moreover, I also do not want to ignore the history of the ‘dating market’ and the economic interests that for a long time drove, and in some places still drive, the union of people. Furthermore, I do not support or promote the idea that institutionalized social practices such as marriage and engagement are the epitome of romance, the final goal of dating or the marker of a meaningful romantic relationship. I also recognize that these practices are experienced by many as exclusive, rather than inclusive, privileging white, middle class, hetero-normative relationships. Nevertheless, in whatever shape they come, meaningful relationships are important for developing an autonomous and flourishing life.

or undermines their potential for developing an autonomous and flourishing life. So what kind of technologies are currently available for managing our social relationships and how do dating apps fit in?

Dating apps, it has been argued, fall under the scope of Quantified Relationship Technologies (Frank & Klinecicz 2018). Although I have explained in the Introduction that I group dating apps under QRTs (see Lupton 2016), dating-apps *are* conceptually different from Quantified Relationship Technologies such as LoveKeeper or FlexiSpy (Danaher, Nyholm & Earp 2018). Dating-apps are social platforms that do engage in quantification of the self and social interaction, but they allow space for 'subjective' self-presentation. Self-trackers that use a FitBit or LoveKeeper, are interested in collecting as much precise or 'objective' data about themselves and their relationships as possible in order to improve their health or love life. SNS like Tinder and Instagram revolve around profiles that are highly subjective, polished, and maintained self-presentations. One has to 'sell' oneself on the dating market. At the same time, Tinder does quantify the behaviour of its users for commercial ends. The consumer surveillance and data commodification that this enables is something users do not control. Let us now take a closer look at Tinder's features.

In 2012, a new start-up, called Tinder, entered the arena of the social mobile apps (Bilton 2014). Tinder, which you access through your Facebook account, is a dating app. Dating apps have become incredibly popular. Currently, 57 million people use Tinder. Tinder is a free service, but 4,1 million people have a subscription (Tinder Plus or Tinder Gold) that gives them access to special features of the app.⁷⁸

Tinder's unique selling point is that it offers personalized potential 'matches' by showing you pictures of people that you might be interested in. You can either tap the heart or the cross, or, famously, swipe the picture to the right or left, depending on whether you want to indicate you are

⁷⁸ Of course there are more dating apps than Tinder such as Grindr (gay, bisexual and transgender men), Happn and Bumble (female user friendly). I will predominantly focus on Tinder because this app is currently the most popular, but I will incidentally also refer to Bumble and Grindr.

interested in a person or not. After both persons have indicated that they 'like' each other, a conversation window appears, and people are able to communicate in order to set up a date.

There are many different reasons for engaging on Tinder, including entertainment, boredom and looking for a brief hook-up. Nevertheless, a large percentage of users is looking for a long-term romantic relationship. While there are no statistics on the percentage of long-term relationships formed on Tinder, SimpleTexting conducted a US based survey on online dating apps and long-term relationships. 14% of the dates had ended in engagement or marriage and 15% had been going on for more than a year.⁷⁹ In 2016 Pew Research Center conducted research that showed that 5% of the Americans who are in a long term relationship met 'online' and it showed that online dating has tripled among millennials (age 18-24) since 2013 (Anderson & Smith 2016).

While dating apps sound like a convenient way to manage the finding of a romantic partner or close relationship and to overcome certain barriers with regard to finding our match, Tinder does not and cannot possibly live off of love alone. And so, Tinder has developed a lucrative business model. The imported information from user's Facebook profiles plays an important role. Without logging in through Facebook, the options generated by Tinder are not optimized because Tinder will generate non-personalized, potential 'matches'. When you do log in through Facebook, Tinder imports your Facebook profile information and geo-location and suggests a personalized set of potential 'matches' to you based on the amount of (mutual) friends, that you have, your geo-location or common interests gleaned from your Facebook profile.⁸⁰

So how does Tinder make a profit? Just like Facebook and Instagram, Tinder collects your data and sells personalized advertisements. Advertisers can buy advertisement space on Tinder and target users based on their personal data. For instance, between your potential matches, an ad

⁷⁹ <http://www.businessofapps.com/data/tinder-statistics/>

⁸⁰ https://medium.com/@monalisapaul_88268/tinder-business-model-how-does-tinder-make-money-498659f3f7cc

by a pizza delivery service may appear in the form of a match. If you ‘like’ the ad, a conversation window with the company pops up, which enables communication with the company.

Moreover, Tinder sells subscriptions. While the amount of potential matches on Tinder seems endless, it is not. There is a limit on the amount of matches you can get access to. Furthermore, your profile has a certain value. Profiles that are highly desirable (because these include very good looking people or celebrities) are ‘locked away’ behind a pay wall (Timmermans 2019). If you want to get access to more profiles or more ‘quality profiles’ you will have to buy a subscription at Tinder. Also, you can earn ‘credit’ by watching promotional videos which allow you to use more options of the app, such as the ‘SuperLike’ or ‘boosts’. The SuperLike is a feature which allows you to communicate that you are highly, rather than simply interested in someone. Moreover, you do not need a match first in order to send a SuperLike. Tinder-users who are not subscribers can send one SuperLike a day. Known subscribers can send five. A ‘boost’ is a paid feature that subscribers can only use once a month, which increases your visibility on the app, catapulting your profile to the top-30 profiles in a specific area. Also, subscribers can save time filtering through the pictures because they have access to ‘Like You’ a program that shows the user how many likes she has and who already has ‘liked’ her. Furthermore, Tinder uses quizzes and surveys that are promoted as ways to find your match to collect more data about users. Tinder has access to your location, pictures, employment status, interests and sexual preferences.

In addition to targeted advertisement, your information is used for ranking the value (attractiveness) of one’s profile, which does not only depend on your ‘looks’ but also on your Tinder behaviour. The score of your profile is referred to as your ‘ELO score’. The lower your score, the lower your visibility, the result being fewer matches (Ji 2018; Cook 2017).⁸¹

⁸¹ <https://www.swipehelper.com/2016/11/16/tinder-algorithm/>;
<https://www.swipehelper.com/2018/09/23/secret-rules-tinder-algorithm-how-to-improve-score-more-matches/>

If you accidentally break one of the non-transparent, non-disclosed ‘behavioural rules’ of the Tinder script (or game), your profile will be completely hidden without notification. Through trial and error, users have discovered some of the rules of Tinder’s matching algorithm and what factors cause the algorithm to attribute a lower score to one’s profile. ‘Swiping right’ and ‘tapping the heart’ too often (this swiping pattern may signal desperation or ‘gaming the system’ to find a match), unattractive profile pictures and the absence of attention from people with ‘higher ELO-scores’, resetting your profile (gaming the Tinder system in order to receive ‘fresh’ matches and not responding to messages after you have been matched with another person), lead to a lowered ELO score.⁸² In March 2019, Tinder announced that they do not use the ELO score anymore. It seems they now have enough data to predict who will like whom based on who they ‘swipe’. Still, the principle seems to be the same (Kaitlyn 2018). The Internet is full of disappointed and frustrated users who, unbeknownst to them, have zero matches on Tinder.

As I have mentioned in Chapter 2, the dynamic between features of technologies and the social norms that they influence has been referred to as the development of ‘techno-norms’ (van Dijck 2013). ‘Techno-norms’ of commercial ICTs are infused with marketing logic that serves a lucrative business model.⁸³ On Tinder, we witness that market norms are crowding out, replacing and changing non-market norms of social interaction. Moreover, these market-norms are embedded within the technology as features that structure our behaviour on Tinder.

Michael Sandel argues that ‘[a]s markets reach into spheres of life traditionally governed by nonmarket norms, the notion that markets don’t touch or taint the goods they exchange becomes increasingly implausible’ (Sandel 2012: 144). In the next section, in order to assess phenomena of

⁸² The ELO score was originally invented as a chess rating system, rating strong and weaker players.

⁸³ Although techno-norms result from a complex interplay between users, technology and commercial practices, I will for now focus on the market norms that are embedded within technological features.

commodification, I will first define commodification and argue that market norms and social norms can coexist.

2. Commodification: a Continuum across Contexts

What is commodification? Commodification entails turning certain ‘goods’ into commodities. ‘Commodities’ are goods that one can own, buy, or trade in exchange for another good of equal value or a certain amount of money that equals its value on the market if one so desires. Moreover, because one can put a market value on goods, commodities can be ranked according to their market value (Radin 1996). While commodification is often associated with practices we would like to avoid, it is not necessarily inappropriate or harmful. There are many instances of commodification that we find appropriate and do not worry about at all. For instance, buying groceries entails that we engage in a transaction that ticks all the boxes of commodification, but it is relatively unproblematic.

There are many goods that we treat as commodities without worrying about treating them as instruments for profit (Sandel 2012: 17). At the same time, we do not live and do not want to live in a world in which ‘everything’ - from personal characteristics and social relations to objects - is for sale. Friendship, stocks, babies, teapots, human lives, bread, status, sex, carbon output per capita per country and houses should not and are not all fully reducible to market value and subjected to the imperative of free trade.

Moreover, there are instances of commodification that we consider unquestionably immoral, such as human trafficking. Nevertheless, whether commodification is deemed appropriate, contested or inappropriate is socially constructed. For instance, we ‘accept’ that the government puts a price on the lives of human beings (Quality Adjusted Life Year), although this becomes contested when QALYs are used to weigh the purchase of costly medication for a small group of patients suffering from Pompe disease (Ramaer 2012; Rusman 2015) and we do not blink an eye when soccer clubs ‘sell’ promising sixteen year old soccer players to international clubs (Vissers 2018).

My point is that while there may be some cases that seem to be clearly inappropriate or appropriate, what we think of as harmful commodification is not as clear-cut for all goods. Moreover, the nature of the good does not determine the inappropriateness of the market, because the meaning we give to goods is socially constructed. This means that the inappropriateness or the contestedness of a commodity is something that is discussed in the context of a societal debate (Satz 2012).

Depending on the social situation in which commodification takes place, we enter the realm of contested commodities. Famous examples are the market in organs, babies and, more recently, personal data (Roessler 2015; Pham & Castro 2019).

Contested commodities are examples of commodification in which we worry whether it is appropriate that we treat certain goods as ‘things’ that we sell on the market and make a profit on. Our worries are directed towards a utilitarian marketing rhetoric that puts a price on things that we consider deeply and intimately bound up with personhood and human values such as organs, babies or data. Of course, the realm of contested commodities is hierarchical: we worry more about selling babies than we do about selling data. However, all these examples revolve around the question whether all goods can and should be quantified and summed. While some authors have argued that the answer is ‘yes’ (Brennan & Jaworski 2015), we will focus on the body of literature that argues the opposite (Koplin 2018). Then, the next, challenging question is how we should judge which cases of commodification are inappropriate.

In order to answer this normative question, we first need to sketch the field. Where do we allow commodification, if at all? Within liberal theory there are different positions with regard to how we should protect certain goods from market forces. After all, liberal theory has been criticized for its emphasis on the free market, leading to a highly commercialised form of life.

Theorists, such as Michael Walzer in *Spheres of Justice* (1983), have proposed a compartmentalist approach, suggesting that we should remove

entire spheres from the market. Some spheres should not be commodified at all if we want to guarantee just and meaningful relationships.⁸⁴

Yet, scholars such as Margaret Radin have criticized and rejected this idea of complete non-commodification by ‘walling-off’ certain spheres while others are ‘fair game’ with respect to governing market forces and market rhetoric (Radin 1996: 46-47). Radin argues for piecemeal non-commodification of certain attributes, relationships or ‘things’. She challenges the compartmentalist approach thus:

“The way to a less commodified society is to see and foster the non-market aspect of much of what we buy and sell, to honor our internally plural understandings, rather than to erect a wall to keep a certain few things completely off the market and abandon everything else to market rationality.” (Radin 1996: 107)

One could imagine instances in which market understandings of a certain exchange can actually coexist with non-commodified or non-market understandings. Radin calls this ‘incomplete’ commodification. An example of incomplete commodification would be the work of a dancer. Here, the work relationship is not understood as contested or inappropriate. The fact that the dancer receives money for her performance does not decrease the meaningfulness of her work or the meaningfulness of the relationships involved. Her performance, her work, is an expression of her personhood (Radin 1996: 106-107). I will come back to address this intuition when I further unpack what instances of commodification should be judged as inappropriate. For now, it suffices to say that there are instances in which something can still be considered meaningful while it may also simultaneously serve as a commodity.

⁸⁴ In *The Theory of Communicative Action* (1981/1987), Juergen Habermas famously sketched the dichotomy and dialectic between the lifeworld, which consists of social contexts that enable cooperation based on mutual understanding, and the system world, which is governed by an instrumental rationality (Bohman & Rehg 2014). Habermas argues - although this argument is obviously more sophisticated and complex- against the colonization of the dynamics of the system world, such as market influences upon the realm of the life world.

An advantage of a non-compartmentalist approach is that it allows one to evaluate the appropriateness of market and non-market aspects depending on the appropriate relationship between persons and things and persons, as well as relations between people. As persons are connected to other people and to things, and because communities are dependent on their relationships, it makes sense not to erect a wall around certain ‘things’ that should not be commodified, but to acknowledge that the values of personhood and community interact with the market and alter many things from their pure free-market form and to evaluate all these interactions based on their appropriateness (Radin 1996: 114).

This argument is especially convincing in the context of digitalisation. ‘Walling-off’ particular things is very difficult in the online realm and might not even be a feasible intervention at all in a system in which marketing logic has permeated every nook and cranny of the Internet, including our most intimate relationships, spurred by new possibilities for surveillance.

If market and social norms can coexist, then does commodification become problematic in the context of intimate relationships? We will see that this depends on the normative social construct of what we consider to be an appropriate relationship with oneself, an appropriate relationship between persons and an appropriate relationship between persons and things.

In the following sections I suggest two ways in which intimate relationships are commodified on Tinder and to what extent we should understand these phenomena as problematic. I investigate two different instances of commodification that may be applicable to Tinder. First, I investigate the objectifying practice of putting your ‘self’ on the market of which the distinctive harm is reification and alienation of oneself and others as a result of self and peer surveillance. Second, I explore the commodification of data as a result of commercial surveillance of which the distinctive harms are the devaluation of the social practice of dating and the unfair exploitation of intimacy and vulnerability for commercial purposes.

3. Inappropriate Commodification: Three Harms

In this section I present three harms that are associated with inappropriate commodification: reification, devaluation, taking advantage of and reproducing vulnerability.

3.1 Reification and Alienation

The major harm of commodification entails the reification and subsequent alienation of relationships. Within critical theory, the predecessors of dating apps, dating sites such as Match.com, have been explicit targets of critical analysis for their practices of quantification, leading to the commodification and reification of the self and relationships (Illouz 2007; Honneth 2008). In *Cold Intimacies* (2007), Eva Illouz describes the making of emotional capitalism by exploring the world of online dating sites. Illouz makes several important remarks about quantification and reification of the self on dating sites.⁸⁵

First, Illouz argues that the architecture of dating sites requires reification of the self. She argues that the ‘self’ is fragmented into separate categories: a picture, a biography, preferences, opinions, values and a tagline that express your personality. The idea behind it is that a human matchmaker, or algorithm, will find similarities that indicate ‘compatibility’.

Relatedly, she observes that subjectivity is ‘textualized’, by which she means that the self is ‘externalized and objectified through visual means of representation and language’ (Illouz 2007: 78). One notorious example, she cites, are the standardized rubrics that allow a person only fifty words to describe their ‘character’.

Also, Illouz claims that the act of posting a profile is an objectifying act because it converts the private self into a performance for an invisible and anonymous public. This is not necessarily harmful. After all, there are many ways in which we can present ourselves to an audience that is not

⁸⁵ Illouz uses the term objectification rather than reification, but as I announced I use the term reification throughout this chapter.

necessarily objectifying in a problematic way. As we discussed in Chapter Four, visibility has two sides.

However, according to Illouz, this new form of self-presentation has several consequences for romantic interactions between people. First, the architecture of the technology makes a user focus intensely on her self and on her perception of her own self. Moreover, it makes the user focus on both a self-ideal as well as an ideal of her potential match. Furthermore, the architecture of dating sites is organized along the lines of the market ideology of free choice. Romantic matches are now ‘commodities’ that have been structured along the lines of the market, in which a romantic match is the result of the best possible choice. Finally, the architecture of a commercial site fosters reification in the sense that it pits people who are looking for a romantic match against unknown others in an open competition. This turns the self and others into ‘a commodity on public display’ (Illouz 2007: 79).

The question arises, what might be distinctly problematic about reification of human personhood and human relationships? Critical theorists and ethicists have aimed to address this in various ways. George Lukács famously introduced the concept of ‘reification’ (Lukács 1925). He argued that when market influences are introduced in human relationships, persons increasingly view each other and relate to each other as parts in a commodity exchange. As an effect, a relationship between people has become ‘thing’-like.⁸⁶ Reification then implies a forgetfulness, or deliberate negligence, of the social-historical dynamics and relationships that a person

⁸⁶ Axel Honneth (2008) nuances Lukács account with a social-ontological approach. He suggests that reification is rather a ‘forgetfulness of recognition’. For instance, in the context of social relationships, reification entails a ‘forgetting’ of one’s ability recognize the other as a human being without losing the ability altogether which does result in the fact that it has become impossible to view the other as a person. This is not necessarily caused by capitalist ideology. The other reason Honneth offers is the fact that people are acting in correspondence to certain beliefs or convictions that cause them to wholly deny recognition. These convictions about who counts as human can result in slavery, racism or genocide. An example is the language that extremist Hutu’s around the Rwandese president Juvenal Habyirama used to degrade Tutsi’s, by calling them ‘cockroaches’, spurring the ‘fastest’ genocide of the 20th century.

is embedded in, which allows one to perceive a person with more distance, as an object.

A classic cause of reification is observation (Honneth 2008; Illouz 2007). Remember Chapter Two in which I explained how a third-person perspective causes the subject to also perceive itself as ‘something’ that can be watched, adding to the sense of being an ‘object’ rather than merely a subject to the first person perspective. Moreover, in Chapter Four, aside from empowerment we learned that visibility can lead to forms of self-presentation by users that are structured according to marketing logic resulting in practices such as ‘branding’.

(Peer-) surveillance can cause persons to forget that their own feelings, ideas and desires matter and they will adjust them to whatever the ‘market’ desires. In light of dating sites Axel Honneth makes a remark about self-reification:

“One doesn’t need an overactive imagination to picture how this might promote a form of self-relationship in which a subject no longer articulates his or her own desires and intentions in a personal encounter, but is forced merely to gather and market them according to the standards of accelerated information processing.” (Honneth 2008: 84)

Social practices, institutions, technologies or persons that coerce, manipulate or encourage persons to pretend to have certain feelings or to have a neatly demarcated personality can cause self-reification. Dating sites that push agents to present themselves in certain ways, in order to succeed on the relationships market, will cause users to experience their feelings, ideas and desires as ‘things’ that can be manipulated at will (Honneth 2008: 83).

In a reified relationship, humans will see one another and each other’s attributes as quantifiable sets of ‘objects’, as ‘things’. When these ‘things’ are instrumentalized to exchange on the market or to make a profit on, these ‘things’ are turned into ‘commodities’. This can occur within relationships with other people, viewing others as objects rather than agents, but it can also happen within our self-relationships.

Commodification is problematic when it ‘reifies’ and when it ‘alienates’ persons and relationships. Reification means that persons no longer recognize each other as human agents, as ends in themselves or ‘whole personalities’. Instead, they perceive each other, and their qualities, as objects that are separated or ‘alienated’ from their persons and social relationships.

The problem is that some ‘goods’, people, relationships and human qualities, are intimately tied up with and therefore expressive of, someone’s self. Think about one’s friendships, personality, sexuality, work or political views. To believe that one can turn them into a commodity, easily reduce them to monetary value, exchange them or separate them, without deeply affecting the relationship or person involved, points at a misconception and disregard for what it means to be human (Radin 1996: 56). Reification is, for that reason, sometimes referred to as ‘dehumanization’. The next two harms are closely related to reification.

3.2 Devaluation

Commodification is inappropriate when it leads to devaluation. By devaluation I mean, for instance, that goods we associate with human personhood and need for developing relationships have lost their meaning in that they are treated as and have taken on the character of a ‘thing’. Elizabeth Anderson and Michael Sandel have proposed that in cases of inappropriate commodification, the relationship or good at stake is degraded. For instance, the goods for sale in contractual surrogacy are beyond price. Reducing surrogacy to monetary value diminishes the inherent worth of motherhood (Anderson 1990a: 188 & 1990b). ‘Motherhood constitutes a social good whose value can only be appreciated in non-instrumental terms’ (Panitch 2016: 118).

Inappropriate cases of commodification entail that market norms crowd out social norms, although one might argue that market norms are a form of social norms. Moreover, while some cases of marketing may not be degrading in themselves, they may contribute to a kind of degradation when

they add up. This devalues the relationship, practice or good in question (Sandel 2012: 237). For instance, some ‘goods’ should only be donated, and not reduced to monetary value, in order to retain their valuable status such as the ‘gift’ of motherhood, or the ‘gift’ of blood. Furthermore, the altruistic act of blood donation could be degraded and trivialized if all of a sudden the donor receives twenty euros per 470ml (Dufner 2015; Walsh 2015). Moreover, goods that are shared as ‘gifts’ should not be appropriated for the purpose of profit or commercial exchange. If a friend ‘gives’ you free access to enjoy their beautiful garden, it would be strange if all of a sudden you start selling entrance tickets to strangers. Anderson argues that this can amount to forms of exploitation (Anderson 1990a: 189).

As discussed in Chapter One, social relationships are important to the development of an autonomous and flourishing life. In order to foster these relationships and in order to foster intimacy, we need to share something of our selves with others and vice versa. Gifts are expressions of relationships between the self and others. ‘A gift takes place within a personal relationship with the recipient or else it creates one’ (Radin 1996: 91).

Gifts, or the sharing of the self, foster intimacy. Commodification emphasizes our separateness: between ourselves and our attributes, between things and ourselves and between ourselves and others (Radin 1996: 94). In cases of contested or inappropriate commodification this is problematic because we think that these goods should not be separated from the persons or relationships involved. Fostering relationships requires ‘giving’ without the ‘things’ being given to instantly become interchangeable or reducible to monetary value. What we ‘give’ in relationships cannot be compared to something we can return to the shop to exchange it for cash. Sandel illustrates this point arguing that ‘[s]ome gifts are expressive of relationships that engage, challenge, and reinterpret our identities. This is because friendship is about more than being useful to one another. It is also about growing in character and self-knowledge in the company of others. (...) To monetize all forms of giving among friends can corrupt friendship by suffusing it with utilitarian norms’ (Sandel 2012: 129).

Information is a good example. As I argued in Chapter One, informational and decisional privacy or informational and decisional disclosures, play an important role in the development of intimacy within our social relationships. Anderson argues:

“Living on intimate terms with another person involves a mutual revelation of private concerns and sharing of cherished emotions that are responsive to the other’s personal characteristics.” (Anderson 1990a 185)

Social relationships are important to one’s personhood and to human flourishing. Moreover, intimate relationships are fundamental human needs (Koplin 2018). Inappropriate commodification would entail the devaluation of, for instance an intimate human relationship, because some good that was meant to foster that relationship was taken advantage of for the sake of profit rather than cherished in the spirit of gift. Especially when technology encourages market norms rather than self-chosen or social norms, this is problematic. Roessler states that:

“[t]he reason why commodifying and commercializing data that were supposed to belong to and stay in the sphere of social relations is harmful is because it ultimately hinders and distorts one’s autonomy and identity: by being manipulated into a certain commercialized behaviour, I am being forced to adopt a view on myself and on my social relation that is motivated not by friendship but by the market, and therefore, not self-determined, or determined through the norms of the social context.” (Roessler 2015: 149)

If, rather than contributing to the user’s need for intimate social relationships by motivating the actions of users for the sake of intimacy, one’s actions are orchestrated and steered by market-norms, rather than social norms, this could be a normative indicator for inappropriate commodification. The more users are instrumentalized for the purpose of profit making without their interests being served or taken into account, the more likely it becomes that this instance of commodification is inappropriate.

3.3 Taking Advantage of and Reproducing Vulnerability

The harms I mentioned in relation to commodification become *particularly* inappropriate when it takes advantage of vulnerability found in the context of unequal relationships or socially unjust contexts. By vulnerability I mean here the inability of an agent to decline or to resist the exchange involved in the instance of commodification, for instance because of her social-economic circumstances. The case of selling one's organs becomes much more pernicious when someone is motivated to sell their kidney because they are poor and desperately need the money. There is something absolutely revolting about the man in *The Pianist* by Roman Polanski who offers a hungry Jewish family a small sum for their priceless piano.

The context of an unequal relationship increases the inappropriateness of commodification towards the point where even selling an object, like a piano, which under equal circumstances might not be inappropriate at all, can become an immoral act of commodity exchange.

First, what makes selling the kidney and the piano precisely so revolting depends on the fact that the people who sell these 'goods' are in a vulnerable position because they have a certain fundamental, basic human need that needs to be fulfilled. Moreover, when the opportunities to fulfill this need are scarce, this only increases vulnerability. Stress and duress are reasons for selling goods that one otherwise would not sell. However, even when desperation does not play an immediate role, agents can still be vulnerable. The weaker people's agency, the more problematic a transaction becomes. A vulnerable group, children, for instance, is less likely to (recognize and) resist an inappropriate form of commodification (Satz 2012). Taking advantage of asymmetries in agency and knowledge within a trade can amount to inappropriate commodification. This becomes especially salient in the case of data commodification and user scoring. Many users find it difficult to assess the future risks of a trade (Pham & Castro 2019).

Furthermore, the argument of personhood also plays a significant role. Both the kidney and the piano example, arguably in different degrees, are particularly tragic examples of inappropriate commodification because both the kidney and the piano are deeply and intimately connected with the

personhood and identity of the agents involved (Panitch 2016: 118). The kidney is literally part of the agent's body, and although someone can live without a kidney, there is something fundamentally problematic about a person who has to sell parts of their person, of their body in order to be able to buy medicine or food. Moreover, in the case of *The Pianist*, the piano is, obviously, not physically part of Władysław Szpilman, but the instrument can be argued to be an extension of himself and a very important part of his identity.

In addition, the uniqueness of these goods and the irreversibility of the sale matter too. The more irreversible the act of commodification, the more inappropriate it seems, in particular when this pertains to a good that is deeply and intimately connected to one's person. There is something unique and scarce about goods that are part of one's personhood. Once you've sold your kidney, you cannot sell another, and you can never have it back in case you regret your decision. It is irreplaceable. The day you have the means (again) to fulfil your basic human needs, you might look upon the day you sold your kidney, your piano, or the baby you carried for nine months with feelings of deep regret and loss, although you had no other choice at the time (Simmel 1978).

Then, what makes the sale of the piano and the kidney inappropriate is in fact a combination of factors: the fact that something so deeply tied to one's personhood is sold under circumstances of social-economic inequality to fulfill a basic human need (Satz 2012: 97). Moreover, I argue that when commodification takes place in or takes advantage of social inequalities and individual vulnerabilities and reproduces or increases inequalities as a result, this is particularly inappropriate (Satz 2012: 98).

3.4 Three Harms

These harms might, taken on their own, be insufficient to pinpoint inappropriate commodification. It is often a combination of criteria and a matter of degree that makes a certain case of commodification inappropriate. However, in sum, when we want to assess whether certain

practices are particularly inappropriate forms of commodification, we need to look out for instances of commodification that score high across several dimensions. We need to look out for the a) the (self)-reification of persons and b) the devaluation of human relationships and (fundamental) human needs according to the ideology of the free market and open competition to make a profit of a unique, scarce or irreplaceable human good, which is deeply and intimately connected to one's person. We should be *particularly* cautious when this exchange takes place in socially unjust contexts, when it c) it takes advantage of vulnerable groups (either due to socio-economic inequalities, unequal needs or agential weaknesses and asymmetries). Particularly inappropriate commodification may entail the reproduction or increase of social inequalities and individual vulnerabilities (for instance by exclusion and discrimination) resulting in a perpetuation of instrumental, oppressive relationships rather than meaningful relationships.

4. Love for Sale: a Normative Interpretation of Market Phenomena on Tinder

In this section I interpret two interrelated market phenomena that I discussed earlier: 'being on the dating market' and 'being on the data market'. In both cases, I address the question to what extent the self and social relationships are commodified on Tinder and to what extent this could be considered inappropriate. As discussed, the appropriateness of commodification will not depend on whether commodification takes place in a 'market sphere'. Moreover, there are no goods that are 'by nature' off limits. Even the obvious fact that we should not 'sell' human beings is a social agreement and construct that we have supported with arguments about human dignity. Commodification raises moral suspicion when it takes place in relationships or social contexts that we consider valuable for human flourishing, or when it involves the reification of persons, relationships and (scarce) goods that we associate with human personhood, and finally, when it takes advantage of the vulnerability of the people involved. As we will see, the phenomenon 'being on the dating market' and the phenomenon 'being

on the data market' lead to distinct harms. 'Being on the dating market' may lead to harms such as reification, alienation and the reproduction of individual vulnerabilities and social inequalities. 'Being on the data market' may lead to harms such as the devaluation of goods that prohibits valuable (self-)relationships, the transaction may take advantage of epistemic asymmetries and vulnerable groups and understanding oneself as a data object may lead to self-reification.

4.1 Swiping Faces: 'Being a Commodity on the Dating Market'

Illouz and Honneth argue that the commercial architecture of dating sites may lead to the reification of the self and others. It may lead to reification in the sense that users will see themselves as 'things' that should be curated, improved and 'sold' in an online competition with unknown others.⁸⁷ The other threat is that users reify other people, treating them as 'things' that one can choose and dismiss as if finding a match is similar to selecting a fish at the market. To what extent does self and other reification apply to technologies such as Tinder?

Let us start with the main feature of Tinder: swiping profile photos. The attractiveness of one's profile is very important because Tinder relies on first impressions based on photos. Tinder does not require you to fill out textboxes that indicate your preferences, opinions and temperament. Only after 'swiping right' or 'tapping the heart' based on a profile picture (and tagline), someone will be able to access the biography attached to the profile picture.

⁸⁷ Of course, this is not necessarily different with respect to 'offline' dating. However, the degree to which Tinder emphasizes appearance and attractiveness within its architecture affects and changes this type of social interaction in such a way that it becomes liable to harms that one would not, or to a much lesser degree, experience in the 'offline' realm. Moreover, Illouz argues that 'going out' in real life is different because the 'first impression' is a dynamic experience of the 'whole personality' (movement, sound, quirks) rather than a static one (in which you view textboxes and a photo). Perhaps trivial, but what attracts one in another person can hardly be determined by looks alone.

This observation corresponds with Illouz and Honneth: an unknown audience immediately ‘rates’ this public performance, based solely on the profile picture, by either swiping right or left. This can lead to self-reification in the sense that Honneth explained, where one starts to perceive oneself as a ‘thing’ that can be manipulated a will and whose preferences, beliefs and desires do not matter.

Moreover, this ‘thing’ starts to understand herself as someone who is either ‘successful’ or ‘unsuccessful’ in a market competition in which she, or her self-presentation, is the commodity. One might argue that the risk is that users might start to view themselves and each other as unknown ‘competitors’ for ‘commodities’ that one can ‘win’ on the dating market, striving for attention of their potential objects of affection and the best chance at finding a match. Tinder users can find a multitude of online courses on how to improve their profile picture so that they will generate more ‘hearts’, to improve their ELO scores in order to get access to more and ‘better’ matches. Moreover, they can buy subscriptions if they feel that they are receiving too few matches and require more visibility.

Furthermore, Tinder to some extent exploits this dynamic by implementing elements of gamification (Eler & Peysers 2015; Timmermans 2019). Tinder creates a game-like experience by using game design elements in a non-game context, dating, which makes this experience more addictive and, as some authors have argued, more enjoyable and meaningful (Seidel 2015). As *Medium* described:

“The controls of navigating Tinder — swiping right to like someone and swiping left to pass on their profile — are elements of traditional games. While the purpose is not to be played as a game, the user interface of Tinder creates a game-like experience. (...) Swipe left, swipe right, “It’s a Match!” After matching the app prompts users to choose between sending the match a message, or “keep playing.” Like a game. (...) the mechanics of Tinder, swiping left and right and getting an exciting notification when you match with another user, incorporates controls that many other games utilize.” (Seidel 2015)

Eler and Peyser argue that these elements of gamification cause users to view each other and themselves as ‘avatars’ (Eler & Peyser 2015). Winning involves mastering the technology’s affordances and ‘scoring’ by collecting matches (and dates).⁸⁸ While you can interpret this as ‘play’ that we also know from ‘offline’ dating, we should also be critical of these practices from the perspective of reification, alienation and dehumanization (Frank & Klincewicz 2018: 28).

Despite the fact that it might indeed be too strong to suggest that Tinder’s architecture is reifying our selves and intimate relationships, we should be careful. When users increasingly follow the imperatives of the market, the interaction seems to become more impersonal. Users might see each other increasingly as ‘objects’ that can be managed or manipulated rather than persons they are in meaningful interaction with, testing the waters for building an intimate relationship (Darwall 2006; Darwall 2017). Adding to the reification of persons, on Tinder, one’s potential matches are equated with commodities (beer, pizza, movie ads and flowers). Advertisements will appear on one’s screen among the profile pictures of one’s ‘potential matches’ that one also has to swipe either left or right.

Furthermore, algorithmic scoring systems such as ELO, rating users based on their online behaviour tracked by Tinder, entail a form of social categorisation that could be considered reifying with respect to social mobility. It is very difficult for users to move to a different ‘attractiveness category’ unless they pay while staying in the same category severely limits their options. The ‘objective data’ represents the users and determines their options.

Finally, ‘being confronted with one’s market value’ implies a form of reification that can have detrimental effects on self-presentation and the understanding of oneself. Objectifying practices largely follow stereotypical schemas, which may accentuate and reproduce individual vulnerabilities and social inequalities, reifying selves and harmful social categories. Lily Frank

⁸⁸ The design of dating-apps may lead to addictive behavior (McClintock 2019). For more on ‘addiction by design’ see: Schüll 2012.

and Michal Klincewicz have argued that relationship apps may reify harmful gender norms:

“[Relationship apps] are often a vehicle for systematic and institutionalized gender-based discrimination, disadvantage and violence that is insulated from the larger community where such behaviours can be sanctioned (...) Additionally, there is significant evidence that technologies, especially algorithms, can embody gender, racial and even metaethical biases of their designers. QRT are likely to be informed by stereotypical and gendered ‘scripts’ of romantic and sexual behaviour that are demonstrably detrimental to both partners’ sexual and personal fulfilment norms.” (Frank & Klincewicz 2018: 28)

The dating-app Bumble has explicitly aimed to combat some of these norms and harms by ‘breaking the script’ of romantic heterosexual encounters in their design. Only female users can make the first contact with their male matches.

The design of the technology infused with marketing logic, spurs new norms of social interaction, which may be harmful. Users of Grindr recently threatened the dating-app with a class action lawsuit for failing to address racism, misogyny, ageism and body-shaming on its app:

“Prejudicial language has flourished on Grindr since its earliest days, with explicit and derogatory declarations such as “no Asians,” “no blacks,” “no fatties,” “no femmes,” “no trannies” and “masc4masc” commonly appearing in user profiles. Of course, Grindr didn’t invent such discriminatory expressions, but the app did enable it by allowing users to write virtually whatever they wanted in their profiles. For nearly a decade, Grindr resisted doing anything about it (...) even as other gay dating apps such as Hornet made clear in their communities guidelines that such language would not be tolerated.” (Shadel 2018)

Tinder has not been involved in scandals like Grindr. However, structuring the technological environment along market lines can become a harmful practice. Market norms within the context of intimate relationships may change and distort these relationships because they stimulate a different type of interaction and behaviour. Romantic matches are scarce, but Tinder frames the search for them as a bargaining game: a matter of competition,

non-committal choice and the highest bid, which hooks users to the app and changes the practice and meaning of dating (Illouz 2007; Rozendaal 2019; Timmermans 2019). This is not necessarily problematic, unless it leads to or encourages the reification of persons and social categories, which potentially leads to the reproduction of individual vulnerabilities and social inequalities.

4.2 Tapping the Heart: ‘Being a Resource on the Data Market’

Tinder quantifies, objectifies and commodifies the self and relationships in ways that Illouz and Honneth could not foresee. Besides facilitating self and peer surveillance, Tinder engages in consumer surveillance.⁸⁹ It collects the preferences, opinions, geo-location and pictures that it found on the Facebook profile of a user (users can also link their Spotify and Instagram account to their profiles) and it quantifies their behaviour on the app. Information about your profile and Tinder behaviour is used for rating the value (attractiveness) of one’s profile, your ‘ELO scores’. Based on these scores, an algorithm determines the access to potential matches and the ‘value’ of these matches. Moreover, your data and profiles are commodified: it is used for native, targeted advertisement powered by Google Ads (previously Facebook’s Audience Network).⁹⁰ In this section I explore to what extent Tinder transforms the meaning of our relationships in an inappropriate way by commodifying personal data. I investigate to what extent this 1) takes advantage of vulnerabilities 2) devalues goods deeply tied to one’s personhood and 3) leads to reified selves.

Proponents of data collection would argue that this is a case of ‘appropriate’ commodification because the interests and needs of the users

⁸⁹ While a strict separation would be artificial, since users are subjected to both phenomena at the same time, one could state that ‘being on the dating market’ is a phenomenon that might be primarily shaped by technologies that involve self and peer-surveillance (see also Chapter Four), while the phenomenon of ‘being on the data market’ primarily involves consumer surveillance.

⁹⁰ <https://www.fastcompany.com/90258145/get-ready-for-google-powered-ads-in-tinder>;
<https://www.campaignlive.co.uk/article/tinder-adopts-programmatic-advertising/1423034>

overlap with or are encapsulated by the interests of the company in an equal fashion. The company does not exploit a human need: users find their match on Tinder, and Tinder profits from bringing people together.

Opponents argue that this exchange is not equal because the company reaps a disproportional benefit and because users often do not know they are part of a commercial transaction. This is where the cliché ‘if it’s free, you’re the product’ finds its origin, - although this has recently been challenged by Shoshana Zuboff, who claims users ‘ (...) are not the product; you are the ‘abandoned carcass. The product derives from the surplus that is ripped from your life’ (Zuboff 2019: 377).

Zuboff’s carcass raises questions about the meaning and value of personal data. Does Tinder commodify a human good intimately connected with one’s personhood, necessary for the meaningfulness of the relationship which it fosters? While some scholars argue that users ‘own’ their personal data and are free to trade or sell it (Lanier 2013), others argue that data is part of the development of one’s personhood and one’s social relations rather than a separate set of objects that can be reduced to a market value (Roessler 2015: 147). I agree that data is expressive of who we are, of our identity and personhood. As I argued in Chapter One, when we share data, we express ourselves with the intention to foster intimacy. This is also necessary (not sufficient) for developing these relationships which are necessary for an autonomous and flourishing life.

With regard to the idea that users ‘own’ their data, the pathway to appropriate commodification would be to negotiate a fair price for user data within a consensual exchange with the companies that want to use this resource. Yet, if you take the perspective that data is (deeply) connected to our personhood, this is insufficient. The type of data we have to worry about from the perspective of commodification is the type of data that is more, rather than less, expressive of our personalities and identities (for instance, one’s health, sexuality or political affiliations).⁹¹

⁹¹ Moreover, in previous chapters I have argued that companies can generate new information by combining ‘less expressive information’. Moreover, combining ‘less expressive information’ can reveal information about *future* behaviour of a person.

The challenge is to find out under which circumstances, if at all, data can retain its ‘human’ value: its value as a disclosure fostering an intimate relationship, when it is sold. Commodification is appropriate when the exchange is equal and proportionally beneficial to both parties, while the good in question is not devalued and it does not lead to the reification of persons and relationships.

Firstly, is the exchange on Tinder equal and proportionally beneficial for both parties? Of course, one could argue that the daily amount of matches and its enormous amount of users indicates that Tinder fulfills a certain need. Yet, there are two ways in which a person’s vulnerability might, directly, be taken advantage of with respect to data commodification on Tinder. The first problem is not specific to Tinder. There generally exists an agential and epistemic asymmetry between the users and the enterprises that produce the technology (Satz 2012). Users are often not aware that they are the ‘product’ or the ‘resource’ and that their behaviour is motivated by features of commercial gamification. They freely share their information in the spirit of ‘gift’ for fostering intimate relationships, but of course, it serves a different purpose. For instance, it took Tinder users with low ELO scores a very long time to discover that an algorithm that ranked their attributes in terms of attractiveness governed their visibility and their matches –and even then it was unclear how exactly the algorithm works. Moreover, they cannot foresee or predict what this means in terms of future consequences (Pham & Castro 2019).

Furthermore, users of dating-apps in general are particularly vulnerable in their need for intimacy and share a lot of sensitive, personal data on the apps for the purpose of finding a match. Some user groups, however, are particularly vulnerable. Grindr users are, as part of the LGBTQ+ community, in many ways more vulnerable in their search for intimate relationships and may also depend and rely on the technology to facilitate contact and dates. I will come back to this point in a moment.

Secondly, let us explore how data might be devalued. Sandel and Anderson might argue that in the case of Tinder, dating and romantic interaction, as social interactions, are devalued because they are structured

along marketing lines and reduced to a mere service to a customer. Users are paying for subscriptions to ‘access’ ‘better choices’ on the dating market. But, it is not necessarily problematic when people would pay for a service that would help them find their romantic match. It seems that there is something particularly problematic about commodifying personal disclosures in this context. Data could still retain its meaningfulness within a relationship while simultaneously serving as a commodity on the market, if it serves the purpose of intimacy and retains its value in that way. But does it? Let me give an example.

Recently, dating-app Grindr was involved in a privacy scandal. The company had shared sensitive data on its users’ HIV status, in combination with their relationship status, phone numbers, e-mailaddresses, medicine use, gps-location, ‘last time tested’ information and ‘users’ romantic aims and self-identified tribes’, with external software vendors and an ad targeting company (Shadel 2018; Singer 2018). One could argue that this is not a direct harm of commodification, but rather comes about because of surveillance. It would then be an indirect harm of data commodification. However, the commercialization of an intimate context enabled Grindr to collect and then sell the data on their user’s HIV status. Information, that these users offered for reasons related to fostering intimate relations, led to individual harm in the sense that their privacy was violated (not to mention their physical safety) and to a broader, social harm in the sense that this violation led to vulnerability with respect to, for instance, discrimination (Pham & Castro 2019; Satz 2012).

Tinder devalues personal disclosures by using them for the sake of making a profit. The social practice of dating might be devalued by consumer surveillance for the sake of native advertisement. Moreover, the ads are often related to products associated with ‘romantic interaction’. For instance, a frequent targeted advertisement you encounter on Tinder in the Netherlands is from a flower delivery service.

Finally, does data commodification lead to reification? The Grindr example I just mentioned leads us back to the harm of reification. Grindr apparently treated these data sets as ‘objects’, decontextualized and

separated from the personhood of their users, as commodities. However, upon the sale of these data it becomes clear that this is an inappropriate instance of commodification, because these goods are deeply connected to one's personhood and meaningful within a particular social context. Here, the close links between surveillance, commodification and reification become clear. Surveillance is, as in many cases of new technologies, driven by commercial incentives. Especially our most intimate relationships are interesting from a commercial perspective. Surveillance can lead to reification. Treating the collected data as an object, without care for and detached from the person and the social relationships it is embedded in is a problematic form of reification. People are 'fixed' through the sale of the sensitive information that is part of their identity. It makes them vulnerable to unwanted interference such as discrimination and thus the reification of harmful social categories. Moreover, Roessler argues that:

“(...) when subjects are pushed to see themselves primarily as data objects and no longer as subjects in relations, since personal data that are collected through social media are useful and valuable for any data broker and are thus commodified, the relationship between subject and her friends on social media might be transformed.”
(Roessler 2015)

This might be a risk for the social-technical architecture of dating apps such as Tinder and particularly relevant in the context of Quantified Self and Quantified Relationship Technologies that require tracking 'objective' data. These are cases in which persons and persons involved in a relationship are particularly at risk of perceiving each other and understanding themselves as data objects that can be scored and rated rather than subjects in a relation. This is also the reason why we value privacy: because it protects our disclosures, as part of our personhood and meant for developing our intimate relationships, against reification.

5. Transforming Relationships

Tinder promotes its service as a cultural movement and advertises with its billions of matches across the globe. While the service is ‘free’, users are involved in various practices of commodification that raise questions about their impact on the social sphere in which they take place. By taking advantage of the human desire to foster intimate relationships and by reducing people’s attributes and characteristics to a ‘score’, to a market value for the sake of making a profit, Tinder reifies persons and reproduces individual vulnerabilities and social inequalities.⁹²

What would amount to an appropriate form of commodification in the context of intimate relationships? An appropriate form of commodification would not engage in practices that foster reification and alienation and reproduce individual vulnerabilities and social inequalities. Relatedly, it should keep the meaning and value of the good that it commodifies intact and not take unfair advantage of vulnerabilities.

In the case of Tinder, the company should reflect critically on the extent to which the company structures online dating along the lines of gamification and market ideology, such as choice, competition and scoring, which is enabled by quantifying and objectifying features such as categorization and a strong focus on appearance. Secondly, the value of intimate interaction, including intimate disclosures for the sake of fostering intimate relationships, should be kept intact. At a minimum, this means that disclosures will not be sold to third parties or used to score users based on their attractiveness, adding to their individual vulnerabilities, in order to manipulate them to buy subscriptions. Relationships are intrinsically valuable, as are the goods associated with them. Structuring them along market lines instrumentalizes relationships in such a way that they may be pursued for other reasons than for their own sake (Danaher, Nyholm and Earp 2018: 8).

Moreover, Tinder could actively strive to embed features that would improve people’s capacities for strengthening intimate social relationships in

⁹² See also Richardson 2015 & 2016 for a similar debate in the context of sex robots.

some way. For instance, a recent study shows a correlation between the launch of Tinder and an increase in interracial marriages.⁹³ This is explained by Tinder's algorithm that allows you to 'swipe' strangers beyond your circle of friends, which means it might be more likely to meet a more diverse group. Tinder responded enthusiastically to the research and immediately linked up with a group of activists promoting interracial emojis.

While this is a great effect, it was not the original intention of Tinder to promote diversity and equality in that sense. Tinder had not deliberately baked the idea of enabling people in niche or marginalized groups to find each other into the design. It was an incidental effect. While it is positive that Tinder became aware of it, had they not, they might have run the risk of changing the architecture at some point, putting in features that might have crowded it out. A (pro)active stance and vision about how to contribute to strengthening social relationships (within their architecture) can prevent this. My hunch is that this would also require a human in the loop and relations of care within the system. Despite Illouz' and Honneth's critique, dating sites used to entail human intervention. Tinder relies mainly on automated recommender systems.

Now, let me end by addressing a potential counter argument. Why should we be worried about these instances of commodification when these relationships are far from 'real', intimate relationships? Few of our 'Facebook friends' are actual, close friendships. It has also been established that there are thirteen different reasons for making a Tinder profile. 'Looking for a relationship' ranks fourth (Timmermans 2019). Tinder has the reputation of being a superficial hook-up app, although Tinder reports that 80% of its users are looking for a meaningful relationship.⁹⁴ So is Facebook then capitalizing on friendships? Is Tinder capitalizing on romantic relationships?

These are valid questions. Yet, portions of the interactions that are mediated through these technologies are 'real'. Friends and family interact through Facebook, people find their match and foster the start of long-term relationships through Tinder.

⁹³ <https://emoji.tinder.com/>

⁹⁴ <http://money.com/money/4713971/tinder-millennials-dating-apps/>

Moreover, the reason that many of the relationships that are mediated through these technologies are considered to be superficial is arguably a result of the way marketing and commercial surveillance of social relationships have shaped these very social relationships, causing users to reflect negatively on the meaningfulness of social interaction on these platforms. For instance, Tinder's elements of gamification shapes users' understanding of dating as a game (Roozendaal 2019). Importantly, companies do not merely tap into our self-understanding and social interactions, but they shape them simultaneously. The way we understand ourselves and our social relationships is transformed along with the marketing logic that underlies these technologies that increasingly mediate them (Verbeek 2008).

To conclude this chapter, dating-apps such as Tinder mediate our self and social relationships by structuring our self-presentation and social interaction according to market norms. Moreover, they commodify our intimate disclosures. This changes how we understand our selves and our social relationships. While this is not necessarily problematic, we should be aware of the changes and exercise caution with respect to their potential harms. Inappropriately commodified relationships may inhibit, rather than support, an autonomous and flourishing life. In this final chapter I explored two instances of commodification on Tinder that we should be critical of. First, designers of relationship management technologies should exert caution with regard to quantifying features that may 'turn' persons into commodities on the dating market. Swiping faces, instantly 'rating' the persons by flicking through their profiles is a type of interaction that is changing, and at worst distorting, the way we present ourselves and the way we perceive others. Secondly, allowing Tinder to tap our hearts through data commodification changes the meaningfulness of our disclosures. Both practices are enabled and spurred by technological design that involves quantification and self-surveillance, peer-surveillance, and surveillance. The potential harms I indicated include reification, the reproduction of individual vulnerabilities and social inequalities, devaluation and taking advantage of vulnerabilities. If self-presentation and social interaction, when mediated

through new technologies, are harmed in these ways, they may lose their value for creating intimacy and fostering meaningful (intimate) relationships. At worst, they might become reified and reproduce individual vulnerabilities and social inequalities. This undermines the meaningful self- and social relationships that are necessary for developing an autonomous and flourishing life.



Automat

The painting '*Automat*' (1927) by Edward Hopper shows a woman sitting alone at a table in a café, staring into her coffee cup. Her eyes are down cast; she still has her coat on. It is dark outside and the large window behind her is a pane of dark glass in which the lights of the establishment are infinitely reflected. While she is wearing a coat, her legs are bare and exposed underneath the table she is sitting at. All dressed up, she seems to be on her way to some social event, stopping for a quick coffee, summoning courage. To the viewer, she may seem sad and lonely.

An 'automat' is a fast food restaurant where food and drinks are sold through vending machines. The term refers to a machine that acts mechanically, automatically, or on its own, without interference of a human. '*Automat*' is one of many paintings by Hopper that portray alienating aspects of fast-developing cities, or at least have been interpreted to that extent.

My dissertation is a critical inquiry in a long-standing tradition of thinking about what technology means for society by investigating how it changes us and how it changes the way we interact with each other. Does it alienate us from ourselves, from others? Does it strengthen our social relationships? Does it undermine our ability to live autonomous and flourishing lives?

I researched the most widely used, intimate technologies that promise to empower us and improve our lives by strengthening our intimate self-relations such as self-knowledge and self-management and our intimate social relations such as the management of our friendships and romantic relationships. The philosophical analyses of these technologies are contributions to a better understanding of their role within these intimate relationships and to explore the tools for evaluation of similar, future technologies.

So what have I accomplished? To be precise, I answered the question 'What ethical concerns are raised by the surveillance, quantification and behavioural change dimensions of commercial self-tracking

technologies, with regard to an agent's ability to lead an autonomous life?' In order to answer it, I examined several commercial self-tracking technologies that promise users to improve the management of their 'selves' and their social relationships from four different perspectives: informational privacy, decisional privacy, surveillance and commodification.

These perspectives were related to ethical worries regarding autonomy: they concern the problems of violations of privacy, manipulation, consumer surveillance and reification. I argued that violations of privacy could inhibit one's self-presentation and the way we make decisions about our lives in different social contexts. I showed how this could make us vulnerable to manipulation by third parties. Moreover, I argued that the commercial nature of technologies, spurring consumer surveillance, could lead to new (techno) norms of self-presentation and interaction, resulting in an unsupportive social technical environment that stimulates certain (stereotypical) behaviour for commercial ends. Finally, I explored how features of quantification and surveillance by commercial technologies might lead to inappropriate commodification of persons and their relationships.

So what do the aforementioned perspectives tell us about our ability to live an autonomous and flourishing life? While it would indeed be wrong to neglect their value we have seen that self-tracking technologies and social network services engage in and encourage extensive (self)surveillance, that they steer the behaviour and decisions of users and that they commodify the resulting quantified selves and quantified relationships. I have argued that these aspects undermine rather than support user's capacities for self-chosen and self-directed self-disclosures and presentations, which changes the way we understand our selves and build relationships with others. This may actually inhibit living an autonomous and flourishing life.

Now, instead of ending my dissertation with a summary of the chapters, I will take a step back and paint a systematic picture to get a grip on the problems that we are facing as a society in a quantified age.⁹⁵ How do our self and social relations become quantified and what do these quantified relations mean for our society? I will do so by revisiting the four different

⁹⁵ An overview of the chapters can be found under 'Summary'.

perspectives that I examined throughout this dissertation guided by the question how these perspectives might be connected.

Changing Norms of Privacy, Commodified Relationships

The various perspectives of this dissertation are linked by the idea that, as a society, we should recognize the changing norms of privacy under the influence of the architecture of commercial self-tracking technologies. Furthermore, we should recognize that this may transform how we understand ourselves and our social relationships, namely, as structured (and motivated) by market interests.

Let me break down these ideas by combining some of the argumentative steps that the perspectives of this dissertation have in common. First, I argued throughout this dissertation that commercial self-tracking technologies change informational privacy and decisional privacy norms. I explained this in the following way. The architecture of self-tracking technologies enables different forms of surveillance and personalized feedback aimed at behaviour change. As a result, people's options for deciding what (information or decisions) they want to share and with whom change under the influence of the technological architecture that promotes or allows certain choices. This means that their capacity to present themselves autonomously in different contexts changes and, in some cases, is severely limited.

I then proceeded with the argument that if our ability to present ourselves autonomously in different social contexts changes, this affects our ability to differentiate between different relationships. For instance, the technological architecture of FitBit has changed our informational privacy norms. Managing oneself, one's health and fitness, using a FitBit, involves commercial enterprises that track one's body and behaviour. This makes a commercial enterprise part of people's desire and search for self-knowledge or self-control. While enterprises have always been interested in such involvement (the health domain is a lucrative business), they used to only have limited access to this context. Insights in health and fitness data were

part of the confidential physician-patient relationship. However, the technologies of the information age have enabled them to be part of this relationship on a continuous, real-time basis, responding to people's interest in a 'quantified self' and personalized feedback to improve their health and fitness.

These changing norms of privacy raise concerns from the perspective of autonomy. The architectures of self-tracking technologies are shaped to surveil and quantify one's behaviour based on the promise that this will lead to an improved management of one's intimate relationships. Yet, while one's self-control may in fact be increased, other dimensions of autonomy that are protected by informational privacy and decisional privacy may be undermined at the same time, for instance the capacity to present oneself autonomously and develop intimate relationships.

As we learned from exploring the relationship between privacy and autonomy, privacy is an important condition for developing different relationships with oneself and others that we need in order to develop an autonomous and flourishing life. However, under the influence of surveillance and quantification, selves become increasingly 'transparent'. First, this makes it increasingly difficult to maintain and develop different relationships and different degrees of intimacy. Secondly, this makes people vulnerable to unwanted interference by contexts and parties that they did not reasonably expect or grant to interfere with their behaviour and their decisions within these contexts. At worst, this unwanted interference entails the manipulation (or coercion) of our choices or behaviour.

So how do our relationships change exactly? What does 'quantified self' or 'quantified relationship' mean? An important part of the answer lies within the commercial dimension of self-tracking. Through the technologies that mediate our most intimate relationships, we allow third party interests to infiltrate and shape these intimate relationships. The worry is that as a result these relationships may lose part of their value for developing an autonomous and flourishing life.⁹⁶ Let me briefly unpack the latter.

⁹⁶ While I have investigated commercial technologies, my argument is conceptual to the extent that it could be extended to other parties, such as governments. For instance, a

Changing norms of privacy might become problematic when they are changed by and serve the interests of third parties, such as commercial enterprises. It is an ethical concern whether users are steered to present and disclose themselves according to market interests that are embedded within the socio-technical structures of the technologies that they use to manage their intimate relationships. It should be publicly debated whether we should want to allow commercial enterprises access to our most intimate relationships. When these relationships become governed by market interests that commodify our disclosures and presentations, this may transform how we understand ourselves and relationships. In the worst-case scenario, we start to understand ourselves and others in a objectifying manner, which may undermine their value for an autonomous and flourishing life.

For instance, an increase in surveillance, a lack of privacy and a focus on quantification for commercial purposes may lead to understanding oneself and others from an objectifying stance in several ways. First, aside from compromising one's capacity to foster different degrees of intimacy, changing or even disappearing privacy boundaries invoke a feeling of 'being watched' by an (un)known audience. This could lead to looking at oneself from a third person perspective, causing one to adapt their presentation and behaviour.

government that collects data on its citizens in order to meddle with their decisions or to steer their behaviour for purposes that are in the interest of the government rather than the interest of citizens is subjected to the same normative critique regarding the development of autonomy that commercial enterprises are. Yet, there are some important remarks to be made about the status of governments versus enterprises in the world of technology. In liberal, constitutional democracies, citizens, in principle, have access to procedures to hold states accountable, although one may argue that this is nevertheless a challenging and time consuming process. However, powerful corporations are much more difficult to control and hold accountable. Secondly, with regard to the government we have expectations about solidarity, serving the public interest that we do not have towards large corporations with aggressive business models. Finally, most governments rely on large corporations to provide the technology for their institutions. Of course, this does not mean that governments will not commit similar harms, but I think that we should keep a very close eye on the commercial enterprises that design virtually every intimate domain of our lives without our feedback or public debate.

Secondly, the disappearance of privacy boundaries makes it possible to become motivated by interests or factors of third parties, such as commercial enterprises, beyond the interests or factors that should govern a relationship. It makes an agent vulnerable to unwanted interference, such as manipulation, aimed at changing an agent's behaviour for the sake of commercial interests rather than the agent's interests. When relationships are structured according to a marketing logic, this may result in a transformed understanding of the relationships that these enterprises have become a part of. At worst it may lead to an alienated and reified understanding of self and social relations.

How *we* choose to behave and what *we* choose to share is important for shaping our self and social relationships. Moreover, these decisions are expressive of our autonomy. When these relations become increasingly structured and steered based on interests other than the ones fostering these relationships for their own sake, this may undermine their value for an autonomous and flourishing life.

As I proposed, the 'Transparent Self' is the person whose choices, behaviour and social interactions are tracked, quantified, steered and commodified in the process of empowering one's self-management and relationship management. Transparent Selves should therefore be understood in a different light from selves that are able to present themselves autonomously. Transparent Selves run the risk of being treated and increasingly treat each other as 'things' that can be appraised, sold and manipulated rather than as agents. Due to the practice that results from the surveilling and quantifying architecture of the technology, they may understand themselves and their social relations as reified, or fixed, social categories and stereotypes that are encouraged and reproduced through this architecture.

They may refer to themselves as 'brands', 'products', 'data objects', 'competitors', 'consumers' or 'resources', rather than friends, lovers or patients. Let me remind you of the Natural Cycles example in which the user expressed that she felt treated like a 'consumer' rather than a patient. Or, remember the comment by teenager Julia from Chapter Four, who refers to

herself as a ‘brand’ in the context of Instagram. Or think about the gamification of relationships with oneself and others as fostered by Quantified Relationship Technologies that measure and award badges for romantic gestures. Who is the better lover – who has the most matches and badges? Who is the better friend – who has the most hearts and likes? Who is the better self?

Therefore, it might not be too strong to conclude this research by stating that these technologies increasingly lead to reified forms of self-understanding and the reification of social relationships. In any case, we should be critical with regard to the commercial agenda behind technonorms that shape and have become part of our most intimate relationships. Living an autonomous and flourishing life requires that we have the capacities to develop different (intimate), meaningful social relationships and to make decisions that are motivated by our own values, beliefs and reasons rather than the market. Autonomous self-presentation is a key capacity that enables us to dynamically engage and move between various social roles and to understand ourselves as autonomous individuals. It is increasingly under duress in the age of the quantified self.

A Quantified Society

So what do quantified selves and quantified relationships mean for society? While I have not explicitly addressed this question in my dissertation, I think there are various ways to answer this question that all share a common concern that I would like to explore in this final section. The common concern is that society as a whole might be changed due to the incorporation of a logic that is aimed at success, efficiency and making a profit, enabled by technology. Features of quantification, surveillance, behavioural steering, fuelled by commercial incentives seem to indicate and serve such logic rather than strengthening human capacities for developing meaningful intimate relations. While systems that incorporate these features may also strengthen these relations in some ways, the concern that remains is that it is beyond our control and that the whole of the society may be structured according to

a logic that we might not want but cannot easily resist, while it does affect how we relate to one another, changing our society.

In this dissertation I have often referred to such logic as a marketing or market logic.⁹⁷ I have also argued that there is nothing necessarily wrong with commodification, the market or a capitalist economy for that matter. For instance, buying bread at the bakery or paying health care professionals to take care of one's grandmother are cases of appropriate commodification. Nevertheless, we should always be critical to ensure that it does not encroach 'inappropriately' on relationships by devaluing or reifying them. This might be especially important when we want to criticize a capitalist economy that feeds on extensive surveillance and behaviour modification in virtually all aspects of human lives: surveillance capitalism.

Recently, Shoshana Zuboff has criticized the increasing set of practices of data collection, targeting and steering of consumer behaviour. She coined the term 'surveillance capitalism' (Zuboff 2015: 75). Zuboff defines surveillance capitalism as 'a new economic order that claims human experience as free raw material for hidden commercial practices of extraction, prediction and sales' and 'parasitic economic logic' focused on discovering potential for and producing 'new markets of behavioural prediction and modification' (Zuboff 2019: 1; Zuboff 2015: 75).

Zuboff argues that surveillance capitalism is the foundation of a surveillance economy that threatens human nature and the origin of a new power that dominates society for the sake of risk reduction that threatens democracy and human rights in which persons are stripped of their autonomy (Zuboff 2019: 11-12). Zuboff refers to this system as an '(...) ubiquitous networked institutional regime that records, modifies, and commodifies everyday experience from toasters to bodies, communication to thought, all with a view to establishing new pathways to monetization and profit. Big Other is the sovereign power of a near future that annihilates the freedom achieved by the rule of law' (Zuboff 2015: 83). Zuboff's warnings

⁹⁷ As I stated in the previous footnote, this 'logic' does not necessarily have to be pushed by commercial parties. Logics of efficiency, profit and success can also be incorporated and promoted by governments. I will get to that point in a moment.

seem to resonate with current affairs as the Big Five, Amazon, Facebook, Google, Apple and Microsoft, increasingly move into virtually every domain of our lives, such as mobility, smart cities, communication and most notably, health, collecting and accessing data on an unprecedented scale. Domains that were previously regulated by non-commercial actors or a collection of small-scale commercial enterprises.

Surveillance capitalism may affect society as a whole, developing it into a surveillance society. While commercial technology enterprises play an important role in driving consumer surveillance and data commodification, we should not neglect the role of governments in the development of a surveillance society. Governments rely heavily on commercial enterprises to provide the technology for their institutions. Under the flag of efficiency, combatting fraud and saving public funds, surveillance capitalism is normalized and institutionalized in societal domains where it previously was not.⁹⁸ For instance, the normalization of technologically enabled quantification, surveillance and behavioural steering may lead to the normalization of a logic that dictates that we can and should ‘predict’ people’s behaviour and ‘score’ them for the sake of efficiency or profit (Harcourt 2017; Pasquale 2015).

Societal institutions such as health care, credit, education system or justice system but also social practices such as consulting a physician or talking to one’s friends may be subjected to thinking along lines of cost reduction, risk reduction, profit and efficiency. Of course, as I said earlier, logics of profit, success and efficiency are not problematic per se; they can also lead to great social improvements. Nevertheless, it should always be a matter of debate whether these systems actually lead an improvement of how we understand our relationships, our society and ourselves. The reason is

⁹⁸ The increasingly institutionalized and normalized practice of credit scoring is a powerful and worrying example. Moreover, civil society in the Netherlands is litigating against fraud detection by the state targeted at poor neighbourhoods by matching data. And, recently, Philip Alston, UN rapporteur on poverty in the UK, presented a worrying case in which the UK government used data against welfare recipients. (Alston & van Veen 2019). Moreover, the Chinese social credit scoring system (Backer 2018; Beer 2017; Creemers 2017).

that the normalization of these practices and underlying logic may change our relationships, status and rights as patients, welfare recipients, students or citizens.⁹⁹ Then, should we as a society accept that Facebook sells profiles indicating our credit worthiness? Should we welcome a commercial anti-conception app? Should we allow employers to track our behaviour in the workplace?

Such a societal debate might be particularly important from the perspective of marginalized or vulnerable groups. Features of quantification, surveillance and behavioural steering imply different social realities for different people. For instance, ‘nothing to hide’ has traditionally been an argument of the powerful and privileged who do not have to worry about their HIV data ending up in the hands of the government. However, marginalized groups suffer most from the downsides of the information economy and automated predictions (Andrejevic 2013; Bridges 2017; Eubanks 2018). The poor, for instance, are notoriously subjected to more invasive surveillance and have few means to resist. For instance, wearing a FitBit bracelet may become part of a government initiative to combat obesity among children in ‘poor’ neighborhoods. Under the banner of empowerment these technologies may impose new moral obligations and responsibilities that are set not by the individual, but by public health authorities or commercial app developers (Sharon 2018: 20-21).

Apart from social-political concerns, a quantified society also raises concerns with regard to social interaction that changes as a result of features of quantification, surveillance, behavioural steering and commodification. Recently, Dutch newspaper *De Volkskrant* published an article about a decrease in social skills among teenagers who grew up with social network services.¹⁰⁰ The worry is that avoiding conversation has never been easier. When it is our birthday, people get a notification and can push on a ‘like’ button or send a comment congratulating us. Taxi-app Uber introduced a

⁹⁹ See also: the SCALES project and Evers (forthcoming)

¹⁰⁰ Beukers, G. 2019. Smartphones, zelfscankassa's en die eeuwige oortjes, ze verdringen het praatje op straat. *De Volkskrant*, June 19 2019. Accessed at: <https://www.volkskrant.nl/de-gids/smartphones-zelfscankassa-s-en-die-eeuwige-oortjes-ze-verdringen-het-praatje-op-straat~b91826b0/>

‘mute’ button that enables users of the UberBlack service (a luxurious membership upgrade) to choose ‘not to be spoken to’ by the driver without telling the driver (which is considered rude or awkward). In *Reclaiming Conversation* (2015), anthropologist Sherry Turkle states that we increasingly treat technologies like humans and humans like cold technologies. We ‘mute’ our taxi-drivers but ask Siri, Apple’s virtual assistant, to recommend a restaurant. When we can watch each other from a distance and let each other know what we think by rating, posting or liking, we may lose important abilities for fostering meaningful social relationships and opportunities for learning about our selves. At worst, they may alienate us from each other and from our selves. An earlier work by Sherry Turkle is called *Alone Together* (2013) in which she emphasizes that we might have more social contact than ever but that this type of contact leads to a new solitude because we never have each other’s full attention.

‘Likes, ratings and shares’ and ‘calories, steps or number of romantic gestures’ should not be regarded as proxies for meaningful relationships with others or meaningful self-understanding about one’s health, fitness or sex life (Sharon 2018: 20). Capacities for creating intimacy need to be practiced and trained, which is hard work and sometimes awkward. It seems that reductionist features of quantification and surveillance allow us to circumvent it. And if Turkle is right, when we do become alienated from our capacities to foster these relationships and when our self-understanding and our social relationships do change as a result, this may impact our capacities to develop an autonomous and flourishing life.

Automat

By interrelating the concepts of informational and decisional privacy, surveillance, commodification, I have proposed various perspectives to carry out a normative critique of commercial self-tracking technologies. Moreover, I have shown how these concepts relate to living an autonomous and flourishing life. I have cautiously suggested that we should be careful to grant commercial self-tracking technologies increased access to our most intimate

relations, because the introduction of surveillance, quantification and personalized feedback may change how we understand these relationships in three ways. First, it changes our ability to separate different relations, compromising our capacity to foster different degrees of intimacy with others. Secondly, this ‘transparency’ opens the door to (unwanted) interference by third parties that previously did not have access to these contexts and aim to change your behaviour within these contexts. Finally, this may result in a changed understanding of the relationships that these third parties have become a part of. For instance, under the influence of commercial enterprises, these relations may be structured according to a marketing logic, which, at worst may lead to the alienation and reification of self and social relations. On a more general level, we may notice that people are increasingly ‘scored’ and that their relationships, status or rights may change as a result. Furthermore, we may notice that the way we interact changes under the influence of surveillance, quantification and personalized feedback.

I want to restate that change is not necessarily bad. What counts as intimate changes over time. Also, commercial technologies are not necessarily problematic either of course. Moreover, as I argued, commercial enterprises are not the only parties to worry about. It would be mistaken to treat ‘the market’ as a separate sphere or to disqualify and bar market logics from participation within the plurality of complex social relations that make up our society. The market can also drive important social change. Therefore, we should not compartmentalize and ban the market from the realm of self-tracking. It just should not become the dominant logic in all our social relations.

We should assess the value of new technologies on a case-by-case basis by exploring its context and corresponding norms and expectations. We will see that often these technologies are a mix of autonomy supporting and autonomy undermining features. Obviously, a case-by-case approach should not entail that we should close our eyes to the bigger picture: to the power that has been accumulated by technology monopolists and the

technological trends they promote that affect society on an unprecedented scale.

So, allow me to end this dissertation by revisiting Hopper's '*Automat*' once more in order to make a suggestion about what could be so alienating about quantified selves and quantified relationships. Why, at first sight, would '*Automat*' in 1927 have invoked a sense of alienation? One of the reasons is that the woman in the painting is sitting alone, in an empty and automatically run restaurant without any human interaction. Yet, on second thought, '*Automat*' is not completely devoid of human intimacy and interaction. The painting allows us a voyeuristic peek under the table at the bare legs of the lonesome woman staring into her cup of coffee. As I said before, what is considered intimate changes. In 1927 bare legs were considered intimate and perhaps even mildly erotic. The reveal of bare legs creates a sense of intimacy with the viewer - I imagine a quickening of the pulse when people passed the painting back in 1927.

To transport the painting to 2019, the only thing we have to do is to place a smartphone next to the cup of coffee. '*Automat*' would then rather refer to the device than the setting. So what would people think today? To many, this picture would not seem alienating at all. Contrary to the woman from 1927, her (great) granddaughter in 2019 has *plenty* of people to interact with. She is messaging multiple people at a time, comparing fitness scores with her peers, rating her Uber-drivers, responding to personalized recommendations, all while drinking a single latte macchiato. We have never been more 'connected' to our bodies and others. We have never been more up to date about our behaviour and have never communicated more.

Nevertheless, along with the normalisation of sharing and being watched, the intimacy has *also* been lost. After all, bare legs pale in comparison to all the other things she has already revealed and continues to reveal about herself through the technology. Yet, these disclosures are the cold intimacies of transparent selves that serve many goals and interests, but fail to quicken our pulses. On second thought, this might invoke a new sense of alienation with regard to our relationships. On second thought.

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Summary

The Transparent Self

A Normative Investigation of Changing Selves and Relationships in the Age of the Quantified Self

In this book I discuss in depth four ethical concerns that are raised in relation to the emerging and increasingly normalized practice of self-tracking. The aim of this dissertation is to evaluate the diverse phenomena involved in the practice of self-tracking. For that purpose, I investigate different ‘popular’ technologies that monitor user’s intimate domains (their bodies, behaviour and social interactions) and that are, for commercial reasons, involved in practices of surveillance, quantification and behavioural change.

While each chapter discusses a different technology, all chapters contribute to the conceptual toolbox for an ethical evaluation of technologies that promise to improve our self-management and the management of our relationships. I explore and apply four different perspectives - informational privacy, decisional privacy, surveillance and commodification - to interpret and evaluate practices of commercial self-tracking that involve quantification, surveillance and behavioural steering. Moreover, I explore to what extent these practices contribute or undermine an agent’s capacity to live an autonomous and flourishing life.

Each chapter has the following tension as its starting point: on the one hand, disclosing information may empower users. On the other hand, we need privacy in order to be able to lead autonomous and flourishing lives. Therefore, in Chapter One I explain my theoretical understanding of these concepts from a relational viewpoint by introducing the notions of relational privacy and relational autonomy. I argue that relationships play an important role in developing our autonomy and personhood. Privacy is the

social condition for strengthening people's capacities to develop intimacy and meaningful social relationships necessary for an autonomous and flourishing life, such as self-chosen self-disclosure and self-presentation.

In Chapter Two and Three I evaluate self-tracking technologies that promise improved self-management (Quantified Self Technologies). In Chapter Two I argue that extended transparency conflicts with the informational privacy norms necessary for living an autonomous life. I argue that self-tracking technologies could be valuable tools for strengthening one's capacity for self-control. Yet, *the way many of these commercial self-tracking devices and apps are currently designed and used, combining self-surveillance, co-veillance and surveillance, cancels out* these promising results. Success stories about empowerment, self-control and self-improvement camouflage the reality of decontextualization, where we expose too much to an undefined (future) audience, which limits our capacity to run our lives for ourselves.

In Chapter Three I argue that a lack of informational privacy enables unwanted interference with one's decision-making processes. I provided an evaluation of the use of hypernudging, Big Data driven algorithmic decision-guiding processes, in commercial self-tracking technologies. Moreover, I explore decisional privacy as a helpful conceptual tool for evaluating hypernudging in self-tracking. Decisional privacy protects us against interference by social contexts or parties that we did not reasonably expect (or grant) to interfere with our decisions. I argue that hypernudges collect and interpret data about our decisions on an unprecedented scale, with unprecedented scope, across multiple contexts and from multiple sources. This real-time surveillance allows for real-time (re)configuration and further personalization of choice architectures. This makes the technology highly appealing: one could argue that personalized feedback is empowering. Nevertheless, hypernudges might compromise autonomy on a different level by violating informational and decisional privacy, making users vulnerable to hidden, unwanted, profit-driven interference in their decision-making processes.

In Chapter Four and Five I evaluate SNS Instagram and dating-app Tinder, as avenues of mass quantification and surveillance, that promise to

manage one's relationships (Quantified Relationship Technologies). In Chapter Four I investigate girls' ambivalent experiences with regard to visibility on social network services as both empowering and disempowering from the perspective of surveillance and manipulation. While social network services are also celebrated for their empowering and emancipatory potential for identity construction and building communities, its commercial and manipulative character, simultaneously undermines these capacities. Commercial social network services, such as Instagram, foster an unsupportive environment because they privilege and foster stereotypical gender roles, norms and behaviour instead of more or less autonomous self-presentation. This may conflict with the practice of building supportive communities, to freely experiment with and construct their identities. This may be particularly harmful in the case of teenagers that are in the midst of developing the relations and self-understanding necessary for living an autonomous life. Girls might understand themselves and their social relationships more as manipulable objects, rather than developing, autonomous subjects.

In Chapter Five, I explore in greater depth how self-understanding and relationships may be changed due to a lack of privacy, from the perspective of commodification. As I argued, surveillance opens the door to unwanted interference with one's behaviour by commercial parties, limiting our options for and influencing our self-presentations. Dating-app Tinder mediates our self and social relationships by structuring our self-presentation and social interaction according to market norms. Moreover, Tinder commodifies our intimate disclosures, thus altering the meaning of our self-presentations. This changes how we understand our selves and our social relationships. I argue that should be critical of these changes. Inappropriately commodified relationships may inhibit rather than support an autonomous and flourishing life. The potential harms I indicate include (self)reification, devaluation and taking advantage of vulnerabilities. If self-presentation and, consequently, social interaction are harmed in these ways when they are mediated through these technologies, they may lose their value for creating intimacy and fostering meaningful (intimate) relationships.

At worst, they might become reified and reproduce individual vulnerabilities and social inequalities.

In the conclusion I take a step back and paint a systematic picture to get a grip on the problems that we are facing as a society in a quantified age. I reflect on how our self and social relations become quantified and what these quantified relations mean for our society. I revisit the four different perspectives - informational privacy, decisional privacy, surveillance and commodification- that I explored as ethical tools for evaluation of commercial self-tracking technologies guided by the question how they might be connected. I conclude this normative investigation by stating that if the commercial character of these technologies becomes too dominant, these technologies contribute to reified forms of self-understanding and the reification of social relationships. While they may appear to be tools for empowerment, they may actually undermine our autonomy. Therefore, we should be critical with regard to the commercial agenda behind technonorms that shape and have become part of our most intimate relationships. Living an autonomous and flourishing life requires that we have the capacities to develop different (intimate), meaningful social relationships and to make decisions that are motivated by our own values, beliefs and reasons. Autonomous self-presentation is a key capacity that enables us to dynamically engage and move between various social roles and to understand and express ourselves as autonomous individuals. It is increasingly under duress in the age of the quantified self.

Samenvatting

Doorzichtig

Een ethische analyse van apps en wearables die ons kwantificeren en ons zelfbegrip en onze sociale relaties veranderen

In dit boek bespreek ik vier ethische zorgen die naar voren komen in verband de opkomende en steeds meer genormaliseerde praktijk van ‘self-tracking’. Het doel van dit proefschrift is om verschillende fenomenen te evalueren die zich voordoen binnen deze praktijk. Dat doe ik in dit proefschrift door verschillende ‘populaire’ technologieën (specifieke apps en wearables) te onderzoeken die de intieme domeinen van gebruikers (hun lichaam, gedrag en sociale interacties) monitoren en die een commercieel belang hebben bij surveillance, kwantificering en gedragssturing.

Hoewel elk hoofdstuk een andere technologie bespreekt, dragen alle hoofdstukken bij aan de conceptuele gereedschapskist voor een ethische evaluatie van apps en wearables die beloven om ons te helpen om meer grip op onszelf en onze sociale relaties te krijgen teneinde deze te verbeteren.

Ik verken vier verschillende perspectieven – informationele privacy, beslissingsprivacy, surveillance en commodificatie – om praktijken van commerciële self-trackingtechnologieën te interpreteren en te evalueren. Ik onderzoek in hoeverre dit soort praktijken bijdragen aan het vermogen van een persoon om een autonoom leven te leiden of dat juist ondermijnen.

Elk hoofdstuk heeft de volgende spanning als uitgangspunt: enerzijds kan het vrijgeven van informatie gebruikers versterken in hun autonomie. Aan de andere kant hebben we privacy nodig om autonome levens te kunnen leiden. In hoofdstuk één leg ik uit dat ik uitga van een relationeel begrip van autonomie en privacy. Ik beargumenteer dat privacy de sociale voorwaarde is voor het versterken van de capaciteiten van mensen om

betekenisvolle sociale relaties te ontwikkelen. Ik beargumenteer verder dat we deze relaties nodig hebben om een autonoom leven te kunnen leiden.

In hoofdstuk twee en drie evalueer ik self-trackingtechnologieën die ons beloven om ons te helpen onszelf te verbeteren en om onze zelfcontrole te vergroten. In hoofdstuk twee stel ik dat de transparantie die deze technologieën beweren daarvoor nodig te hebben in strijd is met de informatiele privacy normen we nodig hebben om een autonoom leven te leiden. Ik argumenteer dat self-tracking technologieën waardevolle hulpmiddelen kunnen zijn om iemands vermogen tot zelfcontrole te versterken, maar dat de manier waarop veel van deze commerciële self-tracking technologieën momenteel zijn ontworpen en worden gebruikt, deze belofte ondermijnen. Succesverhalen over empowerment, zelfcontrole en zelfverbetering staan haaks op de realiteit van decontextualisering, gevoed door commerciële belangen, waarbij we teveel blootstellen aan een ongedefinieerd (toekomstig) publiek. Deze transparantie beperkt ons vermogen om een autonoom leven te leiden.

In hoofdstuk drie beargumenteer ik dat een gebrek aan informatiele privacy mensen kwetsbaar maakt voor ongewenste inmenging met hun besluitvormingsproces. Ik evalueer het gebruik van ‘hypernudges’, van Big Data-gestuurde algoritmische beslissingsprocessen, door commerciële self-tracking technologieën. Daarnaast onderzoek ik of het concept ‘beslissingsprivacy’ een nuttig hulpmiddel zou kunnen zijn voor het evalueren van het gebruik van hypernudges in self-tracking. Beslissingsprivacy beschermt ons namelijk tegen inmenging door sociale contexten of partijen waarvan we redelijkerwijs niet verwachten of normaalgesproken niet zouden toestaan dat ze zich zouden bemoeien met onze beslissingen. Ik stel dat hypernudges op een ongekende schaal gegevens over onze beslissingen verzamelen in verscheidene contexten. Daarmee kunnen hypernudges real-time onze online keuze-architecturen aanpassen. Enerzijds is dit aantrekkelijk. Gepersonaliseerde feedback kan onze autonomie misschien versterken. Anderzijds wordt onze autonomie ook ondermijnd: door onze informatiele- en beslissingsprivacy te schenden worden we kwetsbaar voor verborgen, ongewenste beïnvloeding, zoals

manipulatie, door partijen die we geen deel willen laten zijn van onze beslissingen.

In hoofdstuk vier en vijf evalueer ik sociale netwerkdiensten als Instagram en dating-app Tinder. Deze technologieën beloven ons te helpen om onze sociale relaties te onderhouden en verbeteren. In hoofdstuk vier onderzoek ik de ambivalente ervaringen van meisjes met betrekking tot zichtbaarheid op sociale netwerkdiensten. Zorgt zichtbaarheid voor empowerment of wordt hun autonomie juist ondermijnd op Instagram? Ik onderzoek dit vanuit het perspectief van (commerciële) surveillance en manipulatie.

Sociale netwerkdiensten worden aan de ene kant gewaardeerd als platforms waarop mensen kunnen experimenteren met hun identiteit, voor het vinden van gelijkgestemden en het bouwen van online communities. Daarmee hebben ze een potentieel emanciperende functie. Anderzijds wordt dit potentieel ondermijnd door het commerciële en manipulatieve karakter van deze diensten. Commerciële sociale netwerkdiensten, zoals Instagram, bevorderen stereotype genderrollen, normen en gedrag in plaats van min of meer autonome zelfpresentatie die de constructie van betekenisvolle relaties mogelijk maakt.

In hoofdstuk vijf ga ik dieper in op hoe zelfbegrip en relaties veranderen onder invloed van de commerciële belangen die schuilgaan achter de intieme technologieën die we gebruiken. In dit hoofdstuk evalueer ik dating-apps, zoals Tinder, vanuit het perspectief van commodificatie. Ik onderzoek in hoeverre onze zelf- en sociale relaties door commerciële technologieën volgens markt normen worden gestructureerd en wanneer dat eigenlijk schadelijk is. Schadelijke vormen van commodificatie zijn (zelf) reïficatie, devaluatie en het uitbuiten en reproduceren van kwetsbaarheden. Wanneer ons zelfbegrip en onze sociale relaties op deze manieren worden geschaad kunnen ze hun waarde verliezen voor een autonoom leven. Ik concludeer dat dating-apps zoals Tinder zich niet schuldig maken aan schadelijke commodificatie, maar dat ze er wel aanleg voor hebben en we dus waakzaam moeten zijn.

In de conclusie neem ik afstand en reflecteer ik op hoe onze zelf- en sociale relaties worden gekwantificeerd en wat deze gekwantificeerde relaties voor onze samenleving betekenen. Ik bespreek het verband tussen de vier verschillende perspectieven – informationele privacy, beslissingsprivacy, surveillance en commodificatie – die ik heb onderzocht als ethische hulpmiddelen voor de evaluatie van commerciële self-tracking technologieën.

Ik besluit dit normatieve onderzoek door te stellen dat als het commerciële karakter van self-tracking technologieën te dominant wordt, deze technologieën ons zelfbegrip en onze sociale relaties op problematische wijze beïnvloeden. Terwijl het hulpmiddelen lijken te zijn voor empowerment, kunnen ze onze autonomie juist ondermijnen. Daarom moeten we kritisch zijn met betrekking tot de commerciële agenda achter technonormen die vorm geven aan en onderdeel zijn geworden van onze meest intieme relaties. Een autonoom leven leiden vereist dat we over de capaciteiten beschikken om verschillende (intieme), zinvolle sociale relaties te ontwikkelen en beslissingen te nemen die worden gemotiveerd door onze eigen waarden, overtuigingen en redenen. Autonome zelfpresentatie is een belangrijke capaciteit die ons in staat stelt om op dynamische wijze verschillende sociale rollen aan te nemen en onszelf te begrijpen en uit te drukken als autonome individuen. Dat komt steeds meer onder druk te staan wanneer we onze lichamen, ons gedrag en onze relaties steeds meer kwantificeren via technologie. Wanneer we steeds doorzichtiger worden.

About the Author

Marjolein Lanzing (1988) holds degrees in Philosophy (BA, ReMA) and Conflict Resolution and Governance (MSc) from the University of Amsterdam. In 2012 she obtained her social science degree with her thesis ‘Good Citizenship’, on perceptions of citizenship in the context of citizen initiatives in Amsterdam Oost. In 2013 she graduated *cum laude* from the Research Master Philosophy with her thesis ‘Changing Norms of Friendship’ on the relationship between privacy and intimacy in times of social media. From 2014-2019 she conducted her PhD research project at the 4TU Centre for Ethics and Technology at Eindhoven University of Technology, of which the results are presented in this dissertation. In 2017 she completed a research fellowship with Prof. Dr. Valerie Steeves at the Department of Criminology at the Faculty of Social Sciences and the Human Rights Research Centre at the University of Ottawa. Currently, she is a post-doctoral researcher at the Faculty of Philosophy, Theology and Religious Studies at Radboud University Nijmegen. She works at the Interdisciplinary Hub for Security, Privacy and Data Governance on the ERC-funded project ‘The Digital Good’ led by Dr. Tamar Sharon.

Marjolein is board member of Bits of Freedom, a Dutch NGO that protects online freedom and (digital) civil rights and co-organiser of the *Amsterdam Platform for Privacy Research*. Previously, she was the editorial assistant of *Philosophical Explorations*, a peer reviewed philosophy journal, specializing in the philosophy of mind and action. Marjolein is an active public speaker within the public debate on the ethics of technology. In 2017 she won the first prize with the #IkSchrijf essay competition with her essay ‘De Vrouw en de Stofzuiger’ (‘The Woman and the Vacuum Cleaner’) on the necessity of ethics courses for future engineers. Her contributions appeared in *Wijzgerig Perspectief*, *Filosofie Magazine*, *Filosofie & Praktijk*, *Algemeen Nederlands Tijdschrift voor Wijsbegeerte*, *Bij Nader Inzien*, *The Volkskrant*, *Het Parool*, *Vrij Nederland* and *Trouw*. She is currently working on an accessible book version of her dissertation intended for a broad audience.

List of Publications

Academic Publications

- Gabriels, K. & Lanzing, M. (*Forthcoming*). Ethical Implications of Onlife Vitriol. In: [*Online Vitriol* Polak S., Olteana, T., Trottier, D. & Williams, M. eds.] Amsterdam University Press.
- Van der Sloot, B. & Lanzing, M. (*Forthcoming*). The Continued Transformation of the Public Sphere: on the Road to Smart Cities, Living Labs and a New Understanding of Society. In: *Technology and the City* (Nagenborg, M., Stone, T. & Vermaas, P. eds.) Springer.
- Lanzing, M. 2018. ‘Strongly Recommended’: Revisiting Decisional Privacy to Judge Hypernudging in Self-Tracking Technologies. *Philosophy and Technology* (31:3)
- Lanzing, M. & Van der Sloot, B. 2017. Living Labs: De stad als laboratorium en de mens als proefkonijn. *Nederlands Juristen Blad*, Februari 2017.
- Lanzing, M. 2016. The Transparent Self. *Ethics and Information Technology* (18:1)

Professional & Popular Publications (selection)

- Lanzing, M. 2019. Bemoeizuchtige Algoritmes. *Filosofie & Praktijk* (39:4)
- Lanzing, M. 2018. Book Review, Zwemmen in de Oceaan (Bezige Bij) by Miriam Rasch, *Algemeen Nederlands Tijdschrift voor Wijsbegeerte* (110:4)
- Lanzing, M. 2018. Slaaf van het Algoritme. *Wijsgerig Perspectief* (58:2)
- Lanzing, M. 2017. De Vrouw en de Stofzuiger (First Prize Essay Competition #IkSchrijf). *Filosofie Magazine*, Jubileum Nummer Oktober 2017, issue 17
- Lanzing, M. 2017. Het Digitale Bestaan. *Het Financieele Dagblad*, April 2017
- Lanzing, M. 2016. Digitale Zelf-Ontplooiing. *De Helling*, December 2016.
- Lanzing, M. 2016. Pasts, Presents, Prophecies. On your lifestory and the (re)collection and future use of your data. In: *Mind You* (Janssen, L. ed.) Amsterdam University Press. Pp. 83-88.
- Lanzing, M. 2016. Vrijheid in Vergetelheid. *De Idee* (37:1)

The Transparent Self

Lanzing, M. 2016. Privacy Beschermt de Rechtsorde. *De Volkskrant*. 20 September 2016.

Awards

2017 Winner (1st prize, 1000 euros and publication in *Filosofie Magazine*) of the #IkSchrijf essay prize competition.

Simon Stevin Series in Ethics of Technology

Delft University of Technology, Eindhoven University of
Technology, University of Twente & Wageningen University
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Volume 18: Ching Hung, *Design for Green: Ethics and Politics for Behavior-Steering Technology*, 2019

Volume 19: Marjolein Lanzing, *The Transparent Self: a Normative Investigation of Changing Selves and Relationships in the Age of the Quantified Self*, 2019

Simon Stevin (1548-1620)

‘Wonder en is gheen Wonder’

This series in the philosophy and ethics of technology is named after the Dutch/Flemish natural philosopher, scientist and engineer Simon Stevin. He was an extraordinary versatile person. He published, among other things, on arithmetic, accounting, geometry, mechanics, hydrostatics, astronomy, theory of measurement, civil engineering, the theory of music, and civil citizenship. He wrote the very first treatise on logic in Dutch, which he considered to be a superior language for scientific purposes. The relation between theory and practice is a main topic in his work. In addition to his theoretical publications, he held a large number of patents, and was actively involved as an engineer in the building of windmills, harbours, and fortifications for the Dutch prince Maurits. He is famous for having constructed large sailing carriages.

Little is known about his personal life. He was probably born in 1548 in Bruges (Flanders) and went to Leiden in 1581, where he took up his studies at the university two years later. His work was published between 1581 and 1617. He was an early defender of the Copernican worldview, which did not make him popular in religious circles. He died in 1620, but the exact date and the place of his burial are unknown. Philosophically he was a pragmatic rationalist for whom every phenomenon, however mysterious, ultimately had a scientific explanation. Hence his dictum ‘Wonder is no Wonder’, which he used on the cover of several of his own books.