Self-tracking, datafication and the biopolitical prosumption of life

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Abstract
The marketing literature has both celebrated and critically scrutinised the active engagement of consumers in value-creation processes. These opposing analyses share a focus on the mobilisation of consumers’ social and cognitive abilities for value creation. This thesis contributes to this discussion by exploring how diverse aspects of consumers’ lives become involved in value creation, leading the entirety of life to become a resource. In particular, the thesis focuses on the popular consumption phenomenon of self-tracking, which allows and enables consumers to track, quantify and datafy diverse facets of their lives. Drawing on data from two empirical studies, which were based on interviews and observational netnography, the thesis engages with the notion of biopolitical marketing to analyse the extraction and appropriation of value from consumers’ lives.

The thesis contributes to the critical marketing literature by advancing the understanding of the biopolitical nature of marketing in extracting value from consumers’ lifestyles and subjectivities. The theoretical contributions include the notions of the “biopolitical prosumption of life”, the “prosumed self” and the “prosuming self”. The “biopolitical prosumption of life” entails the “creation of worlds” that allow and enable the development of market-aligned subjectivities, which can generate value for corporate interests. The notions of the “prosumed self” and the “prosuming self” are introduced to frame and elucidate these subjectivities. The empirical findings suggest that marketing interventions foster the development of marketing environments (“worlds”) that seek to contain consumers while allowing them to act freely, albeit in ways that augment the value that can be extracted and appropriated.
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List of appended papers

Paper I

Paper II
Charitsis, V., Skålén, P., Fyrberg Yngfalk, A. “Made to run”: Biopolitical marketing and the making of the self-quantified runner.
Submitted to Marketing Theory

Paper III
Charitsis, V. The Quantification Paradox: Exploring Consumers’ Attitudes towards Self-Tracking
Submitted to Journal of Research in Interactive Marketing

Paper IV
Charitsis, V., Bradshaw, A., & Zwick, D. Creating Worlds that Create Audiences: Theorizing Personal Data Markets.
Working Paper
1. Introduction

1.1 Academic marketing: From a managerial to a critical perspective
Marketing, as an academic field, has traditionally been dominated by a managerial approach and has largely been a prescriptive and managerial discipline. Its main aim has been to generate knowledge that can be used by organisations for the purpose of increasing profitability, ignoring the general societal impact that marketing practices may have (Alvesson, 1994; Burton, 2001; Skålén et al., 2008; Tadajewski, 2016). This logic is encapsulated in the definition of marketing that Philip Kotler (1967), arguably the most prominent and influential marketing author within academia and beyond, proposed in the first publication of his seminal textbook, aptly titled *Marketing Management*. On one hand, it highlighted the managerial role of marketing, while on the other, it emphasised its customer- and profit-oriented nature.¹ Almost four decades later, this narrow scope was still somewhat reflected in the definition suggested by the American Marketing Association in 2004: “Marketing is an organizational function and a set of processes for creating, communicating, and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders” (cited in Gundlach & Wilkie, 2009). In fact, the profit preoccupation of marketing and its inherent tendency to target and influence consumers propelled Alvesson (1994) to characterise it as “the most controversial sub-discipline of the management sciences”, arguing that its scientific status is contested and that there are doubts about its positive societal role. For Alvesson (1994), the managerial orientation that ensures that the academic marketing scholarship is geared towards a specific social elite (marketing executives) undermines any academic legitimacy that the field strives to attain. These negative perceptions about marketing scholarship are common among scholars from other, even relatively close, fields, with Alvesson himself serving as an example. For this reason, the marketing literature is still rarely referenced in other social sciences, even when studies focus precisely on marketing (Dholakia, 2012).

¹ Kotler (1967) defined marketing as “the analyzing, organizing, planning and control of the firm’s customer impinging resources, policies, and activities with a view to satisfying the needs and wants of chosen customer groups at a profit” (p. 12).
However, this cautious, if not outright negative, attitude towards the marketing literature, although somewhat valid, does not paint a completely accurate picture, as it fails to recognise a branch of marketing scholarship, albeit a marginalised one, that goes against the dominant managerialistic tendency. This strand of research has been termed critical marketing, and the aim of this thesis is to engage with and contribute to this field of marketing research.

In fact, in the past decades, a fair amount of marketing scholarship has attempted to go beyond a mere prescriptive approach in order to examine the role of marketing in contemporary capitalism (e.g. Arvidsson, 2005; Cova et al., 2011; Saren et al., 2007; Shankar et al., 2006, Skålén et al., 2008; Tadajewski, 2018, Tadajewski & Brownlie, 2008; Wood & Ball, 2013; Zwick & Bradshaw, 2016; Zwick & Cayla, 2011). Burton (2001) points to the 1970s as the decade that saw the emergence of critical studies about marketing, though not necessarily marketing studies, that questioned the positive effects of marketing in society, as marketing was treated as “the handmaiden of capitalist enterprise rather than being capable of generating real, tangible use or benefit to society” (p. 723).

Tadajewski’s (2010) meticulous investigation of the history of the marketing literature traces the first uses of the term “critical marketing” to the early 1980s. Marketing and management scholars have embraced the term “critical” to indicate their intention to elucidate ideologies and assumptions that underpin both the production of knowledge and the field of management itself, without ignoring the wider socio-economic environment within which these activities take place (Saren et al., 2007). Taking this into account, Skålén (2011, p. 21) informs us that a key aim of critical marketing studies is “to question managerialistic management and marketing theory and practice based on different forms of power analysis”. These analyses aim to address marketing’s increasing socio-economic role and power, as marketing discourse permeates all of society (Skålén et al., 2008; Tadajewski & Brownlie, 2008), even if and especially when it alleges not to exert such power (Zwick & Bradshaw, 2016) through the façade that it grants power to consumers (Shankar et al., 2006). The way marketing achieves to “empower” consumers has been empirically investigated in diverse settings, including weight loss programmes (Yngfalk & Fyrberg Yngfalk, 2015), commercial internet platforms (Bonsu & Darmody, 2008), bottom of the pyramid initiatives (Varman et al.,
In 1994, Alvesson called on the urgency for academic scholarship to investigate the role of marketing processes in elevating consumption rates and placing consumption at the very top of people’s priorities, distorting people’s actual needs and wants as consumption becomes an end in itself. Tadajewski (2016) maintains that critical marketing studies have responded to this and that while the mainstream marketing literature only emphasises the positive aspects of consumption, critical marketing studies attempt to deconstruct marketing theory and practice in an effort to uncover the dark side of a field that is driven by the capitalist ideal of profit. However, even the mainstream marketing literature has not remained oblivious to such developments, as the traditional bastions of managerialism in academic marketing, while still in diametrical antithesis to critical marketing scholarship, have also come to acknowledge the need for a broader scope in marketing thought. Kotler and Keller (2016), in a revised edition of *Marketing Management*, while still emphasising the profit preoccupation—as marketing is about identifying and meeting needs profitably—point out that these needs can be both human and societal. Thus, they offer two definitions of marketing, one managerial and one societal. In a similar vein, the revised definition of the American Marketing Association (AMA, 2013) has extended the scope of marketing, both in terms of what marketing entails and in relation to the individuals and groups of people that it should take into account, as marketing refers to: “the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large”. Thus, the need to broaden the scope of marketing thinking and scholarship has also been acknowledged by the most established figures and institutions in the field.

Responding to calls for academic marketing to embrace a broader scope, the present study aims to contribute to critical-oriented marketing scholarship. This branch is not preoccupied with the effectiveness of marketing strategies; it examines the role of marketing and consumption in contemporary societies. To this end, the following sections examine the reconfiguration of consumers as
active participants in value creation, focusing, in particular, on their active involvement in (and through) digital environments and technologies.

1.2. Consumers as active participants

Despite the increase in marketing scholarship on the broader societal impact of marketing, the vast majority of studies in marketing continue to adopt a prescriptive managerial perspective (Kilbourne & Beckmann, 1998; Rennstam, 2013; Sheth & Sisodia, 2006; Wilkie & Moore, 2003, 2012). At the same time, the actual relevance of academic marketing to practice and practitioners is being contested (Mason et al., 2015; Tapp, 2005). An increasingly popular and dominant strand of literature has focused on the reconfiguration of consumers as active participants in value creation as a fundamental component of successful contemporary marketing practices. The active engagement of consumers who use their skills and knowledge in value creating processes has been broadly analysed in the marketing literature as “value co-creation” (e.g. Prahalad & Ramaswamy, 2004; Vargo & Lusch, 2004). Co-creation has been hailed as the future of marketing, which not only helps firms reach their – financial or other – targets, but also provides substantial benefits to consumers. This signifies that value is no longer created and delivered to consumers who act as passive recipients of value propositions (Ramaswamy, 2008). On the contrary, consumers, in direct or indirect collaboration with firms, become actively engaged in the creation of value.

In 1980, Toffler introduced the portmanteau “prosumption” to highlight the increasingly growing engagement of consumers in production processes. Aided by the widespread adoption of the internet, prosumption activities have skyrocketed in recent years, as internet users perform the role of digital prosumers (Fuchs, 2014a; Ritzer & Jurgenson, 2010). In fact, technological advances have played a major role in the advancement of the co-creation economy in general, enabling closer interaction and collaboration between firms and consumers (Payne et al., 2008). The endless possibilities afforded through technology for mass collaboration in the marketplace have been captured by Tapscott and Williams (2006) in their use of the term “wikinomics”, which encapsulates the active engagement of multiple actors in the digital sphere.
1.3. Value creation and Web 2.0
The interactive nature of Web 2.0 technologies has catapulted the consumer – as an active user – at the centre of content creation. It has also created a new digital economy where the user has become the main contributor of value through the generation of content and, more importantly, through the production of data (Andrejevic, 2015; Fuchs, 2014a; Rey, 2012). This has led to numerous debates within academia and beyond as it will be further explicated with the presentation of opposing perspectives. Some commentators, including marketing scholars, highlight the empowering character of such technologies, which allows users to become active participants instead of remaining passive recipients of media, political and marketing messages (Füller et al., 2009; Prahalad & Ramaswamy, 2004; Zwass, 2010). In fact, it is argued that Web 2.0 has forever changed the marketing landscape and that marketing is no longer seen as a practice aimed at consumers, but as a cooperative activity between marketers and consumers (Muniz & Schau, 2011). In contrast to mainstream marketing studies that analyse the interactive nature of Web 2.0 in terms of co-creation, various critical studies from diverse traditions and fields have focused on the political economy of Web 2.0. These studies emphasise that interactive technologies promote the exploitation of users’ online activities for economic gain and are a foundational part of what has been theorised and analysed through terms like digital capitalism (Schiller, 1999), surveillance capitalism (Zuboff, 2015), communicative capitalism (Dean, 2010) or prosumer capitalism (Ritzer & Jurgenson, 2010). Similarly, there has been an emergence of marketing and consumer research studies with a critical stance towards the interactive, empowering and co-creative ethos of the digital economy (e.g. Bonsu & Darmody, 2008; Cova et al., 2011; Zwick & Bradshaw, 2016; Zwick et al., 2008). As explicated earlier, moving away from a managerialistic and prescriptive approach, these critical marketing studies focus on the power relations (Saren et al., 2007; Skålén, 2011) that emerge in digital environments and underline that the emergent digital economy is premised on the appropriation of unpaid consumer labour (Cova & Dalli, 2009; Zwick et al., 2008). This unpaid labour is mobilised at the very moment that consumers’ knowledge and skills are “translated into productive activities that are pleasurably embraced and at the same time often shamelessly exploited” (Terranova, 2000, p.
37). For Zwick and Bradshaw (2016), virtual brand communities provide an exemplary illustration of the unfolding of contemporary marketing based on the extraction of value from consumer communication, lifestyles and subjectivities. By doing so, marketing becomes biopolitical. The biopolitical nature of contemporary marketing (and capitalism in general), whose objective is to create forms of life and subjectivities that are aligned with market-based values, serves as the foundational framework of the present study. Thus, this theme will be further discussed and analysed throughout the thesis (including the present chapter).

1.4. Beyond Web 2.0: Value creation and smart technologies

Technological advances have, throughout history, played a major role in the way people communicate, interact, work, behave, consume and experience their everyday lives. In recent decades, the advent of the internet and its mass universal adoption has completely altered people’s personal, social and professional lives as well as their consumption habits and behaviours. More recently, the emergence of Web 2.0 technologies has again transformed the way we, as consumers, interact with the technology itself and with each other. Digital consumption has become so pervasive and inextricably woven into our lives and culture that it is almost impossible to think of our daily lives without it (Kozinets, 2013). In fact, not being able to access and take part, or even refusing to engage, in the digital realm reduces people’s economic, health, entertainment, educational and other opportunities in life (Llamas & Belk, 2013). From mundane to major consumption choices (weekly groceries to purchasing a new house or car), from daily travel plans to arranging family vacations to distant exotic places, from life-defining decisions (such as choosing an educational path or institution) to discovering career opportunities and from finding entertainment options to accessing social and healthcare services—consumption behaviours have been transformed as they are now informed, influenced and guided by our engagement with digital environments. This creates fundamental changes in the concept, sense, (re)presentation and even the construction of the self (Belk, 2013), allowing and even actively fostering the development of new subjectivities, which is a subject of the present study.
More recently, the development of mobile and smart technologies and their widespread adoption from large and diverse segments of the population have rendered them an integral part of people’s everyday lives and consumption activities. For example, smart technologies have become increasingly popular in recent years, allowing users to track one or more of their daily activities (see Lupton, 2016; Neff & Nafus, 2016).

This phenomenon of self-monitoring with the aid of digital technological tools and devices has become known by terms such as self-tracking and self-quantification. While people have been monitoring and documenting their own activities for centuries (Jungnickel, 2015; Li et al., 2010; Lupton, 2014a), the emergence and proliferation of smart digital technologies have enabled individuals to track and quantify their whole lives in an unprecedented manner. Self-tracking has been broadly defined as the “multitude of practices that center around systematic recording of personal behaviours and responses” (Barta & Neff, 2014, p. 9). The ease of use of such tracking tools has fostered the development of a culture of individuals tracking their own activities, which is becoming increasingly popular among diverse segments of the population. Many different self-tracking tools are now available on the market, allowing consumers to track various aspects of their lives, including physical activities, sleep patterns, emotional states, food intake, sexual behaviours, health and well-being, financial conduct, relationships, work productivity, learning practices and other somatic, mental and social dimensions. The popularity of self-tracking is evident in a number of reports that indicate that the market for self-tracking-related tools and devices will soar in the coming years (e.g. Analysys Mason, 2014; Anderson & Rainie, 2014; BCC Research, 2015; Berg Insight, 2013; Salah et al., 2014). However, while in past times chronicling some instances of a person’s life through practices like diary keeping was essentially a personal and private matter, digital self-tracking elevates this phenomenon into the social sphere and unravels a number of issues, challenges and consequences. Central to these issues is the incidence of self-tracked generated data, which provides an unparalleled value extraction opportunity for companies that increasingly base their marketing strategies (Zwick & Denegri-Knott, 2009) as well as their whole business models (Andrejevic, 2015) on the appropriation of user-generated data. In the service
dominant-logic discourse, technology attains the role of an operant resource that has the ability to act on other resources for the creation of value (Akaka & Vargo, 2014). User-generated data are an example of such a resource (operand resource), as marketing is increasingly premised on consumer data (Zwick & Denegri-Knott, 2009), and thus, it becomes a central component of value co-creation. As the present study will further argue and analyse, in the case of self-tracking, this signifies that the entirety of human existence is treated as a resource, concomitantly operant and operand.

1.5. Datafication of life

The proliferation of digital tools into our everyday lives has not only resulted in the construction of consumer identities and subjectivities, but also the generation of vast amounts of data. In fact, the construction of subjectivities and the generation of data are inextricably and inherently interwoven. Data have been identified as the “new oil” (Palmer, 2006) that fuels modern-day capitalism, as the abundance of available data has created a shift in the way capitalism operates, even revitalising it. As Šrnicek (2016, p. 6) explains:

> with a long decline in manufacturing profitability, capitalism has turned to data as one way to maintain economic growth and vitality in the face of a sluggish production sector. In the twenty-first century, on the basis of changes in digital technologies, data have become increasingly central to firms and their relations with workers, customers, and other capitalists.

For this reason, it has been argued that any analysis of capitalism should first and foremost focus on data, as we are experiencing the surge of “data capitalism” (Aceti et al., 2014; Morozov, 2015a). The role of data has mainly come to prominence in scholarly as well as popular discourse through analyses of commercial Web 2.0 platforms that base their business models on the appropriation and exploitation of user-generated data (e.g. Fuchs, 2014a; Šrnicek, 2016; van Dijck, 2009). However, this configuration has been augmented, reaching extreme levels through the monitoring and capturing of users’ lives. In fact, the generated data are the most distinctive feature of self-tracking; through the use of self-tracking tools and devices, people produce data for different and diverse aspects of their lives, leading to the datafication of everyday life. Mayer-
Schönberger and Cukier (2013, p. 90) explain that to “datafy a phenomenon is to put it in a quantified format so it can be tabulated and analyzed”. Datafication can be seen as “the ability to render into data many aspects of the world that have never been quantified before” (Cukier & Mayer-Schoenberger, 2013, p. 2). The importance of the increased datafication of everyday life is highlighted by a number of diverse reports, publications and commentators. Van Dijk (2014, p. 198) argues that datafication “as a legitimate means to access, understand and monitor people’s behaviour is becoming a leading principle, not just amongst techno adepts, but also amongst scholars who see datafication as a revolutionary research opportunity to investigate human conduct”. A report by Europol (2014) on the threat of organised crime on the internet also underlines the growing datafication of everyday life, which is spearheaded by the increasing number of devices and sensors that track quotidian activities, exemplified by the rising popularity of self-tracking tools. Conversely, Morozov (2015b) sees datafication as another aspect of the general financialisation of everyday life, as people, in an exemplary manifestation of neoliberal governance, are expected to become data entrepreneurs who develop and maintain their own data portfolios. Data and datafication are thus inextricably linked to both the phenomenon of self-tracking and contemporary marketing practices. Thus, they are central to the present investigation.

1.6. Aim and research questions

Following the above analysis, datafication is a central point of interest in the present thesis. It also guides the empirical and theoretical research studies that comprise the thesis. Equally important for the present thesis is the tenet that self-tracking, like any other technology, does not appear and exist in a vacuum (see Hardt & Negri, 2000). On the contrary, the emergence and adoption of technological advances are influenced by various economic, political and societal factors, with technology potentially having a tremendous impact on individuals and societies.

Self-tracking, in particular, can be seen as a manifestation of a wide-scale market-driven datafication of life. It represents a particularly interesting expression of datafication, as it is not “enforced” on people, or even performed without their
explicit knowledge or consent, which is the case of many other instances of digital technologies. It is the result of an active, voluntary – at least ostensibly – and sometimes even enthusiastic consumption of technological devices. It represents a consumption practice that not only captures and datasies consumers’ lives, but also reconfigures their lives according to specific economic interests; thus, it has biopolitical implications, as data, and consequently human life, become a resource in value co-creation processes.

From the standpoint of the dominant marketing literature, value creation has increasingly become a collaborative affair, enabled by social collaboration between marketers and consumers (Lusch & Vargo, 2006; Prahalad & Ramaswamy, 2004; Vargo & Lusch, 2004). From a dramatically different vantage point and motivation, Hardt and Negri (2009, 2017) acknowledge that we have entered an era of biopolitical production, whereby economic value creation is inextricably linked to the production of subjectivity and social relations. The concept of biopower was introduced by Foucault (1978) and refers to “numerous and diverse techniques for achieving the subjugations of bodies and the control of populations” (p. 140). Thus, for Foucault (1978), biopower works on two levels: one aimed at maximising the efficiency of the human body of individuals through disciplinary techniques (the anatomopolitics of the human body), and one that refers to the interventions, statistical representations and regulatory controls over the entire social body (“the species body”), i.e. a biopolitics of the population.

Hardt and Negri (2000, 2004, 2009) have expanded the scope of biopower beyond the biological domain, which “includes all elements of embodied existence such as the affects and desire” (Read, 2001, p. 27), and have introduced the term biopolitical production, which signifies the production of forms of life and subjectivities. More precisely, the forms of life and consumer subjectivities that relate to the digital consumption of self-tracking technologies, including the marketing strategies that foster them, constitute a main point of interest of the present study. In addition to the development of specific consumer subjectivities, the present study also examines how these consumer subjects become active participants in value creation processes, as their lives become commodified and exploited through the appropriation of their data. Thus, there is a twofold level of analysis: one that is concerned with the formation of consumer subjectivities,
which draws on the work of Foucault, and one that focuses on consumer commodification and exploitation, which is based on Marxist theories. As Bidet (2016) explains, Foucault is the main theoretician when it comes to the constitution of the subject. However, for analysing processes of appropriation and exploitation, Marx remains the main point of departure. The works of Hardt and Negri, which are influenced by both these traditions, provide the main inspiration for the theoretical basis of the present study.

As mentioned earlier, there is a tendency in the dominant marketing discourse to praise the role of consumers as operant resources that employ their knowledge and skills in mutually beneficial value co-creation processes (Vargo & Lusch, 2004, 2008). Critical marketing approaches to value co-creation, on the other hand, suggest that marketing becomes biopolitical as is strives to appropriate and incorporate social and cultural aspects of life in economic value creation (Zwick & Bradshaw, 2016; Zwick & Ozalp, 2011). Following and extending this argumentation, the present study examines the role of contemporary value co-creation marketing practices in the biopolitical prosumption of life itself. Here, not only is production associated with the production of subjectivities and social relations (Hardt & Negri, 2009, 2017), it is also largely connected to specific consumption practices. Following Hardt and Negri, the present study looks beyond the mobilisation of specific aspects of life (cognitive, social, affective etc.) and examines how human existence as a whole becomes entangled in value creation processes in contemporary marketing.

Thus, the aim of the thesis is to examine and analyse self-tracking as a digital consumption phenomenon, from a biopolitical marketing perspective, in order to contribute to critical marketing research and discussions on extracting and appropriating value from consumers. In particular, the thesis explores how contemporary marketing targets and appropriates increasing aspects of consumers’ lives for value creation purposes, wherein self-tracking provides a pertinent context in its ability to monitor and quantify an array of different facets of consumers’ lives, including – and combining – bodily, cognitive, social and emotional elements. By doing so, the present study contests and contributes to both critical marketing studies and the mainstream marketing discourse, which focuses mainly on consumers’ skills and knowledge as operant resources in value.
co-creation. It does so by arguing that life itself has become an operant and operand resource, as the totality of life is targeted and commodified.

As delineated earlier, self-tracking serves as the empirical context of the present study. Pertinent to the emergence of self-tracking as a popular consumption phenomenon are the marketing strategies that are associated with it. However, these marketing interventions, especially if successful, have a profound effect on individual consumers, while also shaping the market environment, even by establishing new markets. Therefore, a number of more targeted research questions and objectives guide the present study and are intent on providing insights into the above-discussed issues and the overall aim of the thesis. In particular, the study explores how (biopolitical) marketing strategies foster the development of consumer subjectivities and forms of life in enabling the adoption of self-tracking practices and the appropriation of value from consumers’ lives.

Second, the thesis investigates consumers’ attitudes towards self-tracking technologies and pertinent marketing interventions. In this respect, it contributes to the scant empirical literature on the actual practices of self-tracking (Pantzar & Ruckenstein, 2015). Finally, the thesis examines and critically analyses the development of personal data markets as a response to corporate appropriation and commodification of user-generated data.

The questions are addressed in the four papers that comprise the thesis, which are appended at the end of the thesis. The first question is addressed both conceptually and empirically in the first two papers. The second research question guides the empirical study, which is presented in paper three, and consists of twenty individual semi-structured interviews with consumers of different self-tracking tools. The last question is tackled through a conceptual investigation of personal data markets and is presented in paper four.

1.7. Overall thesis outline

The present thesis comprises two parts. The first or current part constitutes the cover essay (“kappa”), which provides a comprehensive overview of the thesis, while the second part includes the four papers, fully appended, upon which this thesis is based. The cover essay is divided into six chapters, and an overview of the content of each chapter is offered below.
This first chapter serves as an introduction and provides a general outline of the thesis, introduces the studied phenomenon, articulates the rationale for the study and presents the overall research aim along with more specific research questions. The second chapter presents the theoretical framework and grounding of the study. It presents Marxist-inspired analyses on user commodification and exploitation. Drawing on the works of Foucault as well as Hardt and Negri and related studies, it discusses the biopolitical nature of contemporary capitalism and engages with pertinent marketing studies analysing the biopolitical transformation of marketing. By doing so, it positions the study within critical marketing, in general, and the emerging literature on biopolitical marketing, in particular.

While the second chapter provides the general theoretical basis of the present thesis, the third chapter focuses on studies pertaining directly to self-tracking, presenting a comprehensive literature review of self-tracking and drawing from studies from different fields. Different definitions of self-tracking are presented, and a discussion and analysis of the main studies from recent years regarding the main aspects of self-tracking are developed. Studies from different fields that adopt a critical view of the increasing popularity of self-tracking are also discussed. The nascent but emerging marketing and consumer research literature on this phenomenon is presented. This situates the present study within the critical stream of the interdisciplinary academic discourse on self-tracking as well as in the more focused and limited marketing and consumer research literature.

Thereafter, chapter four offers an overview of the research methodology employed in the thesis, along with a justification for its suitability and relevance. Ethical issues are also considered, and the trustworthiness of the study is defended. The subsequent chapter, chapter five, presents a summary of the four papers constituting the thesis and highlights their theoretical and empirical contributions. The contributions of the individual papers are brought together and connected in the following chapter, chapter six, the concluding chapter of the thesis. The main outcomes of the thesis are presented and the overall contribution is discussed and linked back to the research aim and questions. Societal implications are considered, limitations are discussed, and suggestions for future research are provided.
2. Theoretical background and positioning

2.1 Introduction

The present study aims to advance understanding of how different and diverse aspects of consumers’ lives are becoming resources for value extraction. It uses a biopolitical marketing perspective and focuses on an examination of the popular digital consumption phenomenon of self-tracking. The thesis argues that biopolitical marketing practices strive to appropriate and extract value from consumers’ subjectivities and forms of life. Thus, the first level of analysis pertains to issues of appropriation, commodification and exploitation of consumer labour. To address these issues, the thesis draws on Marxist theories, which are presented and outlined in the first section of the present chapter, along with critical marketing studies that have engaged with this tradition. Another level of analysis concerns the development of pertinent subjectivities and lifestyles that allow and even augment the extraction of value from consumers’ lives. To analyse this development, the chapter engages with Foucauldian (and post-Foucauldian) approaches to power. Critical marketing studies that have been inspired and influenced by these perspectives are also discussed.

While this thesis does not aspire to resolve the tensions between the Marxist and Foucauldian traditions, it is deemed necessary to present and analyse both, as they provide inspiring theoretical perspectives for the present study, not least through their influence on the works of Hardt and Negri, which is then discussed and which provide the foundation for the notion of biopolitical marketing. Particular focus is placed on Hardt and Negri’s notion of biopolitical production, which provides the main foundation for the analysis. The notion of biopolitical marketing is then presented and explicated. Following this, the chapter engages in a discussion of how the theoretical grounding of the study contributes to the critical marketing literature, in general, and biopolitical marketing, in particular. I then return to the critical marketing tradition, which was outlined in the previous

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2 For recent attempts at untangling the tensions between Marx and Foucault, see Bidet (2016), Macherey (2015) and Negri (2017).
sections as well as the first chapter, and situate the present study within this stream of literature. The chapter concludes with a summary of the main points.

2.2 A Marxist perspective on consumer culture

A main point of interest in the present thesis is to explore the commodification and exploitation of consumers’ labour in its cognitive, physical, affective and social dimensions. To do so, I initially draw on Marxist theories. In this section, I introduce and explicate some key Marxist concepts that are central to my work and link them to contemporary forms of capitalism. Pertinent critical marketing studies that engage with Marxist theories are also presented and discussed.

For Marx, capital is first and foremost a social relation (Cleaver, 2000). In his analysis of capitalism, Marx underlined that “production, distribution, exchange and consumption form a regular syllogism; production is the generality, distribution and exchange the particularity, and consumption the singularity in which the whole is joined together” (Marx, 1993, p. 89). He starts and grounds the deconstruction of “the whole” by focusing on the notion of the commodity, as “the wealth of those societies in which the capitalist mode of production prevails, presents itself as an immense accumulation of commodities” (Marx, 1976, p. 1). Cleaver (2000, p. 81) further explicates that Marx begins his analysis with the commodity because “the commodity form is the fundamental form of capital”.

Lukács (1971) maintains that while commodities existed way before capitalism, they were never the central point of organised societies. It is only in modern capitalism that commodity exchange attains such a dominant role in everyday life. Thus, the issue for Lukács is to explore, understand and answer “how far is commodity exchange together with its structural consequences able to influence the total outer and inner life of society” (p. 84). The answer comes from Lukács’ analysis of the reification of human relations, the transformation of human beings into things that can be commodified. Reification has both an objective and subjective dimension. As Schulz (2016, p. 48) explains, “individuals not only become objects of the social process, they consider themselves to be objects”. Thus, reification “stamps its imprint upon the whole consciousness of man; his qualities and abilities are no longer an organic part of his personality, they are things which he can ‘own’ or ‘dispose of’ like the various objects of the external
world” (Lukács, 1971, p. 100). Marx distinguishes between the use and exchange value of a commodity; the former denotes the utility of an object, while the latter refers to the relative value of the commodity in relation to other commodities (Arvidsson, 2011). Commodification then refers to processes that transform use values into exchange values (Mosco, 1996). A product becomes a commodity when it is exchanged from one person to another, for whom it will have use value (Marx, 1976). Thus, in stark contrast to the dominant contemporary co-creation marketing discourse—which prioritises use value over exchange value, overlooking the political dimensions of consumption and markets in general—for Marx, exchange value is what constitutes the significant characteristic of a commodity in capitalist economies (Hietanen et al., 2017).

What is even more important for capital accumulation is what Marx (1976) calls the “hidden abode of production”. This has been overlooked in the marketing literature and elsewhere, as the relations of production have been ignored (Hietanen et al., 2017) and the human labour that is invested in the production of commodities has been neglected (Harvey, 2010). Focusing on human labour, Marx again makes a clear distinction, as well as a link, between the capacity of labour, which he calls labour power, and actual labour. He defines labour power as “the aggregate of those mental and physical capabilities existing in a human being, which he exercises whenever he produces a use-value of any description” (Marx, 1976, p. 270). Labour power is not unique to capitalism; however, it becomes a central component of capitalism when it is bought and sold in the market, when it becomes commodified wage labour. For capital to profit from this exchange – labour power for wages – there needs to be an imbalance, in favour of capital, between the compensation that workers receive and the value that they produce through their labour. This imbalance constitutes exploitation of labour, as capital appropriates surplus value through the process of the conversion of labour power into a commodity. Surplus value, upon which capitalists derive their profits, denotes the uncompensated labour that exceeds the proportion of labour that is necessary for workers to secure the means of subsistence. For Marx, labour time is split into necessary labour time, the time that the wage worker needs to work in order to be able to afford the goods that are necessary for survival, and surplus labour time, which is all additional labour time (Fuchs, 2012).
There are two ways that capital can increase exploitation: first objectively, by extending the working day and, second, relatively, by intensifying the levels of productivity (Dyer-Witheford, 1994). As Marx notes “the production of absolute surplus value turns exclusively upon the length of the working day: the production of relative surplus value revolutionizes out and out the technical processes of labor and the composition of society” (1976, p. 645). Accordingly, exploitation is made possible by two distinct forms of subsumption of labour to capital: formal subsumption, which corresponds to absolute surplus value and exploitation, and real subsumption, which is linked to relative exploitation. Generally, subsumption refers to the incorporation of labour by capital in processes of value creation and value extraction (Dyer-Witherford, 1994). Historically, formal subsumption has preceded real subsumption, as it emerged during the early stages of capitalism when pre-existing labour processes were assimilated and appropriated by capital through the imposition of wage relations (Dyer-Witherford, 1994). Conversely, real subsumption appeared after the Industrial Revolution, as “the process of exploitation and extraction of surplus-value passes from the extensification to the intensification of the labour process” (Fumagalli, 2015, p. 227).

As Marx (1976) points out, the extent of appropriation of surplus labour has been limited by two factors: the physical limitations of labour power and the moral limitations prevalent in every society, which allowed labourers to satisfy their intellectual and social needs. In other words, the working day can extend only to a certain degree, as workers need to rest, sleep, feed themselves, and so on, in order to be able to reproduce their labour power. Thus, capital needs to intensify the labour process in order to increase the relative surplus value or, as per the argument of the thesis, to extend labour processes and the appropriation of value beyond the limits of the actual working day.

In recent decades, the predominance of neoliberal ideals and policies—which extend the logic of marketisation into all spheres of life, reconfiguring humans predominantly as market actors (Brown, 2015)—has enabled new forms of commodification and opportunities for value extraction. In neoliberalism, economic discourse permeates every aspect of human activity and ultimately develops into a way of life, as everything is seen as an investment that must produce maximum gains with minimum expenditure (Read, 2009). Under the
In the late 1970s, Dallas Smythe suggested that labour time extends beyond the limits of the working day, as people, as members of audiences of mass media, engage in labour processes. In his seminal piece, Communications: Blindspot of Western Marxism, Dallas Smythe (1977) argued that by focusing on the role of mass communication systems, “in their capacity to produce ‘ideology’” (p. 1), critical, and specifically Marxist, scholars had provided unsatisfactory analyses of the role of mass media in capitalist systems as they have failed to scrutinise their economic function. To address this error, the “blindspot”, Smythe developed the notion of the “audience commodity”. The basic premise of his argument was that in monopoly capitalism, all non-sleeping time constitutes work time, as people continue to work beyond their regular working hours either as members of audiences or in the production and reproduction of their labour power (Smythe, 1977). Focusing his critique on the role of media communications, he maintained
that what is produced and sold as a commodity to advertisers are audiences themselves, hence the term “audience commodity”. In that respect, Smythe offered an alternative Marxian analysis of media communications that did not focus on the ideological effects of mass media, but highlighted their economic function in capitalism through the generation of surplus value and the appropriation and exploitation of audiences’ unpaid labour (Fuchs, 2012). With the advent of Web 2.0, Smythe’s audience commodity concept has attracted new interest, with various studies (which will be further discussed below) exploring the commodification and exploitation of users’ online activities and data.

Re-examining the concept of the audience commodity in relation to the virtual social network economy, Fisher (2012) argues that while users of social networks are more engaged in production and, thus, less alienated than the passive television audiences, the exploitation of users’ labour is much higher in the context of current mass communication technologies. In fact, the higher the level of exploitation, the lower the level of alienation. McGuigan (2014) makes the point that the proliferation of personal computers, smartphones and other networked devices, which enable the valorisation of creativity and personal information, calls for a re-examination of advertising, marketing and branding practices. Internet user commodification can be seen as a manifestation of neoliberal capitalism in its aim to expand the reach of the market by treating everything as a commodity, thus broadening exploitation (Fuchs, 2014b). This is manifested even more profoundly in the self-tracking culture, where data generation and commodification are not confined to specific digital behaviours and environments, but can be constant and can encapsulate a number of diverse human activities. The fact that digital labour can be disguised as play is paramount in extending labour into leisure time, as in the case of self-tracking, thus opening up possibilities for the generalisation of exploitation (Fuchs, 2012). The second paper of the thesis explicates that gamification, through the introduction of different play-like elements, constitutes a vital component of the self-tracking experience.

The digital revolution, including developments like self-tracking, has provided fertile ground for the expansion and generalisation of exploitation, ushering in the era of digital capitalism, whereby “networks are directly generalizing the social and cultural range of the capitalist economy as never before” (Schiller, 1999, p. 19)
Fuchs (2012) argues that because internet users are not paid anything for the value that they create, all digital labour is surplus labour time. According to Fuchs (2012), ideology pertaining to digital media works in two ways: first, social media are presented as the exemplary form of active participation and democracy; second, work and exploitation are disguised as play. This opens up endless possibilities for surplus value extraction, as leisure time also becomes appropriated and subsumed by capital (Prodnik, 2012). Haggerty and Ericson (2000) also point out that in our times, the generation of surplus value is not limited to traditional conceptions of wage labour, but encapsulates cybernetic activities that are constantly being monitored.

Thus, initial celebratory reactions to the emergence of Web 2.0 and other digital technologies have given way to a sombre realisation that the new digital economy is driven, not by a dedication to more egalitarian and inclusive societies, but by the desire to extract value from every human activity through the commodification of their data, a development that Zuboff (2015) calls “surveillance capitalism”. This realisation has recently engendered many critiques by academics, activists, media critics as well as “disruptive entrepreneurs”, who suggest that the answer to this one-sided distribution of generated wealth—firms receive all the financial gains, while users, who generate the data, receive nothing—is to compensate individual users through personal data markets. Whether such a development can actually, or even aims to, redress the exploitation of users’ digital labour is addressed in the present thesis, in particular, in the fourth appended paper.

2.2.1 Critical marketing studies and Marxist theories

Marxist-inspired critical marketing research is relevant for the present thesis, as it has examined and theorised consumers’ engagement in value creation as consumer work and has analysed the exploitation of that – unpaid – work (e.g. Cova & Dalli, 2009; Cova et al., 2015). The erosion of boundaries between production and consumption (Firat & Venkatesh, 1995; Ritzer & Jurgenson, 2010) has engendered marketing studies on prosumption and value co-creation. The seeds of the notion of prosumption, which was introduced and popularised in recent decades, can be traced back to the writings of Marx, who acknowledged
the dialectic relationship between production and consumption (Marx, 1973). As the literature on prosumption indicates, consumers have always been engaged in production processes (Ritzer, 2010; Ritzer & Jurgenson, 2010). However, the emergence of the internet and, more recently, social media and Web 2.0 technologies, has provided fertile ground for digital prosumption in developing and reaching unprecedented levels, while consumers are celebrated as collaborators, co-producers or even partners (see, e.g. Prahalad & Ramaswamy, 2000; Tapscott & Williams, 2006; Vargo & Lusch, 2004). It is precisely the social nature of Web 2.0 and its universal acceptance and popularity that has contributed to the steep rise in prosumption activities in recent years. In fact, internet productivity has been intrinsically connected to sociality (Rey, 2012). It is even suggested that the proliferation of consumer community constructs, such as consumer tribes, largely attributed to the popularity of social networking sites, will eventually render the production/consumption divide obsolete (Cova et al., 2007). The social dimensions of consumption are further examined by critical scholars. Engaging with autonomist Marxist thought, Arvidsson (2006) sees consumption as a form of “immaterial labour” that generates an “ethical surplus” comprising of social relations, shared meanings and experiences—in other words, a common (see Hardt & Negri, 2004) appropriated and exploited by capital.

The bulk of pertinent research in the marketing literature has adopted a managerial perspective, approaching prosumption and value co-creation from a positive point of view and examining the potential benefits that accrue to both companies and consumers (see, e.g. Vargo & Lusch, 2008; Xie et al., 2008). According to this literature, products are seen as bestowing an array of affordances on consumers in order to maintain, repair, tweak, change and use an appliance in such a manner as to satisfy their own wants, needs and lifestyles; through this process, they transform into producers, marketers and consumers, therefore prosumers, and become the main creators of value (Vargo & Lusch, 2004). Nevertheless, this dominant rhetoric of consumer empowerment overlooks the fact that, in essence, digital prosumption entails outsourcing of work from paid labourers to unpaid consumers (Söderberg, 2007). Thus, a more critical discourse on producer-consumer interaction and value co-creation treats them as consumer work (Cova & Dalli, 2009) and underlines the exploitation of consumers’ unpaid labour (Cova
& Dalli, 2009; Cova et al., 2011; Zwick et al., 2008). In fact, it has been argued that prosumption and value co-creation practices promote exploitative consumer work (Cova & Dalli, 2009; Cova et al., 2015).

The plethora of studies from diverse fields that still draw on and engage with Marxist theory signifies its relevance and ability to explain, analyse and critique current and emerging modes of capitalism. In Marx’s era, the factory as the main site of capitalist production was ruled through discipline, coercion and even violence. In the current landscape, the new spirit of capitalism is based on individual freedom, autonomy and creativity (Boltanski & Chiapello, 2005). In line with the new spirit of capitalism, the new spirit of marketing, biopolitical marketing, relies on consumers’ active participation, on their creative capacities and on their autonomic ability; it is precisely the mobilisation of these attributes that creates value for capitalism.

The second paper of the thesis empirically examines how these attributes are mobilised within the context of a self-tracking system. Thus, the production processes that increasingly take place in the social factory cannot be forced, but need to be motivated, developed and fostered through the promotion of specific subjectivities and lifestyles. The present study examines the development of these subjectivities and lifestyles in relation to self-tracking activities that allow for the extraction of value from consumers’ lives.

An issue, thus, which is of significant interest to marketing scholarship and particularly to the present study, is the notion of subjectivity, though it has been inadequately addressed in traditional Marxist theory. While Marx (1993, p. 92) explicitly states that “production thus not only creates an object for the subject, but also a subject for the object”, the matter of subjectivity has remained under-theorised in Marxist tradition. As Barrett (1991, p. 110) puts it, “the question of subjectivity….is a massive lacuna in Marxist theory”. The works of Hardt and Negri, engaging with both Marxist and poststructuralist traditions, have been instrumental in filling this lacuna and will be extensively discussed in this chapter.

First, however, I turn to the works of Michel Foucault and Gilles Deleuze on power, which have influenced Hardt and Negri as well as critical marketing scholars.
2.3 Power and subject in Foucault

Michel Foucault's writings have been instrumental in analysing and contextualising modes of power. According to his genealogical analysis (1978), the government of societies and populations has been transitioned over the years from a sovereign model of power to models of power that encompass different modalities, such as disciplinary power, pastoral power and, more pertinent to the present study, what he called biopower. His main objective in focusing on the different manifestations of power was to examine subjectification processes, how human beings are reconfigured as subjects, through different forms of power (Foucault, 1982).

Foucault (1978) first focuses on sovereign societies in which power was possessed by specific people (e.g. a king) and exercised unquestionably over those who did not possess power. In feudal societies, the monarch had the power to rule over life and death and imposed his power through public and violent spectacles that instilled fear in people (Martinez, 2011). Therefore, power in sovereign societies was visible, and it was exercised in a top-down manner (Weiskopf & Loacker, 2006), with the subject of sovereign power being constituted as a loyal subject through the threat of death.

While instantiations of sovereign power may still exist, Foucault maintains that following the dissolution of feudal societies, different modes of power emerged as power became discursive (Skålén et al., 2008) and relational (Covaleski et al., 1998). Discourses of power are intrinsically linked to knowledge to such an extent that although Foucault does not strictly equate knowledge to power (Covaleski et al., 1998), he prefers to talk about power/knowledge in order to emphasise their interrelatedness (Skålén et al., 2008). Two main discourses of power/knowledge have been identified in Foucault’s work: “disciplinary power” and “pastoral power”. Though distinct, these discourses are not unrelated; they are indeed intertwined, representing the place where “technologies of discipline” (disciplinary power) meet “technologies of self” (pastoral power), where individuals transform into manageable but also self-managing subjects (Covaleski et al., 1998). Whether they take a disciplinary or pastoral form, it is important to note that discourses of power have a performative character. They do not simply construe the world; they actually construct it (Skålén et al., 2008).
Disciplinary power does not rely on public displays of violence to command the obedience of populations; it is articulated through networks of institutions (Martinez, 2011) and “vast spaces of enclosure” (Deleuze, 1992, p. 3). For Foucault (1977, p. 141), enclosure is the “specification of a place heterogeneous to all others and closed upon itself. It is the protected place of disciplinary monotony”. Institutional enclosures – schools, hospitals, prisons – aim to produce “docile bodies” (p. 138) through disciplinary mechanisms that subject individuals from the “outside in” (Covaleski et al., 1998) and enhance their “calculability” (Clegg, 1998), making them “visible and detectable and thus known objectively” (Skålén et al., 2008, p. 30). To enforce discipline, these enclosures isolate those within their boundaries from those outside (Martinez, 2011). Normalisation processes, through the “penalty of the norm”, are the main expression of disciplinary power, which leads to homogenised attitudes and actions. The “penalty of the norm” has another significant aspect that has to do with the “different”, the “abnormal”, which, through disciplinary power, is not only perceived as something that goes against the norm, but also as something that can and should be changed to become part of the norm (Covaleski et al., 1998). Surveillance is another feature of disciplinary power and normalisation processes and is demonstrated in many different forms: personal, technical, bureaucratic or legal (Clegg, 1998).

The panopticon metaphor is a key element in Foucault’s analysis of disciplinary power and surveillance, which is based on Jeremy Bentham’s architectural design of the panopticon prison model that allowed a small number of individuals, or even a single individual, to constantly view and observe a large number of inmates in an asymmetric manner, as the inmates could not see when or by whom they were being observed. The architectural design, although never fully materialised, was not only supposed to allow guards to monitor the actions of inmates, but also to produce obedient prisoners; the feeling of always being under observation was enough to ensure compliance. Foucault used the panopticon metaphor to describe and explain a number of discursive disciplinary practices – architectural designs, dress codes, timetables and so on – which focus on the meticulous control of the body (Covaleski et al., 1998). Thus, the subject of disciplinary power is a docile yet productive subject.
While disciplinary power works from the “outside in”, pastoral power defines and shapes identities from the “inside out”. The term pastoral evokes feelings, images and practices that are associated with the Christian tradition; however, its function transcends the religious context and penetrates many aspects of the social environment. In organisational settings, the role of the pastor is taken by the manager, while employees constitute his flock of sheep (Covaleski et al., 1998). In contrast to the sovereign notion of power, whereby individuals and collectives submitted to the wills and power of the ruler (king/monarch), pastoral power does not require submission, as it takes the form of guidance and operates through “technologies of the self”, similar to those found in ecclesiastical settings (e.g. confession). The key component of pastoral power is that the individual acquiesces to this form of power, as he believes that it will be beneficial to him. Discourses of pastoral power are based on placing individuals in such a position that they are willing to share their innermost thoughts, and after hearing these thoughts, a manager, or any other “pastor”, directs and guides the “sheep”. Thus, pastoral power individualises, as it is premised on attending to the needs, wills and concerns of each individual (Oksala, 2013). Pastoral power is instrumental in terms of retaining the status quo and reproducing specific value systems, as it has the ability to make people believe in a value system and rewards them accordingly when they act in compliance with it (Skålén et al., 2008). This leads to citizens, workers, patients and even consumers being governed without even realising it. Many modern social and behavioural sciences and practices are constructed in accordance with this pastoral conceptualisation of power, with notable examples being psychoanalysis in the discourse of psychology, the self-assessment test in the managerial discourse and customer-perceived quality measurement techniques in the service marketing discourse (Skålén et al., 2008). Regarding the latter, Skålén (2009) explains that the service quality discourse advises managers to take on pastoral leadership roles, such as coaching, and to guide and lead front-line employees in such a way that they adopt subject positions as active and responsible selves. The increasing interactions between brands and consumers can also be seen under the rubric of pastoral power. Here, technological affordances such as self-tracking, have not only facilitated the interaction between corporations and consumers but also between consumers themselves. Previous
consumer research has analysed the role of consumer interactions and confessions in governing and ultimately controlling consumer behaviour (e.g. Arvidsson, 2006; Bonsu & Darmody, 2008; Zwick et al., 2008). For instance, in their examination of the manifestation of pastoral power and control within online consumer communities, Fyrberg Yngfalk et al. (2014) argue that these interactions and confessions are socially regulative, as they provide individuals with subject positions; even when subjects deviate from the norm, they can reinforce and reproduce the underlying ethos of the consumer community.

In his later work, Foucault (1978) further advanced his analysis of power by developing the notions of biopower/biopolitics and governmentality. Through biopower, he extended the conceptualisation of disciplinary power from one that focused on individuals and their bodies, “an anatomo-politics of the body”, to one that also encapsulates the mechanisms regarding the management of populations, “a biopolitics of the population” (Munro, 2012).

Thus, biopower refers to the “numerous and diverse techniques for achieving the subjugation of bodies and the control of populations” (Foucault, 1978, p. 140) and signifies “new mechanisms and tactics of power focused on life” (Genel, 2006, p. 43). Foucault’s work on biopower, along with subsequent analyses that draw on, criticise and extend the notion, will be further discussed later in this chapter.

Through governmentality, Foucault attempted to further develop and broaden the conceptualisation of pastoral power as a wide range of acts of social control that may – or may not – take place within societal institutions, but can also encompass acts of self-control. Foucault (2007) has further developed the notion of governmentality to examine the “art of government” and how it unfolds in modern societies. He underlines the close connection between forms of power and processes of subjectification and focuses not only on management by the state or other administrative authority but also emphasises issues of self-control, family direction, household management or guidance of the soul and, thus, defines government as the “conduct of conduct” (Lemke, 2002). Foucault uses the first conduct in this phrase to delineate that government is about leading, directing and guiding others but also oneself in a self-regulatory manner. The second conduct refers to the object of government, be it people’s actions, emotions or beliefs. Therefore, with the “conduct of conduct”, Foucault talks about the intentional
guidance, through discursive practices and technologies of control, of people’s actions and behaviours (Skålén et al., 2006). Through his conceptualisation of governmentality, Foucault’s attempt has been to demonstrate how the modern state and the modern independent individual have co-defined and shaped each other’s development (Lemke, 2002). Thus, similar to pastoral power, which entails one form of governmentality, rather than forcing people, through rules and prohibitions, to do things that they do not want to, governmentality promotes particular subject positions that frame actors, actions and ways of perceiving the world (Varman et al., 2012). Governmentality is observed in diverse discourses of modern life such as psychology, sexuality and even marketing, as demonstrated by the plethora of pertinent studies, which will be discussed in this chapter, where power and control are ever-present, albeit not visible or consciously understood (Varman et al., 2012).

2.4. The Deleuzian subject: The dividual
Deleuze (1990) recognised in Foucault’s later work a development towards an early conceptualisation of continuous modes of power, which he called control (Deleuze, 1992). Therefore, Deleuze’s analysis of control mechanisms should not be seen as contesting Foucault’s work, but as supplementing it and bringing it forward to the new digital era (Jones, 2000), where control is not restricted within the confines of institutional boundaries, but spreads throughout the social landscape (Martinez, 2011). In disciplinary societies, control was exercised through closed and discrete environments: the family, the school, the army, the hospital, the prison. However, according to Deleuze (1992, p.4), these institutions are slowly but surely dying and are being replaced by “ultrarapid forms of free flowing control”. While disciplinary environments of enclosure were distinct entities, where one had to start from some beginning – first day of school, army, prison – and reach an end – graduation, complete military service, prison term – control mechanisms are modulations that constantly adapt and allow people to flow from one to another while perpetually exerting control. Control societies exhibit three main and interrelated features that were absent from disciplinary societies: (1) control mechanisms overlap one another with no beginning or end, as control permeates every aspect of our lives without us having to move from one
enclosed system of control to another; (2) information and communication technologies that allow the gathering of real-time information are crucial for the development of such control mechanisms; and (3) individuals are digitised and transformed into fragmented “dividuals” within multiple vast banks of information systems (Martinez, 2011). In accordance with this analysis, self-tracking is an archetype of control that is not restricted within specific institutional boundaries but, through the use of information (tracking) technologies, becomes dispersed throughout society, converting life into data points, while rendering consumers into dividuals.

As the above overview of different modes of power—from sovereign to control—indicates, technologies of power and control mechanisms do not remain stable; they evolve and mutate, enabling new forms of social control (Munro, 2000). In disciplinary societies, the panopticon architectural design was employed to produce obedient subjects merely through the thought of being observed. Disciplinary power was not in the hands of the guard; it emerged from the architectural arrangement itself, which implied that the prisoners were under constant surveillance, turning them into self-obedient beings (Elmer, 2003). In today’s data-greedy world, the traditional panopticon is not enough, thus, it evolves into what De Landa (1991) calls the “Panspectron”: an all-encompassing network of sensors targeting not only small groups of people in confined spaces, but whole populations through antenna farms, spy satellites and cable-traffic intercepts that gather and transmit real-time information, which passes through filters and key-word watch lists. Another difference between the disciplinary panopticon and the controlling Panspectron is that, in the panopticon, all lateral communication between subjects under surveillance was cut off, while control networks allow and encourage communication between people (Munro, 2000). However, what is similar between the panoptic mechanism and digital control mechanisms is that just like the panoptic gaze automates the process of discipline by producing self-disciplined subjects, digital control mechanisms automate the collection of personal information (Elmer, 2003).

Therefore, the subject of societies of control, the dividual, is premised on the accumulation of dispersed information and its conversion and reorganisation based on specific codes (Zwick & Denegri-Knott, 2009). Gane (2012, p. 619)
emphasises that dividuals are “monads defined not by their right to be individual or by their intrinsic worth but by systemic process of coding that differentiate one member of a consumer population from the next”. Thus, the process of dividuation becomes an expression of capitalist accumulation aimed at breaking down life into pieces of information (Zwick & Denegri-Knott, 2009). This is achieved not through traditional disciplinary institutions, but through mobile forms of surveillance that have the ability to monitor, measure, intervene and control “dividuals” in real space and time (Gane, 2012). Self-tracking, the subject of the present thesis, is one example of such a mobile form of surveillance. The accumulated data from these mobile forms of surveillance treat human subjects not as agentic individuals within a population, but as samples from which patterns of consumer behaviour can emerge (Palmås, 2011), i.e. as “dividuals” upon which marketing strategies can be based and to which they can be directed. In that sense, what has been described as the surveillance economy (Andrejevic, 2009) relies heavily on the dividuation of consumers (Cluley & Brown, 2014).

These last two sections provided an analysis of Foucauldian conceptualisations of forms of power, along with a discussion of how Deleuze’s notion of “societies of control” adds to and expands Foucault’s work. The following section presents an overview of marketing and consumer research studies that draw on these analyses.

2.5. The constitution of the consumer subject

A number of marketing and consumer research studies have specifically engaged with Foucauldian analyses of power, focusing on the power relations embedded and reproduced by the marketing discourse (Skålén et al., 2008) and examining the construction of neoliberal consumer subjectivities (Beckett & Nayak, 2008; Shankar et al., 2006; Yngfalk & Fyrberg Yngfalk, 2015; Zwick et al., 2008). Interrelated notions of consumer freedom and choice, consumer emancipation and empowerment though the formation of the responsible consumer subject, who is fostered to engage with marketers as well as to use her creative capacities in value-producing processes, have been some of the focal points of these analyses.

For instance, Becket and Nayak (2008) focus on customer relationship management and draw on the notion of governmentality to explicate how it promotes specific identities that customers are encouraged to acquire. Thus,
consumers are not governed directly by producers; they are expected to govern themselves in accordance with the identities that they identify with. The authors argue that a new marketing mentality arises, that of collaborative marketing, which is premised on the development of relationships between producers and consumers, and leads to the metamorphosis of the consumer from sovereign chooser to active collaborator and the emergence of a new consumer identity, the reflexive consumer, which is characterised by freedom, empowerment and self-expression (Becket & Nayak, 2008). Beckett (2012) further identifies reflexivity not as a mere act of self-expression, but as the very mechanism that enables the governance of the individual. He locates the connecting point of governing and reflexivity “not within the subject, but within the notion of practice” (Beckett, 2012, p. 5). By performing a practice, individuals realise their need for products and services that will allow them to better perform the specific practice (Beckett, 2012).

In similar approaches in the mainstream marketing literature, the popular notion of consumer empowerment has become the target of criticism in various other studies. In their Foucauldian critique of the idea of consumer empowerment, Shankar et al. (2006) argue that marketing works by making people feel empowered about becoming consumers who can navigate themselves through an array of consumption propositions and affordances. Freedom and emancipation thus become synonymous with consumption choice (Shankar et al., 2006). In that respect, neoliberal governmentality posits that consumers become completely empowered only under conditions of perfect competition (Shankar et al., 2006).

Giesler and Veresiu (2014) point out that celebratory approaches to consumer empowerment and to shared responsibility prevalent in neoliberal governmentality often fail to acknowledge the socio-economic disparities that are institutionally inscribed through marketplace mythologies. Bjerrisgaard and Kjeldgaard (2013), in focusing on marketplace mythologies, examine ideological representations of the market, in particular, the myth of the global market. Employing a governmentality approach, they highlight that marketing practices comprise an expression of global governmentality that has performative effect on the conduct of advertising employees, clients and consumers. Giesler and Veresiu (2014) have developed their analysis of consumer
responsibilization, which is focused not on consumer experiences per se, but aims to shed light on the political economy in shaping the responsible consumer subject. They argue that consumer responsibilization is the result of four distinct but interrelated processes: personalisation, authorisation, capabilization and transformation (Giesler & Veresiu, 2014).

Becket (2012) further argues that governing is not limited to the construction of subjects, but also comprises the constitution of norms and identities that subjects are urged to follow and reproduce. Consumer responsibilization may also have a number of unintended consequences on the formed consumer subjects. Yngfalk and Fyrberg Yngfalk’s (2015) empirical study on a commercial weight loss programme demonstrates that the body becomes a site of control, as marketing governmentality transforms individuals into cautious consumers that exhibit increased levels of self-care amidst high levels of anxiety and stress.

In addition, Cova et al. (2011) argue that the increased interaction between firms and consumers, which turns consumers into active participants of production processes and redefines them as partners, is a deliberate form of marketing governmentality that is not only aimed at exploiting the free labour of consumers, but also at minimising the potential risks of undesired consumer behaviour. This is not achieved through any form of coercion or top-down disciplinary mechanisms, but through freedom, albeit of a particular nature that is shaped by “establishing ambiences that program consumer freedom to evolve in ways that permit the harnessing of consumers’ newly liberated, productive capabilities” (p. 223). In that respect, “the disciplining of people as consumers and the liberation or empowerment of people through consumption are, so to speak, two sides of the same coin” (Shankar et al., 2006, p. 1020). In fact, while this form of marketing governance is based on freedom, enhanced participation and the logic of consumer empowerment, the desire of capital to control both production and consumption, as well as producers and consumers, has not vanished; on the contrary, it is exercised through different modes of enhanced surveillance as well as strict regulations pertaining to intellectual and private property (Cova et al., 2011).

While governance stipulates that individuals are encouraged to act rather than forced to comply, their freedom is still confined within a specific terrain that is demarcated by the range of available choices afforded to them (Beckett, 2012). In
that sense, freedom is conditional, as it becomes intertwined with discipline (Hodgson, 2002). Moisander et al. (2010) highlight that marketing governmentality is exhibited, not through coercion, but through a range of available choices, as marketing “is not about forcing people to do something against their will but rather about structuring their possible field of action to generate sales” (p. 3). They identify four main analytical dimensions through which consumer conduct and choice are shaped and governed: visibilities, visual representation and spatial arrangements, knowledge and expertise, techniques and practices of government and identity. Confined within this analytical framework, the freedom that is a constitutive element of this new marketing governmentality does not actually threaten the concerns of capital for control (Zwick et al., 2008). On the contrary, marketing governmentality operates precisely in and through freedom, as “subjects are obliged to be free, to construe their existence as the outcome of choices that they make among a plurality of alternatives” (Rose, 1996, pp. 78-79).

The governmentality of the marketing discourse(s) has also attracted considerable interest from critical scholars (see Skalen at al., 2008) because, as Foucault explains, subjectivity is not an inherent natural essence of our being that exists independently of society; social discourses shape and (re)produce subjects (Shankar et al., 2006). Thus, marketing discourses, like that of consumer empowerment, become powerful techniques of subjectification that manage to govern at a distance and, thus, make the exertion of power less evident and the emergence of forms of resistance less likely (Hodgson, 2002). Not only do marketing discourses treat and prompt individuals to identify themselves first and foremost as consumers, but even more as responsible consumers who can employ their creative capacities and competencies in value creation processes (Cova & Cova, 2009). It is not so much the creation of false needs that is the aim of corporations, but the making of particular subjects of consumption that will engage in everyday practices that are directly associated with specific products or brands (Moisander & Eriksson, 2006). Influenced by governmentality approaches, Skålén et al. (2006) provide a genealogy of customer orientation by examining what and how mainstream marketing discourses attempted to govern during three periods of the marketing tradition – early marketing thought (c. 1900–1960);
marketing management (c. 1950–1985) and service management (c. 1975–present).

Research on the governmentality of prosumption and value co-creation discourses and practices has treated these discourses as neoliberal governmentalities premised on the freedom (in consumption choices and behaviours) of individuals. Skålén et al. (2008, p. 241) found that according to “the service marketing articulation [which highlights value co-creation], marketing is […] definitely characterized by governmentality. Rather than being coerced into doing things that they would not want to do, people are governed in line with their free will”. Zwick et al. (2008, p. 184) elaborate on this point, arguing that co-creation represents a form of modern corporate power that attempts, not to discipline consumers, but to guide consumer freedom towards desired (corporation-friendly) behaviours and choices. These behaviours may lead to specific consumer choices, but more importantly, the process may entail the empowerment of consumers through their active involvement in co-creation practices. Bonsu and Darmody (2008, p. 359), in their study of the social internet platform Second Life (SL), further argue:

…what is construed as consumer empowerment through co-creation may in fact be a strategic device to revitalize the firm’s capitalist zeal and market control. Technologies such as those behind SL… are designed, in part, to save corporate resources through the transfer of responsibility for costly productive activities to players.

Beyond discourses, studies have also examined the role of technological affordances, in particular, technologies pertaining to consumer surveillance, as techniques for governing and shaping consumer subjectivities. Beckett (2012) argues that in order for the fabrication of consumers to happen, first and foremost, consumers need to be made visible through surveillance and then positioned and analysed in relation to the population. In her Foucauldian analysis, Humphreys (2006) engages, not with marketing discourse(s), but with the role of surveillance as a technology of power that is not coercive, but playful, which is even welcomed in shaping consumer agency. For Zwick and Dholakia (2004), databases play a paramount role in the construction of customers as they provide consumers with personalities and identities. Hodgson (2002) argues that it is the increasing shift
from mass-marketing strategies towards more customised and personalised approaches that signifies the link between governmentality and marketing. Further studies have provided a critique of marketing practices in diverse contexts, such as public policy, higher education or the marketisation of genetic material, through the lens of governmentality. Varman et al. (2012) have adopted the notion of neoliberal governmentality to critically examine the failures of bottom-of-the-pyramid marketing initiatives in managing conflicts and competing goals pertaining to poverty alleviation, on one hand, and business profit, on the other. Similarly, Bonsu and Polsa (2011, p. 236) maintain that “corporate adoption of the BoP strategy mimics a neocolonial incursion into heretofore inaccessible markets, by constituting the poor as free, self-governing individuals—modern citizens in the Western liberal sense—toward facilitating market control and exploitation for corporate ends”. Focusing on the higher education sector, Varman et al. (2011) maintain that marketisation processes are exemplified by the promotion of market subjectivities among students, which leads to the dominance of instrumental rationality, the neglect of social concerns and of the development of critical thinking as well as reinforced feelings of exclusion among some students. In examining marketing strategies pertaining to genetic material, Bokek-Cohen (2016) maintains that while power does not take the form of absolute control, the bio-governmentality of consumption always shifts the equilibrium of power relations in favour of marketers as opposed to consumers. Having discussed how the critical marketing and consumer research literature has engaged with Foucauldian concepts and thinking, I now turn to Hardt and Negri’s works to examine the nature of contemporary capitalism, in general, and marketing, in particular. First, I revisit Foucault’s notions of biopower and governmentality, which Hardt and Negri also draw upon.

2.6 The biopolitical nature of contemporary capitalism
While governmentality – as a “genealogy of liberal regimes of government” (Nadesan, 2010, p. 13) – has been influential in the development of critical marketing scholarship in the past two decades, biopower, which can be seen as a more broad “genealogical analysis of the mechanisms of power” (Genel, 2006, p. 60), has not attracted the same level of interest in the field. However, it
comprises of the main analytical tools of the present study, which explores self-tracking through the lens of biopolitical marketing.

The notion of biopolitical marketing is grounded in Foucault’s later work on governmentality and biopower and recent autonomist Marxist analyses of contemporary capitalism (Zwick & Bradshaw, 2016). Pertinent to both these approaches is Hardt and Negri’s (2000, 2004, 2009) notion of biopolitical production, which draws on both Foucault’s notion of biopower and Deleuze’s more explicit articulation of the transition of power regimes from disciplinary to societies of control.

Through the concept of biopower, Foucault highlights the human body as a site of power exertion as well as resistance, both in terms of how people regulate their bodies in their everyday lives and in relation to the monitoring and management of the general population (Lupton, 2016). As he explicitly states, “for capitalist society, it was biopolitics, the biological, the somatic, the corporal that mattered more than anything else” (Foucault, 2000, p. 137). For Foucault, biopower has two distinct poles, one concerned with the anatomo-politics of the human body, which aims to maximise its efficiency, and one that serves as a regulatory control of the body within the mechanisms of life, a biopolitics of the population (Rabinow & Rose, 2006). Sinnerbrink asserts that (2005, p. 240) “the theoretical significance of the concept of biopolitics undoubtedly lies in its synthesis of processes such as the technological manipulation of our biological existence, the management of biological life as a resource, and the administration of human populations as the objects of social and political power relations”. Thus, as power over life, biopower is closely linked to capitalism as it is used to create healthy, productive and docile subjects (Read, 2001).

Various scholars and philosophers have engaged with the notions of biopower and biopolitics, contributing, critiquing and revising Foucault’s original analyses. Notable examples have been the works of Giorgio Agamben, on one hand, and those Hardt and Negri, on the other. I mainly draw upon the insights and analyses of the latter.

While for Foucault biopower is an explicit characteristic (along with discipline) of modernity, Agamben (1998) sees it as a foundational element of Western political history, which can be traced back to the Greek division between zoe...
(biological life) and bios (social existence) (Sinnerbrink, 2005). He maintains that “Western politics is a biopolitics from the very beginning” (Agamben, 1998, p. 117). Agamben’s critical analysis is grounded in his notion of the “bare life”. To elucidate the bare life, he uses the example of Homo sacer, a Roman legal concept that denoted a person “who may be killed and yet not sacrificed” (p. 8), indicating that an existence has been reduced to biological functions, as he has been stripped of all legal or civil rights (Lemke, 2011). For Agamben, since antiquity, the Western political tradition has been based on the separation between the bare life and political existence (Lemke, 2011).

Whereas Agamben’s criticism of Foucault’s conceptualisation of biopower centres on his assertion that biopower has always been a foundational component of Western political history, and therefore not a distinctive characteristic of capitalism, Hardt and Negri take a different approach. They argue that Foucault’s analysis is incomplete, as he does not diagnose that late capitalism engendered a new form of biopolitics that is characterised by the disintegration of the division between the economy and politics, between production and reproduction and between working and non-working life (Lemke, 2011). While Foucault focuses on the external link between biopower and capitalist accumulation – as a requirement in the production and reproduction of labour power – for Hardt and Negri, life and capitalism are much more closely connected, as life itself enters the terrain of valorisation (Read, 2001). Conversely, recent Marxist analyses of the prevalence of immaterial forms of labour provide a pertinent explanation of contemporary biopolitical aspects of power, albeit a partial one, as they focus exclusively on intellectual aspects – knowledge, language, communication – while ignoring corporeal factors (Hardt & Negri, 2000). Drawing on but also critiquing both Foucault’s and Marxist analyses, Hardt and Negri (2000, p. 24) attempt a synthesis of these approaches, which conceptualises biopolitics as a form of power, “expressed as a control that extends throughout the depths of the consciousnesses and bodies of the population—and at the same time across the entirety of social relations”.

Similarly, Morini and Fumagalli (2010) elaborate on Hardt and Negri and stress that while analyses of cognitive capitalism provide compelling interpretations of the transformations of social and productive relations, the exclusive focus on
knowledge fails to address other important aspects like the subsumption of the body in production processes. While, in the past, the division between manual and intellectual labour, has been an emblematic feature of capitalism (Guéry & Deleule, 2014), contemporary capitalism seeks to break down these dichotomies (Morini & Fumagalli, 2010). Thus, according to Morini and Fumagalli, the separation between the body and the mind becomes obsolete, as the body also becomes involved in value productive processes, making its entire existence productive.

For Foucault, biopower pertains to the entanglement of political powers in specific areas of human existence, namely human biology, health and reproduction; however, Hardt and Negri’s interpretation expands the notion of biopower into all spectrums of life, including affects and desire (Read, 2001). In fact, the infusion of power into all facets of human life serves as the basis for the expansion of capitalism (Simons, 2006). Thus, biopower becomes “the power of the creation of life; it is the production of collective subjectivities, sociality and society itself” (Hardt, 1999, p. 98).

2.6.1 Biopolitical production

Following this reading, Hardt and Negri (2000, p. xiii) have gone on to introduce the notion of “biopolitical production”, which refers “to the production of social life itself, in which the economic, the political and the cultural increasingly overlap and invest one another”. Biopolitical production requires and incorporates the entirety of the body’s capabilities, desire, language, affect and style in producing value for capital (Read, 2001). Similarly, Simmons (2006) asserts that biological production encompasses processes of production and reproduction of all forms of social, economic or cultural life. Read (2001) elaborates that biopolitical production should be seen as the generator of subjectivities as well as of things, relations and networks, or better, as productive of being. As Hardt and Negri (2009) explicate, biopolitical production is not about producing commodities (“objects for subjects”), but about producing subjectivities. Lazzarato (2004, p. 187) goes even further to focus on the construction of worlds, claiming that “the enterprise does not create its object (good) but the world within the object exists. And secondly, the enterprise does not create its subjects (workers
and consumers) but the world within which the subject exists”. This assertion represents the basis of the analysis in the fourth paper of the present thesis, which examines the development of personal data markets.

Hardt and Negri (2009) maintain that economic production is increasingly becoming biopolitical, as it is linked to social relations and forms of life, which is exemplified by self-tracking that manages to instantly capture these forms of life and transform them into “digital biocapital” (Lupton, 2014a). Similarly, Fumagalli (2011) maintains that contemporary capitalism has transformed into biocapitalism, as it always targets new areas of human and social life for subsumption and commodification, while life itself becomes value.

For Morini and Fumagalli (2010, p. 235), biocapitalism refers “to a process of accumulation that not only is founded on the exploitation of knowledge but of the entirety of human faculties, from relational-linguistic to affective-sensorial”. They further note that biocapitalism requires and engenders a new form of labour, biolabour, which encapsulates “the ensemble of the vital-cerebral-physical faculties of human beings” (p. 240) and can take the forms of relational labour, cognitive labour, symbolic labour, affective labour and corporeal labour.

Biocapitalism further heralds the demise of the separation between working-time and labour-time, working-place and life-place, production and reproduction (Morini & Fumagalli, 2010). Hardt and Negri (2000) also argue that in the age of biocapitalism, all time is productive time, as biopolitical production is constant and uninterrupted, precisely because it encapsulates all human activity and behaviour. Here lies the difference between industrial and biopolitical production; while the industrial is a production confined in specific production spaces, the biopolitical is a production that permeates and subsumes all aspects of social life (Özgün, 2010).

As biopolitical production encompasses the production of subjectivities, forms of life, relations, affects, communication and networks and, in essence, life itself, capital plays a diminished role in production processes. This is so because it aims to subsume and expropriate value that is, to a large degree, produced externally to it, in many instances, by unpaid consumers. In fact, what makes biopolitical production so attractive is that exploitation can take place with capitalists investing little resources in the production process (Hardt & Negri, 2009).
2.6.2 Biopolitical marketing

This is where biopolitical marketing, the main analytical concept of the present thesis, comes into play in striving to foster and guide consumers' biopolitical production in such a way as to allow capital to maximise economic gains from the appropriation of that production. To achieve this, biopolitical marketing strategies try to:

shift the buyer’s focus away from the physical characteristics of the object for sale (i.e., the stuff of the traditional sales pitch) and instead draw attention toward the symbolic, emotional, communal, and affective potential for facilitating the production of specific forms of life and subjectivities aspired to by the buyers of the product. (Zwick & Ozalp, 2011, p. 236)

As Zwick and Bradshaw (2016, p. 105) argue: “Biopolitical marketing… aims to negate its status as the other of the consumer. The consumer is no longer treated as a target for, but a resource of, marketing…”.

Following Hardt and Negri’s analysis of biopolitical production, Zwick and Bradshaw (2016, p. 20) define biopolitical marketing as “strategies aimed at extracting surplus value from consumer activities, affects, and feelings produced in the autonomous and wild, collective and self-governed spaces of the virtual”.

Thus, social media marketing represents the greatest manifestation of biopolitical marketing. In other words, biopolitical marketing aims to foster and guide the biopolitical production of subjectivities, forms of life, social relations and affects in such a way that firms can benefit from the appropriation of that production. For Hardt and Negri (2009), the moment that the economic focus moves away from the production of commodities to the development of social relations and forms of life is precisely the moment in which capitalist production becomes biopolitical.

In a similar way, marketing becomes biopolitical at the very moment in which it “attempts to valorize and subsume the productive value of self-production, of life itself, under capital” (Zwick & Ozalp, 2011).

Hardt and Negri (2009) argue that the attainment of a central role for biopolitical production in value creation signifies that the division between production and reproduction is becoming increasingly blurred, as there is a shift from the production of material objects towards the development of social relations. As Trott (2007, p. 213) underlines, “living and producing tend to become indistinguishable”. Moreover, what Morini and Fumagalli (2010) call
biocapitalism does not exclude any segment of the population; on the contrary, it relies on the appropriation of every single individual’s (bio)-productive capacity (Hardt & Negri, 2007). What Hardt and Negri call the Empire is premised on the production and reproduction of the prevailing social order through the entanglement of a number of elements that include the economy, culture, media, language as well as affect and knowledge (Read, 2001).

Central to Hardt and Negri’s analysis of biopower and biopolitical production are the concepts of “the common” and “the multitude”. The term multitude denotes a form of network, characterised by openness, diversity and autonomy, in which difference is not feared but celebrated (Rose & Spencer, 2015). The common refers not only to natural resources but, more importantly, to “those results of social production, such as knowledges, languages, codes, information, affects and so on” (Hardt & Negri, 2009, p. viii). Hardt and Negri (p. 173) unequivocally assert that biopolitical production “takes place and can only take place on the terrain of the common”. This can have an empowering and emancipatory function, as the common is developed and produced autonomously, outside the influence and constraints of capital. Conversely, it is precisely this autonomous creativity and productive capacity of the multitude that capital aims to subsume and commodify. For Hardt and Negri (2009), biopolitical exploitation refers to the expropriation of the common by capital. As indicated earlier, as biopolitical production encompasses the production of subjectivities, forms of life, relations, affects, communication, networks and, in essence, life itself, capital has a diminished role in production processes. Thus, as Hardt and Negri assert, capital aims to subsume and expropriate value that is, to a large degree, produced externally to it; in fact, what makes biopolitical production so attractive is that exploitation can take place without the need for the capitalist to get involved in the production process.

Similarly, Zwick and Bradshaw (2016) have identified consumer commons, i.e. consumer communities as the vehicle through which biopolitical marketers strive to resolve a number of contradictions within communicative capitalism. First, communities appear to provide the answer for a restructuring in marketplace relations in line with principles of value co-creation, equality and sharing, making it possible to reconfigure marketing as un-marketing. Second, the community
makes it possible for marketers to exert control over consumers while, at the same
time, empowering consumers by providing a space where their creativity is
couraged and channelled towards profit making. Third, while marketing no
longer controls the production of value, communities are capable of creating value
as they provide an opportunity to appropriate the cultural, technological, social
and affective labour of consumers. The second paper of the thesis empirically
examines how online consumer communities, in conjunction with self-tracking
affordances, enable and empower users to develop the (marketing) spaces that can
enhance their productive creativity towards corporate ends.

Biopolitical marketers strive to fuel the productive ability of individuals to
constantly self-produce – to create, through consumption, opportunities for further
consumption for themselves and for others (Zwick & Ozalp, 2011). Therefore, for
Zwick and Bradshaw (2016), the most representative manifestation of biopolitical
marketing can be found in social media marketing, where biopolitical marketers
need to persuade, control and command, push messages and promote products so
as to create economic surplus—without showing any signs of doing all these
things. In the contemporary era, in which the prevailing discourse highlights
users’ empowerment through participatory media, the subtle role of biopolitical
marketing is directed towards commodifying all communication in such a way
that does not antagonise the communicators (Zwick & Bradshaw, 2016).

According to Zwick and Bradshaw (p. 4), biopolitical marketing “aims to mobilise
and extract value from the production of consumer communication, lifestyles and
subjectivities”. As Zwick and Ozalp (2011) explicate, the lifestyles and
subjectivities desired by biopolitical marketers cannot simply be attained and
consumed like a service; they need to be actively produced by consumers. The
ultimate goal of biopolitical marketing is to sell to consumers the value generated
by consumers themselves through collective production processes that involve
communication, lifestyle choices, social relationships and community building
(Zwick & Ozalp, 2011)—in other words, to sell to consumers the value that is
created in the common, outside the direct influence of marketers. As Arvidsson
(2011, p. 262) indicates:

Value is understood to be derived less from the proprietary resources that a company
can directly command, such as labor, machines or even patents or copyrights and
Thus, biopolitical marketing does not aim to collectively control and command the actions of consumers; on the contrary, it encourages each individual consumer to attain autonomous and voluntary roles in the production of economic value (Zwick & Ozalp, 2011). In line with the new spirit of capitalism (Boltanski & Chiapello, 2005), the new spirit of marketing, biopolitical marketing relies on consumers’ active participation, on their creative capacities and on their autonomic ability; it is precisely this ability that creates value for biocapitalism. Arvidsson and Malossi (2011) stress that the celebratory narrative of consumer emancipation and empowerment that permeates the co-creation discourse overlooks the fact that contemporary capitalism is premised on that exact freedom, as it strives to develop a biopolitical environment where such freedoms can take desired directions. In that respect, the individual becomes responsible for enacting a particular style or behaviour and following a way of life that can generate more value than other forms of life (Zwick & Ozalp, 2011).

2.6.3 The biopolitical prosumption of life
To understand the role of marketing in contemporary capitalism, it is imperative to analyse the way in which capitalism itself has developed and transformed in recent decades. Throughout the years, capital accumulation has shifted from formal to real subsumption of labour and more predominantly, in our times, to the subsumption of immaterial forms of labour, as life itself is subsumed to capital (Fumagalli, 2015). A number of terms have been used in order to highlight this transition of capitalism, including biocapitalism, affective capitalism, communicative capitalism, cognitive capitalism, surveillance capitalism and, more recently, neurocapitalism.
Marketing, a crucial component in the function of capitalism, could not remain unaffected. This is evident in the marketing scholarship that has championed the reconfiguration of the consumer from an operand to an operant resource (Vargo & Lusch, 2004), with recent critical interventions concentrating on the implications of the biopolitical nature of contemporary marketing. Engaging with
this critical marketing literature, this thesis explores how biopolitical forms of marketing lead to the commodification of consumers’ lives through the digital consumption of self-tracking technologies. Drawing on Hardt and Negri’s notion of biopolitical production, I suggest that the aim of contemporary marketing is the biopolitical prosumption of life, to the end that the production of subjectivities, social relations and forms of life are inextricably linked to consumption and the creation of value. This is further analysed through the notions of the “prosumed self” and the “prosuming self” in the first paper of the thesis. The prosumed self-tracking self constitutes an active self-regulating subject that attains the ability to constantly generate the kinds of data that can prove valuable, becoming, in this process, a prosuming self. It is to the appropriation of these data and the exploitation of consumers’ digital labour that biopolitical marketing aspires, as self-tracking users become members of an active “audience commodity”, while their lives are being commodified.

Thus, by examining and analysing the development of biopolitical marketing in relation to a topical, popular consumption phenomenon, the thesis advances, both empirically and theoretically, discussions on the biopolitical nature of contemporary marketing and its implications for the “co-creation economy”. It thus contributes to the critical marketing literature, as it will be further explicated below.

As mentioned in chapter 1, the term “critical marketing” itself can be seen as problematic for several reasons. First, defining scholarship as critical is a tautology in the sense that being critical is “part of the job”, as the role of academics is to critically examine the phenomena that they study (Catterall et al., 2002). Even as educators, especially in the contemporary period when students have unprecedented access to a plethora of information, academics are expected more than anything to foster critical thinking among students. Second, the quite loosely defined critical marketing perspective, which may include anything from Marxist and feminist approaches to studies that question the validity and effectiveness of prevalent marketing concepts and practices, becomes an umbrella for a very broad and probably even contradictory and opposing scholarship that can end up being “another form of marketing scholarship to be put in the service of marketing managers” (Bradshaw & Firtat, 2012, p. 31). Thus, for Bradshaw and
Firat (2012), the term critical marketing should be clearly demarcated and refer only to studies that draw on and engage with the Frankfurt School tradition of “critical theory”.

While concurring with the need for a clearer conceptualisation and positioning of the term critical marketing, I embrace a more open approach that does not deem it necessary to engage only with a specific critical tradition but one that critically examines the role of contemporary marketing within capitalism and offers alternative viewpoints to the mainstream managerial marketing scholarship. Thus, the present study situates itself within the strand of literature that does not have managerial aspirations and aims to contest and question, not the effectiveness, but the political and ideological underpinnings of marketing. It attempts to do so by examining the exploitative dimensions of self-tracking practices, which result in the commodification of consumers’ lives, as well as investigating the marketing strategies that foster the development of a biopolitical environment in which subjectivities and forms of life can flourish while, at the same time, becoming commodified and exploited.

2.7. Summary

The present chapter provided the theoretical grounding of this study. First, it positioned the study within the critical marketing literature. This was followed by a presentation and discussion of Marxist and poststructuralist concepts and theories that have been influential to Hardt and Negri’s analyses of contemporary capitalism. A discussion of these analyses was then offered, and their relevance to the concept of biopolitical marketing was further explicated. The chapter concluded by discussing the relevance of these theoretical analyses to the present study, introducing the term biopolitical prosumption of life and providing an indication of the contribution of the thesis. More concrete and comprehensive discussions of the contribution will be offered in the concluding chapter of the thesis, but first, a detailed review of the self-tracking literature will be provided in the next chapter, followed by an overview of the methodology and a presentation of the four papers comprising the thesis.
3. Literature Review

3.1. Self-Tracking as a Technology of Biopolitical Marketing

The present thesis explores how contemporary marketing, in conjunction with technological affordances, targets and appropriates increasing aspects of consumers’ lives. In particular, it examines the digital consumption practice of self-tracking from a biopolitical marketing perspective in order to advance understanding of the extraction of value from consumers’ lives. The previous chapter presented the theoretical underpinnings of the study, while the present chapter focuses on the empirical phenomenon. It provides a comprehensive review of the emerging academic output on self-tracking from diverse fields, including sociology, media and communications, with a particular focus on critical approaches. Further, it explicates the contribution of the present study to this critical literature as well as to the scant marketing and consumer research literature on self-tracking.

The chapter commences by discussing the emergence of self-tracking as a popular consumption phenomenon and presenting a number of different definitions. A general overview of pertinent critical studies from diverse fields is then offered, followed by a more pertinent analysis of the present study’s engagement with research about subjectification processes relating to self-tracking. To advance beyond a popular understanding of self-tracking as a leisure activity (or practice relating only to leisure activities) and to substantiate the claim that the self-tracking culture expands to many diverse aspects of human existence, the application of self-tracking in specific and significant contexts – namely health care, education and workplace – is discussed. To further support the biopolitical nature, in its expanded Hardt and Negrian conceptualisation, which encompasses social relations, as discussed in the previous chapter, the social dimensions of self-tracking are presented, including an analysis of the Quantified Self community. The chapter concludes with a presentation of the scant empirical research on self-tracking, along with an indication of the contribution of the present empirical investigation.
3.2. The emergence of modern-day self-tracking practices

Long before the emergence and spread of digital self-tracking tools and practices in the twenty-first century, people tracked, measured and tried to modify and optimise their actions and behaviours. Many past medical discoveries were achieved by people who experimented, sometimes with fatal consequences, and tracked their own responses to potential treatments and therapies (Neuringer, 1981). It is known that Benjamin Franklin tracked his daily achievement of thirteen virtues for several decades (Li et al., 2010; Neff & Nafus, 2016). In the past century, a number of conceptual artists devised their own tools and strategies so as to track specific aspects of their lives (Lupton, 2016). However, such ways of tracking one’s own life require ingenuity, skills and resources, dedication, effort and time, making it difficult to be implemented by large segments of the population.

The advent, though, of commercially available self-tracking tools – which not only simplify the tracking process but also provide data results that are easy to comprehend and interpret – has contributed to the widespread adoption of self-tracking practices and made it one of the most popular digital consumption phenomena of recent years.

The emergence of inexpensive tracking tools has led many people to experiment with self-tracking. However, the culture of self-tracking was initiated by dedicated self-trackers, who sometimes even built their own tracking devices and tracked many different aspects of their lives. These committed self-trackers constitute the “Quantified Self” (QS) community, which was initiated and established in California about ten years ago by Gary Wolf and Kevin Kelly, former editors of *Wired* magazine. The QS community has expanded all over the world, with many different local chapters in various countries. These local chapters organise regular meeting for self-tracking enthusiasts, where various members present their self-tracking experiences. Moreover, annual conferences are held in Europe and America. Videos from conferences and local meeting presentations are uploaded in the online platform quantifiedself.com, which serves as the main online community hub for members of the QS community. The QS movement itself will be further analysed later in this chapter.

While the QS community is mainly geared towards devoted self-trackers who sometimes use unconventional approaches and may even build their own tools to
track a large proportion of their lives, commercially available tracking devices allow consumers to engage in self-tracking practices, even without previous experience or the need for specific skills and knowledge, thus contributing to the popularity of self-tracking. In fact, smartphone apps and wearable devices have swamped the market, allowing users to monitor, track, record and quantify every single aspect of their lives and, by doing so, generate huge amounts of data.

Broadly defined, self-tracking can be characterised as any practice that entails the systematic recording of one’s own activities, behaviours and responses (Barta & Neff, 2014). Swan (2009, p. 509) defines quantified self-tracking as “the regular collection of any data that can be measured about the self such as biological, physical, behavioural or environmental information”. According to Lupton (2016, p. 2), self-tracking refers to “practices in which people knowingly and purposively collect information about themselves, which they then review and consider applying to the conduct of their lives” Other terms used for similar practices are self-quantification, lifelogging, personal analytics or personal informatics systems. Li et al. (2010, p. 558) define personal informatics systems “as those that help people collect personally relevant information for the purpose of self-reflection and gaining self-knowledge”. Lifelogging, which refers to continuous practices that aim to capture as many aspects of everyday life as possible, has been delineated as “diverse types of self-tracking that range from health monitoring and the detection of one’s location and presence to the measurement of productivity at work” (Selke, 2016, p. 3). The term personal analytics place the focus on the information generated about oneself, as it “refers to the field of interactions that surrounds tracking various bodily and mental functions, including the analysis, visualization, and distribution of the data, thereby encompassing people’s involvements with measuring devices and data movements” (Ruckenstein & Pantzar, 2015, p. 193). For consistency, the present thesis will use the term self-tracking.

Self-tracking practices are enabled by a number of commercially available mobile apps, smartwatches and wearables devices. The simplicity of use as well as the inexpensiveness of these devices have played an important role in the growing popularity and adoption of self-tracking (Prince, 2014). Gary Wolf, one of the instigators of the QS movement, gives four reasons for the emergence of the self-
tracking phenomenon: first, electronic digital sensors have become smaller, better and easier to use; second, people have the ability to carry with themselves small personal computing devices in the form of smart phones; third, social media have made it possible and a normal practice for users to share aspects about their personal lives; and fourth, the rise of global superintelligence in the form of the cloud has entered our lives (Maturo, 2014).

While these are all valid reasons, this analysis overlooks companies’ aspirations to attract a growing part of the population in self-tracking practices through marketing interventions that focus on the empowering role of self-tracking for individuals, while simultaneously downplaying the fact that companies base their strategies and business models on the appropriation of consumers’ data. More precisely, this point is of particular interest to the present study, as it addresses the main aim and is analysed both empirically and theoretically in the papers comprising the thesis.

Tracking devices allow users to record and generate detailed biometric data that can be used by individual users and may also be shared with others (Lupton, 2013). The sharing of these data with commercial entities, either knowingly or otherwise from the users’ side, is of paramount importance for companies. In popular marketing parlance, this aspect of self-tracking can be seen as a manifestation of co-creation, as it allows for increased interaction between consumers and companies. Here, consumers receive feedback and personalised recommendations based on their tracked activities, while companies get their hands on the user-generate data, which is their aim in the first place. For Nafus (2013, p. 137), the data economy refers to the “everyday circulation of data between, devices, people, and institutions”. It has to do with the uninterrupted flow of data between all actors, thus making these data valuable, something that poses practical problems and raises questions about the feasibility of the development of personal data markets, the subject of the fourth paper of this thesis. Many different aspects of a person’s life can now be subjected to self-tracking, including physical activities, food and other consumption habits, emotional and mental states, sexual behaviour, financial conduct as well as social interactions. Sellen and Whittaker (2010) divide tracking systems into two main categories: total capture systems, which aim to track every aspect of a user’s life, and...
situation-specific capture, which are geared towards providing rich detailed information about specific activities.

As delineated in the introduction, the appropriation and exploitation of consumers’ data is a focal point of the thesis. The present study investigates the datafication of consumers’ lives through self-tracking in relation to contemporary marketing practices. It also examines the emergence of personal data markets as empowering mechanisms against user exploitation. The following section provides an overview of critical studies from various academic fields in relation to the surveillance and privacy aspects pertaining to the development of the self-tracking culture.

3.3. Critical analyses of self-tracking

The culture of self-tracking is closely related to the vision of the internet of things (IoT), which is increasingly entering our daily lives, as we can gather real-time data from and about various inanimate objects that are wirelessly connected to each other. However, Albrecht and Michael (2013) maintain that extending the vision of the IoT from inanimate objects to human beings is a flawed idea for two main reasons: first, it dehumanises people as it reduces them to mere objects; secondly, it endangers the fundamental right to privacy as it leaves people prey to the marketing, governmental and other institutions that wish to exploit their data.

Van Dijk et al. (2015) identify a number of unintended consequences related to self-tracking: excessive self-focus, over-trusting data, behaviour adaptation in line with technological requirements or even in order to “cheat” the technology, excessive pressure bestowed on users to alter their overall behaviour and lifestyle, even when that may be impossible. Moore and Piwek (2015) also examine the potential unintended effects of self-tracking but focus less on the individual user than on the appropriation of user-generated data, which may lead – among other things – to privacy loss, identify theft and invasive marketing practices. Maturo (2014) highlights three main areas of criticism that relate to self-tracking: an over-reliance on technological solutionism, a socially constructed idea of health that leads to healthism and a struggle to live a constant quantified life. It is argued that digital quantification tools assert an authoritative role that corresponds to an ideology of dataism. This ideology celebrates these tools as bearers of objective
quantitative truths about the user (Elias & Gill, 2017). Similarly, Smith and Vonthethoff (2016) underline the addictive potential of data-driven self-knowledge, as the techno-utopian vision that data alone will allow us to better understand and optimise ourselves amplifies an obsessive drive for additional continuous streams of personal data.

Self-tracking is often viewed as an empowering mechanism that enhances consumer autonomy. For instance, Karapanos et al. (2016) claim that activity trackers enhance people’s autonomy as they feel more in control of their exercise behaviours. However, a number of studies question this assertion. Lanzing (2016) argues that the claims for enhancing users’ autonomy are undermined by the fact that self-trackers expose too much information about themselves, even to unknown entities. Owens and Cribb (2017) also question the autonomy-enhancing potential of self-tracking technologies. While self-tracking is usually associated with consumer empowerment and autonomy, measurements and devices tend to cast an authoritative shadow that, instead of allowing users to attain better knowledge about themselves, induce specific behaviours and even engender feelings of shame and guilt for failing to adhere to prescribed lifestyles (Nafus, 2013).

Critical studies have also examined and linked self-tracking to issues pertaining to surveillance and privacy, as self-tracking has been seen as a form of self-surveillance. For Albrecht and Michael (2013), self-tracking and surveillance are two sides of the same coin, but because self-tracking has been promoted as an empowering technology that promises to make people healthier and happier, it has been accepted more easily by people than traditional surveillance technologies. Lupton (2013), in focusing on mHealth tracking technologies, maintains that users engage in voluntary self-surveillance. In fact, self-tracking culture is associated with the emergence and establishment of a “surveillance society”, as surveillance has become ubiquitous in people’s everyday lives (Lupton, 2015). For Whitson (2013), gamification is an important element in the wider population’s acceptance of contentious surveillance technologies like self-tracking. Personalised approaches that are based on the generated data and incorporate gamification elements ensure that normative and disciplinary practices do not appear externally imposed, but internally driven (Sanders, 2017). As Timan and Albrechtslund
(2015) point out, while surveillance becomes playful and participatory, it may end up being compulsory, limiting the options for opting out. Thus, self-tracking can be seen as an effective way to promote the ideals of self-responsibilization. In this respect, self-tracking represents an aspect of what has been termed the “sensor society”. This is characterised by an abundance of interactive networked devices that serve as sensors, a magnitude increase in the volume of sensor-generated data, which is accompanied by the development of data mining techniques and tools that handle and make sense of the data, along with analytical infrastructures that aim to put the sensor-generated data to use (Andrejevic & Burton, 2014).

The other side of surveillance is the loss of privacy. Troiano (2016) identifies three major privacy concerns pertaining to the use of wearable activity trackers: the absence of regulatory protection of personal health information, the ability of third parties to obtain personal data and the risk of hackers accessing personal information. Spann (2015) underlines the need for regulatory control that would safeguard the privacy of self-trackers and protect their personal digital data. Fotopoulou (2014) maintains that users may see the benefit of sharing their data with other users, as it can be helpful for learning purposes; however, they may also be wary about the use of their data by companies and third parties. Similarly, Pickard and Swan (2014) suggest that so long as privacy and anonymity are safeguarded, users are becoming more inclined to share their data for research that could lead to potential medical discoveries. However, there is less support for monetising such sharing processes. Conversely, while users express concern about their personal self-tracked data, especially data pertaining to health and finances, they seem unwilling to pay to safeguard their data (Leibenger, 2016).

The above discussion provided a brief overview of a number of critically inclined studies and identified some of the main scholarly concerns and reservations about the growing popularity of self-tracking. Issues like surveillance and loss of privacy are also of interest to the present thesis and are addressed both conceptually and through empirical investigation. Extending the critical discussion about self-tracking, the following section provides an overview and analysis of primarily Foucauldian-inspired studies that examine the construction of the self-tracking subject.
3.4. Power relations and the self-tracking subject

Several critical studies have analysed power relations in relation to self-tracking. Lupton (2015) reminds us that technologies are never politically neutral and that they are embedded in particular logics and power dynamics. The work of Michel Foucault, which was discussed in the previous chapter, has been particularly inspirational in these analyses. For instance, En and Pöll (2016) maintain that self-tracking is an exemplary site where power is manifested as a regime of truth, which constructs the self-tracking subject as a scientised self that adheres to the objectivity and credibility of metrics. Similarly, Rich and Miah (2017, p. 93) assert that “the production of knowledge about and on people’s bodies through quantified norms can be considered to be part of a biopolitics of populations through which particular subjects are normalized and moralized”. Drawing from the later work of Michel Foucault on the practices and care of the self, Lupton (2014) maintains that self-quantification can be seen as a technology of the self that aims to promote self-responsibility, not through coercion, but through encouragement and active engagement. Like technologies of the self, self-quantification practices strive to achieve self-care, self-management and, ultimately, self-improvement (Lupton, 2015). Lupton further argues that digital technologies foster the transformation of citizenship into a new digitised form of biocitizenship. This is based on the premise of the “socially fit citizen”, who is not only a dedicated self-tracker, but is also eager to share data and engage with other self-trackers in mutually supportive and motivational interactions in online platforms. Drawing from and extending the concept of “biological citizenship” (Rose & Navas, 2004), Lupton (2015) has coined the term “self-tracking citizenship” to capture practices and techniques relating to the phenomenon of self-tracking for the government of the self. Similarly, Ajana (2017) claims that self-tracking practices can be seen as a manifestation of the “biopolitics of the self”, which makes the body susceptible to management and monitoring interventions that follow neoliberal norms. As Jethani (2015, p. 16) states, “in becoming mainstream, self-tracking stands to significantly alter definitions of what is, and is of, the human body”. Whitson (2013) also argues that quantification is an integral element in the quest for the government and care of the self, which is facilitated by incorporating play and gamifying the tracking experience.
As Cederström and Spicer (2015) underline, self-tracking should not be seen as a benign attempt to locate and try to fix flaws or weaknesses; instead, it is about reconstructing oneself according to specific market requirements. Lupton (2012) maintains that health-tracking tools produce a particular subject that is, on one end, the object of surveillance himself/herself and, on the other, becomes a responsible citizen who is required to construct a healthy self and prove so through constant and continuous measurement. For McEwen (2017), self-tracking practices involve digital reproduction processes as they serve three main functions: they enable the production of content and data that can be commodified; they facilitate the production and reproduction of digital labour; and they foster the development of pertinent subjectivities that are consonant with the imperatives of contemporary capitalism. According to Ruckenstein and Pantzar (2015), the ethos of personal analytics is that individuals attain control over their lives. In fact, the QS can be seen as a model embodiment of entrepreneurial individualism that is driven by a constant quest for optimisation and aims to govern the self on the basis of the most detailed and precise information (En & Pöll, 2016).

Moreover, Lupton (2015) has examined issues pertaining to the valorisation of the quantified body under the rubric of neoliberalism and the promotion of an ethos of self-responsibility that it promotes. According to Till (2014), self-tracked activities become a form of digital labour that generates surplus value for firms that appropriate the generated data. In a similar vein, Lupton (2015) has written about the exploited prosumption of the labour associated with self-tracking. This has prompted Moore and Robinson (2015) to assert that not sharing – or even generating – data becomes a political act in itself. Thus, a holistic investigation of self-tracking and personal analytics, which strives to explore how these technologies shape subjectivities and produce or reproduce power relations, needs to examine both the emotional appeal and the resistance and opposition geared towards them (Ruckenstein & Pantzar, 2015).

Also focusing on the valorised body, Fotopoulou (2016) maintains that the quantified body becomes embedded in the capitalist production machine and highlights the gender inequalities that are perpetuated and exasperated through self-tracking. In fact, the need to further examine and understand the gendered aspects of self-tracking has been stressed in the literature (e.g. Wissinger, 2017).
For instance, Elias and Gill (2017, p. 8) contend that the logic of quantification permeates contemporary beauty culture and “subjects the female body to increasingly ‘scientific’ and quantified forms of surveillance and judgment”. While acknowledging that self-tracking devices can facilitate self-knowledge and self-care, Sanders (2017) argues that these devices also expand the reach of biometric surveillance and extend processes of normalisation pertaining to femininity and the body by enabling and amplifying the entanglement of neoliberal-era biopower with post-feminist patriarchal power. By analysing pregnancy apps, Thomas and Lupton (2016) argue that these technologies reproduce heteronormative gender stereotypes pertaining to sexuality, parenthood and consumption. Similarly, En and Pöll (2016) highlight the reproduction of gender norms, advocating for the queering of self-tracking, which would challenge specific practices, information and broad social norms and would open up possibilities for anti-normative practices and understandings of self-tracking. For instance, this could take the form of disassociating self-tracking from discourses of productivity, efficiency and competitiveness, engaging in it, not as a means to something else, but for the enjoyment that it may provide. Sanders (2017) recognises that complete withdrawal from digital self-tracking is nigh to impossible; thus, resistance should be conceived more in terms of subversion and transgression.

The present study engages with this literature as it analyses the power relations pertaining to self-tracking, focusing on the appropriation and exploitation of consumers’ digital labour, and examines the construction of consumers’ subjectivities. Moving beyond a Foucauldian analysis, which has been the case with the majority of pertinent critical studies, I engage with the works of Hardt and Negri to analyse the biopolitical production and appropriation of life itself. In that respect, the body/mind, the physical/digital and even the individual/social dichotomies are considered superficial and irreverent. In employing Hardt and Negri, I maintain that the aim of contemporary marketing is to treat human existence, in its entirety, as a resource.
3.5. Different contexts: Self-tracking in practice

This section examines the implications of the introduction and application of self-tracking practices in health care, education and the workplace. Examining self-tracking in these contexts provides a more comprehensive understanding of the scope of self-tracking as going beyond a mere leisure activity. Self-tracking spreads into diverse facets of personal and social life, underscoring the power and political dimensions that it encompasses and substantiating a focal point of the present study that self-tracking comprises a biopolitical technology that has the potential to target and extract value from many aspects of consumers’ lives.

3.5.1. Health care

The healthcare sector has been strongly linked to practices of self-tracking. Lupton (2013) states that tracking devices offer an unprecedented opportunity to gather health-related data, both on the individual level and regarding the targeted population of healthcare and public health professionals. Majmudar et al. (2015) maintain that although the healthcare sector has been slow at embracing self-tracking technologies, these technologies may transform the way health care is practiced by empowering patients, redefining population medicine and paving the way for personalised medicine. This rhetoric is not dissimilar to the dominant marketing co-creation discourse that celebrates consumers’ active involvement and empowerment. Similar to the co-creation discourse, it also downplays negative outcomes pertaining to the appropriation and exploitation of consumer labour (which, in this case, is exemplified, but not limited, by the appropriation of data) as well as the imposition of specific models of subjectivities (healthy, self-reliant, productive) that may not be attainable for many people – thus magnifying social inequalities.

Critical research has considered some of these negative outcomes. Fotopoulou and O’Riordan (2016) caution that this form of user “empowerment” is attuned to prevalent neoliberal policies that aim to reduce public spending in health care. Self-tracking practices are associated with prevalent neoliberal healthcare models that, on one hand, decrease the public provision of healthcare services and facilitate the development of a private health sector shaped by market forces; on the other hand, these models bestow responsibility onto individuals who are
increasingly compelled to be in charge of their own health and well-being (Ajana, 2017). Pantzar and Ruckenstein (2015) underline how self-tracking technologies, alongside the ideologies that support them, are shaped by markets and contribute to the creation of new markets. Similarly, Millington (2014) argues that activity tracking tools rationalise neoliberal logics, but at the same time, the dominance of neoliberal discourses pertaining to health and fitness rationalises the emergence and proliferation of these tools. Fotopoulou and O’Riordan (2016) further argue that self-tracking, coupled with the use of social networking technologies, takes (part of) the burden of responsibility that was traditionally bestowed on the medical professional and places it into the tracking technology itself and the individual user.

Examining health surveillance practices—that is “any tracking or monitoring, whether systematic or not, of health-related information”—French and Smith (2013, p. 383) maintain that although self-tracking may help users adopt healthier lifestyles and minimise health risks, it also produces a detailed recorded history of their lives that puts them at risk of being sanctioned by insurance companies and employers that may be willing to punish and penalise unproductive behaviours. In fact, health and home and car insurance firms are devising programmes that offer lower premiums to consumers who generate and share data that can prove that they are less likely to claim insurance compensation (Newman, 2014). For instance, new corporate wellness programmes devised by insurance companies expect employees to share their self-tracked data, providing financial rewards (or penalties) for specific activities and goal achievements. These corporate wellness programmes are becoming increasingly popular among employers, as they can lead to significant reductions in healthcare costs (Fitzhugh, 2013; Miller, 2012; Olson, 2014; Zamosky, 2014) because of perceived positive impacts on employees’ health and well-being (Giddens et al., 2017). Gilmore (2015) states that the use of self-tracking technologies as part of increasingly popular corporate wellness programmes aims to guarantee the cost-efficiency of workers’ bodies. Thus, the increasing popularity of health-related self-tracking tools may have a profound healthcare impact, though not necessarily a positive one, as it challenges established ethics of healthcare provision, while the economic and power balance shift in favour of organisations that can collect and store personal health data (Rich
Even the health benefits from using these devices are questioned, as Owens and Cribb (2017) maintain than rather than providing substantive opportunities for better health, self-tracking technologies may, in fact, contribute to increased anxiety and stigma while at the same time reproducing health inequalities.

While the actual health benefits from the use of self-tracking may be questioned, the biopolitical nature of health-related self-tracking technologies is less contested. As the above analysis indicates, self-tracking promotes specific subjectivities of healthy, productive and self-reliant consumers of health services, which correspond to the marketization of healthcare services. This development is analysed in the first paper of the thesis, where the notions of the “prosuming self” and, more importantly, of the “prosumed self” are introduced and explicated. It is further discussed in the fourth paper, delineating how marketing strategies and incentives are used to attract increasing amounts of consumer data, principally health- and fitness-related data, through an empowering discourse that follows the dominant marketing co-creation discourse.

3.5.2. Education

The educational sector has also been examined as a potential terrain where self-tracking may be applied. Eynon (2015) acknowledges that there are numerous possibilities and potentials for the use of self-tracking practices in educational settings, but argues that a number of issues, including legal and ethical issues pertaining to individuals’ data, need to be considered in order for self-tracking to have any meaningful educational effect. Becker (2014) also identifies privacy issues as one of the main reasons why self-tracking has not yet entered the domain of education, but argues that these issues could be tackled as users are already willing to expose and share aspects of their lives for data mining purposes, as demonstrated by the massive downloads of activity-tracking apps. Williamson (2014), upon examining the use of self-tracking tools in physical education, is more critical. He asserts that “self-quantification represents a new algorithmically mediated pedagogic technique for governing and ordering the body” (p. 8). He (2017) further maintains that the introduction of self-tracking tools in physical education aims to engender “biodigital beings” who, at the same time, are willing
to be “socially fit biocitizens” and who are able to conform their behaviours and bodies to acceptable norms, principles and values about health and fitness. Thus, self-tracking becomes a form of biopedagogy that incorporates “disciplinary and regulatory strategies that enable the governing of bodies in the name of health and life” (Wright, 2009, p. 14). In fact, the use of self-tracking tools in the educational context has been associated with the emergence and rise of “surveillance schools” (Hope, 2015). Lupton and Williamson (2017) caution about the increasing datafication of children’s lives through either self-monitoring practices or monitoring by others and question whether adequate safeguarding measures are in place to protect children’s rights. Thus, the construction of subjectivities is also underlined in the critical academic literature and examines the role of self-tracking in educational settings.

3.5.3. Workplace
Tracking and monitoring are only one (the initial) step of self-tracking. Klauser and Abrechtslund (2014) maintain that recording people’s activities into data renders their own lives into objects that have to be scrutinised and transformed. Self-tracking and self-quantification treat all human activities as performances that can be monitored, tracked, measured and optimised. As such, it is not strange that self-tracking has an increasing presence in the workplace (Mathur et al., 2015). Moore and Robinson (2015) explicate that in today’s highly competitive working environment, which is characterised by increased insecurity and precarious working relations, employees are increasingly being asked to measure their own productivity and well-being with the ultimate aim of reaching optimal levels on both these categories. This ultimately becomes a subjectification process, as workers become entrepreneurial subjects that perpetually push themselves to attain higher levels of performance (Moore & Robinson, 2015). Lupton (2014) argues that the workplace has been the primary place of what she calls “pushed” self-tracking, as employees are offered financial and other incentives in order to use self-tracking tools to raise their productivity and contribute to the team spirit. Through the use of self-tracking and self-quantification methods, workers are not only guided to reach these optimal levels of performativity, they are also able to show and prove, with concrete data
measurements, the attainment of their – imposed – goals. However, as Moore and Robinson (2015) point out, while applying self-quantification techniques in the workplace may raise levels of productivity and even well-being, as a form of Taylorism (Maturo, 2014), it may also raise additional demands on workers, increase their workloads and displace accountability, while also rationalising all these new burdens onto workers. Thus, the (pushed or imposed) use of self-tracking practices in the workplace can be seen as “part of an emerging form of neo-Taylorism, which subordinates workers’ bodies to neoliberal control” (Moore & Robinson 2015, p. 8). It is thus argued that the QS, which is constructed by automatic processes that follow pre-determined models, becomes an alienated self, whose experiences lose their qualitative and subjective character (Buongiorno, 2017). For Morozov (2013), this represents a “Taylorism within”; while it shapes people based on the same pre-established standards, it also fosters a sense of uniqueness and exceptionalism. In other words, this crusade of sameness (Tiqqun, 2001) is driven by a discourse of individuality and singularity. Conversely, O’Neil (2016) argues that the contemporary quantification of the workplace should not be seen so much as a form of Taylorism, but more as a form of soft domination that aims to reconfigure and fine-tune workers’ physiological and social rhythms in line with organisational norms and customs.

The higher education sector has wholeheartedly embraced the ethos of self-tracking and self-quantification, as academics have been pushed to reconfigure themselves as quantified academic selves through the ubiquitousness of metrics and ranking systems and the increasing popularity of specialised online platforms that gamify and quantify scholarly outputs (Hammarfelt et al., 2015). Similar to critical analyses about the role and impact of self-tracking in health and education settings, studies focusing on the workplace link self-tracking to subjectification processes that aim to produce subjects that are aligned with market-based values of performativity and productivity.

The previous sections attempted to contextualise self-tracking and examine its function in significant life settings. In this respect, the analysis substantiates the claim that self-tracking is not a benign leisurely activity and that it can play a substantial role and impact in increasing aspects of people’s lives. The following section attempts to further examine self-tracking as a biopolitical marketing
technology. As explicated in the previous chapter, for Hardt and Negri (2000, 2004), biopower and biopolitical production are not limited to biological dimensions of human existence; they also encapsulate traits such as feelings and social relations. The following section goes on to examine the social dimension of self-tracking.

3.6. Self-tracking: Individual endeavour or social game

While the term self-tracking is suggestive of an individualistic endeavour, the social aspect of self-tracking should not be underestimated, as manifested by the popularity of the QS community. Thus, a presentation of studies relating to the QS community will open up the discussion about the social dimension of self-tracking, followed by an analysis of the social implications of self-tracking among regular users.

The overall aim of the QS movement has been to translate anything that can be measured regarding human bodies and minds into data (Prince, 2014). It has been suggested that positivism forms the crux of the philosophy of the QS movement, as an enormous trust is bestowed on data (Maturo, 2014). However, Ruckenstein (2014) argues that while the QS movement may appear to be just about self-optimisation, it is within this community of obsessed self-trackers that questions about the meaning and value of such practices arise. Based on their study of the manner in which the QS is presented in the magazine Wired, Ruckenstein and Pantzar (2017, p.1) offer an alternative definition of the QS, which encapsulates the diverse understandings and experiences of users, as the QS turns into “a knowledge system that remains flexible in its aims and can be used as a resource for epistemological inquiry and in the formation of alternative paradigms”. For Barta and Neff (2015), the QS community represents a case of social capital, whereby the cohesion of the community is strong because it is based on a shared interest in self-tracking. Bode and Kristensen (2015) also highlight the social dimension of self-quantification, which, according to their study, goes beyond the mere act of social sharing; for dedicated members of the QS community, the social aspect of self-tracking has more to do with deconstructing and reshaping the goals and practices of self-tracking. Nafus and Sherman (2014), while acknowledging that the QS movement appeals to businesses that are most eager to gather and
utilise aggregated data, argue that it also promotes diversity and allows for alternative interpretations of data analytics. This is so because it gathers people who develop their own understanding of generated data, which does not usually conform to institutionalised perceptions and beliefs. However, as En and Pöll (2016) note, while the QS does not necessarily adhere to established norms and expert guidelines, it fails to contest and escape broader cultural conceptions pertaining, among other things, to age, gender and body image.

Ruckenstein and Pantzar (2017) identify four main interrelated themes – transparency, optimisation, feedback loop and biohacking – that are prevalent in the QS. These themes constitute its core components, promote a dataist ethos and contribute to the formation of a new numerical self. Choe et al. (2014), in analysing videos posted on the QS online platform, found that although a great number of tracking devices are commercially available, members of the QS community tend to build their own tracking tools, mainly because they want to use a single tool to track and explore data, which is not usually possible with commercial self-tracking devices. Second, they do so because they want to use tools that allow them to self-experiment. However, the study uncovered a number of problems that self-quantifiers face in their tracking endeavours: first, users tend to track too many things; second, they do not include triggers and contexts in their tracking; and finally, there is often a lack of scientific rigour (Choe et al., 2014).

Beyond the QS community, the social, communicative and collective aspects among regular users of self-tracking have also been scrutinised by a number of studies (e.g. Belliger & Krieger, 2016; Sharon & Zandbergen, 2016; Smith & Vonthethoff, 2016). Lupton (2014b, p.1) maintains that “self-tracking is a profoundly social practice, both in terms of the enculturated meanings with which it is invested and the social encounters and social institutions that are part of the self-tracking phenomenon”. She adds that by looking at the individual user, there is always a social dimension to the reasons that he/she has decided to track his/her life and the meanings that he/she bestows onto the practice of self-tracking (Lupton, 2014b). Lomborg and Frandsen (2015) suggest that self-tracking should be conceptualised as a communicative phenomenon relating to three different but interrelated dimensions: communication with the system, communication with the self and communication with various social networks of peers. Van Dijk and
IJsselsteijn (2016) place the importance on interpersonal communication relating to self-tracking and identify three main characteristics of that communication: communication as information, communication for support and motivation and communication for self-presentation. A study by Stragier et al. (2015) on self-tracking users’ motivations to share their tracking activities demonstrated that intrinsic motivation (altruism, information-sharing and self-monitoring), rather than extrinsic motivation (goal commitment, social support and connecting to others), guide users to engage with social media platforms and share their data. Lupton (2015) argues that many fitness activities have become social activities, as users increasingly self-track and quantify these activities. Through the dissemination of self-tracked data in online communities and the engagement and active interaction between users about activities that strive to provide motivation to each other, fitness becomes a social practice (Lupton, 2014). She underlines that self-trackers usually turn to social media platforms (especially Facebook) to share their data, interact with each other, exchange ideas and become active members of specialised communities of like-minded users (Lupton, 2015). Klauser and Albrechtslund (2014) maintain that the full spectrum of self-tracking usually includes both the socialisation and gamification of the tracked experience. Through interaction with other self-trackers in online platforms, users try to gain a deeper understanding of self-quantification and, more specifically, aim to develop more comprehensive ways of engaging and interpreting their own collected data (Lupton, 2015). However, while Bode and Kristensen (2015) have understood self-tracking as a socially configured practice, they place emphasis, not so much on the actual social sharing, but on the affordances in terms of altering, tweaking, moulding and transforming practices that do not conform to prescribed goals and intentions. Thus, while self-tracking may seem as a highly personal, individualist and even narcissistic endeavour, in reality, it is deeply embedded in cultural norms and lifestyles and is tightly connected to social encounters and social institutions (Lupton, 2014). It is the social relations within the specific cultural context of self-quantification, along with an array of discourses relating to technology, selfhood and the body, that provide meaning to the practice of self-tracking (Lupton, 2014).
To highlight the social dimension and the communicative aspects of self-tracking, Sharon and Zandbergen (2016) maintain that instead of focusing on the individual calculable and optimised QS subject, it is more pertinent to talk about the development of quantifying selves that constantly negotiate meaning and understanding through interaction with self-tracking tools, the everyday environment and other self-trackers. Similarly, Belliger and Krieger (2016) argue that the quantification of the self in not just a personal endeavour; it goes beyond the individual self and relates to both the environment and the community. Undeniably, self-tracking tools promote an individualised model of self-care, though this is of a particular form that can be characterised as networked individualism (Millington, 2014).

In addition to actual digital recording devices, Lupton (2013) highlights the role of Web 2.0 apps and other social media tools that also play a significant role in the emerging culture of self-tracking. Whitson (2013) adds the element of gamification as another important component of self-tracking, while Maturo (2014) underlines the role of gamification in the ethos of self-tracking as users receive congratulatory messages for specific tracked behaviours and activities. Gamification has been defined as the “use of game design elements in non-game contexts” (Deterding et al., 2011, p. 1). It thus relies on “encouraging playful subjectivities so that users voluntarily expose their personal information, which is then used to drive behavioural change” (Whitson, 2013, p. 163). In the context of service marketing, gamification has been defined as “a process of enhancing a service with affordances for gameful experiences in order to support user’s overall value creation” (Huotari & Hamari, 2012, p. 19). Critical scholars have maintained that the crux of gamification is to infuse real-life situations with the logic of games in order to make those situations more appealing (Cederström & Spicer, 2015). Moving beyond the pleasurable factor of gamification by directing focus towards the productive labour that it generates, gamification can then be perceived as promoting a neo-liberal entrepreneurial self that is rendered eager to improve in line with market-based norms and standards (Till, 2014).

Closely related to the gamification of the self-tracking experience is the establishment of various kinds of competitions among users, which is a common practice in most self-tracking systems. However competitions are not universally
acknowledged as an acceptable practice among self-trackers and may have the opposite of the intended effect, which is to increase user engagement and participation in self-tracking. Ranck (2014) reports that some users feel that competitions infantilise self-tracking and, therefore, are unwilling to take part in programmes that utilise competitions for attracting additional users. Similarly, Copelton (2010), in her study on the use of pedometer technology in a fitness walking club for elderly people, found that the study participants perceived that even the use of the pedometers added a competitive spirit to what was initially a social activity, which was deemed unacceptable. However, in some self-tracking systems, competition among users is so prominent and such an integral part of the whole self-tracking experience that even unethical and dishonest practices (“cheating”) are frowned upon by the community (Smith, 2015).

The above discussion demonstrates that self-tracking is a profoundly social phenomenon, as it is argued that social relations among users not only enhance users’ motivation to engage in self-tracking activities, but also, the very meanings and understandings that derive from self-tracking are socially constructed and negotiated. In this respect, it can be inferred that self-tracking does not only foster specific subjectivities, but in line with a biopolitical conceptualisation, it engenders collective subjectivities and social life (Hardt, 1999). The present study contributes to this discussion in a multitude of ways, the first of which is an examination of self-tracking as a biopolitical marketing technology, with significant social implications. The second way is by focusing on the importance of the produced social capital and investigating how it is mobilised through specific marketing interventions that aim to enhance social relations and ties among users. Finally, it contributes by providing empirical insights on users’ perceptions of self-tracking devices and on the social dimension of the self-tracking experience.

3.7. The emerging empirical literature on self-tracking

The final section of the present chapter focuses on studies that have gone beyond theoretical analyses of self-tracking to include empirical investigations. First, it clarifies that the academic literature has thus far failed to provide an adequate investigation of self-tracking as a consumption phenomenon. Thereafter, the
limited but developing extant empirical research is presented and discussed. Finally, the section underlines the contribution of the present study.

Self-tracking was first associated with the QS movement, which attracts dedicated and passionate users who engage in a variety of tracking practices. Research was initially geared towards these early adopters of self-tracking. As the popularity of self-tracking increased and has become an everyday practice for many people worldwide, studies aimed at uncovering the more mundane aspects of self-tracking have emerged. For instance, Didžiokaitė et al. (2017) focused on what they call everyday trackers of a commercial calorie counting tool, who were not members of any tracking community. While research has shown that committed self-quantifiers try to find creative ways of experimenting with both self-tracking tools and their bodies in order to attain an exceptional understanding that will allow them to instigate long-term changes, everyday trackers are content with accepting the results and information they get from the app and make minor short-term adjustments in their behaviour (Didžiokaitė et al., 2017). The need to attain a better understanding of the prevalence of personal digital data in everyday life has prompted Pink et al. (2017) to introduce the concept of “mundane data”, which serves as an analytical tool to study and dissect how life impacts, and is impacted by, the infusion of an endless flow of personal data. Conversely, Pantzar and Ruckenstein (2017) have proposed the concept of “situated objectivity” as an analytical tool that underlines that the entanglement of personal data in people’s lives is an eclectic rather than a systematic tool that gathers and decodes past experiences and cultural knowledge or norms and transforms life accordingly. Still, there is a dearth of pertinent empirical research. As Pantzar and Ruckenstein (2015) underline, there are still few empirical studies of the actual practices of self-tracking. Similarly, while Sharon and Zandbergen (2016) acknowledge that public and private institutions benefit from the appropriation of user-generated data, they stress that more attention needs to be placed on the value that users themselves derive from engaging in self-tracking practices. Lyall and Robarts (2017) further underline that there is still a dearth of empirical investigations of how users subjectively experience self-tracking. In addition, self-tracking technologies are seen to provide substantial health benefits to individual users and, consequently, to society in general. However, there are no empirical studies to
actually substantiate this claim (Nelson, 2016). Sharon (2017) identifies two opposing camps in connection with self-tracking: fervent enthusiasts highlight its transformative potential, which can pave the way for participatory and personalised health care; and staunch critics raise ethical concerns and underline the disciplining and disempowering dimensions of self-tracking. Sharon further notes the need for additional empirical research, as both sides make bold claims that are mostly of a theoretical nature and are not substantiated through empirical examination. Further, Rich and Miah (2017) call for further empirical research on how geographical, familial, socioeconomic and cultural factors enhance or inhibit the use of mobile health technologies.

In the last couple of years, however, a few empirical studies have surfaced, providing insights on consumers’ behaviour and attitudes towards self-tracking. For instance, Canhoto and Arp’s (2016) empirical study of users of health and fitness wearable devices uncovered a discrepancy between the factors leading to the adoption of these devices and the factors influencing their sustained use. Becker et al. (2017) provide further understanding regarding sustained use, as their study suggests that perceived benefit, perceived privacy and perceived deficiency are the three main determinants of the continuous use of self-tracking tools. Similarly, Pfeiffer et al. (2016) suggest that the main drivers for the intended use of wearable self-tracking devices are perceived usefulness, perceived enjoyment, social pressure, trust, personal innovativeness and perceived support for well-being. However, Rapp and Cena (2016) found that people with no prior self-tracking experience express different sentiments about self-tracking than seasoned users, as they perceive it to be a burdensome activity with questionable beneficial outcomes. Nelson et al. (2016), however, support the claim that self-tracking tools have profound health empowering capabilities.

Ruckenstein and Pantzar (2015) maintain that technologies, like self-tracking, may attract people’s interest and become part of their lives, but that they may also fail to excite people in getting them to engage with the technological offerings. In their study of users of a popular self-tracking tool, Goodyear et al. (2017) found that while tracking steps, calories burned and engagement with other users increased people’s physical activities, the established daily targets also engendered negative feelings and resistance among users. Correspondingly,
Etkin’s (2016) experimental study demonstrates that while self-tracking may have a positive effect on enhancing users’ efforts and performance regarding the tracked activity, it also has a negative effect in terms of the enjoyment that users derive, as it turns the activity into work.

Sharon and Zandbergen’s (2016) ethnographic study suggests that self-trackers are erroneously perceived as mere data fetishists, as they engage in data gathering practices for a number of reasons that go beyond a blind trust in the power of data; for instance, they use self-tracking as a practice of mindfulness, as a means to resist social norms and as a communicative and narrative device.

Pettinico and Milne (2017) suggest that the introduction of quantification has a significant impact on enhancing users’ motivation. In fact, consumers have variously explained what motivates them to track their activities, including natural curiosity, a genuine interest in data, discovery of new tools, receiving suggestions from other users and specific events that trigger an interest in experimenting with self-tracking (Li et al., 2010). Other identified reasons for using self-tracking devices are the establishment of a routine, the satisfaction of users’ curiosity, the perception that self-tracking devices are useful and the hope that self-tracking as a practice may provide various benefits to users (Lazar et al., 2015). The technology itself uses motivational tools as users are encouraged through targeted messages to achieve their goals, with the self-tracking device attaining the role of a personal trainer (Fotopoulou & O’Riordan, 2016).

Conversely, lack of time, inadequate motivation, disorganised visualisations, difficulty analysing data and sparse or disintegrated data across multiple platforms are some of the barriers identified as inhibiting engagement in self-tracking practices (Choe et al., 2014; Li et al., 2010). A report on the use of wearable self-tracking devices shows that while initial adoption is contingent on a number of different criteria, including aesthetic reasons, comfort, quality, integratability, compatibility and overall utility, long-term engagement with these devices is linked to habit formation, goal reinforcement and social motivations (Ledger & McCaffrey, 2014). In fact, while many people nowadays are motivated to engage in self-tracking and start using such devices, they abandon these devices and stop tracking their activities only after a brief period. Previous studies have found that users tend to stop using self-tracking devices because they do not fit with their
conceptions of themselves; the produced data is not deemed useful; or the maintenance of such devices has proved problematic and burdensome (Lazar et al., 2015). Etkin’s (2016) study indicates that there may be some unintended negative consequences of self-tracking. For instance, while self-quantification may increase the level of the tracked activity, it can also reduce the level of enjoyment derived from that activity, thus weakening users’ intrinsic motivation, which can eventually lessen the interest in continuing to perform the activity in the future.

While the empirical literature on self-tracking is constantly growing, it is still in its nascent stages. Theoretically-driven studies have critically analysed self-tracking, but existing empirical studies have mainly adopted descriptive and exploratory approaches. Consumer research studies have also been predominantly concerned with identifying motivations and breakdowns in the self-tracking experience, with the intention of providing practical recommendations to ameliorate deficiencies and improve the self-tracking experience. The present study attempts to provide a bridge between the theoretical critical studies and the empirical investigations. In particular, it empirically explores marketing interventions aimed at producing specific subjectivities that would enhance the value of the self-tracking experience and system. In addition, it empirically explores the attitudes of active self-tracking users of different devices and practices in relation to a number of issues that have been identified in the literature and discussed in the present chapter (motivational aspect, level of familiarity, fun factor, social dimension and the generated data). Thus, it adds to the critical approaches to self-tracking, which remain on a theoretical level, as well as to the scant and predominantly prescriptive marketing and consumer research studies on this phenomenon. These contributions will be further outlined in the final chapter of the thesis.

### 3.8. Summary

The present chapter presented a review of the self-tracking literature, with a particular focus on critical approaches. An overview of the development of self-tracking as a popular consumption phenomenon was provided, and several applications of self-tracking practices were discussed. Previous studies on the
subjectification processes pertaining to self-tracking were presented, and the social dimensions of the phenomenon were explicated. Studies analysing self-tracking through the lens of biopower were also presented. This analysis supports the argument of the present thesis that self-tracking can be seen as a biopolitical technology that targets different and diverse facets of life. Advancing this argument, the present study treats self-tracking as a biopolitical marketing technology aimed at appropriating value from human existence, as indicated by the main aim of the thesis and delineated in the papers therein. In addition, the limited empirical literature on self-tracking was presented, and a number of issues requiring further empirical investigation were discussed. A number of these issues are addressed in this study by means of an empirical investigation with active users of self-tracking devices. The outcomes of the empirical and theoretical investigations of the study are further outlined and detailed in the final chapter of the thesis.

The previous chapter discussed the theoretical foundations of the present thesis, while the present chapter provided a comprehensive discussion of the academic literature on self-tracking. The following chapter will outline, explicate and defend the methodological approach of the study.
4. Methodology

4.1 Introduction
Self-tracking is a novel phenomenon that has become increasingly popular in the past few years. As more and more consumers engage in self-tracking practices, it is natural that it has attracted academic interest, as a number of studies on self-tracking have emerged in recent years (see chapter 3 for a review of the self-tracking literature). However, marketing and consumer research has provided limited insight on this popular phenomenon. In addition, the existing literature has been primarily theoretical, and it is only recently that empirical research has begun to emerge (Pantzar & Ruckenstein, 2015; Sharon, 2017). This, of course, can be justified by the fact that self-tracking is a recent phenomenon, the use of which has increased substantially only in the past few years, and that academic studies, especially empirical in nature, require time investments in order to first be conducted and then published. This suggests that there is a need for significantly more studies that would provide substantial insight into self-tracking as a consumption practice and phenomenon. For new phenomena that have not been adequately studied, exploratory studies are deemed suitable, as they can provide novel and useful insights (Bryman & Bell, 2011). Consequently, the dearth of prior empirical and marketing/consumer research literature on self-tracking has lead me to adopt an exploratory approach in the present thesis, which follows a critical interpretivist perspective.

Exploratory and interpretive studies are usually linked to qualitative approaches, which is also the case with the present thesis. In particular, two empirical studies were conducted and are presented in two individual papers (papers II and III). The first study is based on observational netnography, while the second draws on interview data from users of self-tracking devices. The data collection and analysis processes pertaining to both of these studies are also detailed in the current chapter. Finally, the chapter concludes by analysing and defending the trustworthiness of the studies as well as with a discussion of ethical considerations. First, however, I commence by introducing the ontological underpinnings of the thesis by engaging with the works of Hardt and Negri.
4.2. Towards an ontology of (consumer) production

Over the last few decades, much has been written in the marketing literature, and beyond, about the active involvement of consumers in value-producing processes. Combining the words production and consumption, Toffler (1980) introduced the term prosumption in 1980 to highlight that consumers would increasingly engage in producing activities in the future. Without using the term, Marx sees prosumption through an ontological lens, as for him, production is always consumption and vice versa (Marx, 1993). The present thesis is driven by the aim to explore consumers’ involvement in value-creation processes, which goes beyond the mere mobilisation of skills and knowledge, which has been the focus of most previous marketing studies, both critical and managerial. In other words, it explores how consumers’ lives become entangled in the production of value through consumption activities. As outlined in chapter 2, the present study draws heavily on Hardt and Negri’s work, particularly their analysis of biopolitical production. The authors make clear that they deal “with Empire in terms of a critique of what is and what exists and thus in ontological terms” (2000, p. 353). As the present study is heavily influenced by their work, it also engages with their ontological assumptions. The ontological dimensions of biopolitical production are explored and explicated in the subsequent section.

Studying a phenomenon is dependent on the ontological and epistemological perspectives of the researcher, as social research cannot be separated from the ontological and epistemological assumptions of researchers (Burrell & Morgan, 1979). Broadly speaking, ontology refers to assumptions about the nature of reality and being, while epistemology pertains to the nature of knowledge. Helfrich (2012, p. 62) explicates that ontology “denotes the study of being and refers to the fundamental constitution of things”. Ontology is the basis upon which arguments are developed, and thus, ontologies are posited and not proven (Rasch, 2012).

As Lukács (1974, p. 24) asserts “the introduction of ontology in no way simplifies problems, but on the contrary provides a scientific and philosophical basis for understanding processes in their complexity and hence their rationality”. The various approaches to social sciences can be differentiated on the basis of their ontological, epistemological and methodological standpoints (Della Porta &
Keating, 2008). However, Alvesson and Sköldberg (2000) give primacy to ontological and epistemological aspects, as for them, good research is premised not on the methods used but on the ontology and epistemology that shape them. Despite its significance for the Marxist tradition, ontology has been an issue of debate, contestation and a target of ideology critique (Gruffydd-Jones, 2012; Murphy, 2001). To a large extent, this can be attributed to Marx’s famous Eleventh Thesis on Feuerbach—purporting that “philosophers have only interpreted the world in various ways; the point is to change it”—which has been understood as a negation of ontology because it does little more than provide a theoretical reasoning regarding dominant social forces (Murphy, 2001). Another, ontological, reading that is consistent with Marx’s historical analysis is that reality is not something static; it is something that evolves through social and historical processes. The principles of this analysis lie in the fact that the “economy”, in any given society or era, is historically specific and contingent on the social relations and material conditions that shape the structuring of social life (Gruffydd-Jones, 2012).

Historical materialism, while central to Marx’s oeuvre, was more clearly outlined in ontological terms by Engels (1901, p. 65):

> the materialist conception of history starts from the proposition that the production of the means to support human life and, next to production, the exchange of things produced, is the basis of all social structure; that in every society that has appeared in history, the manner in which wealth is distributed and society divided into classes or orders is dependent upon what is produced, how it is produced, and how the products are exchanged.

Adhering to the materialist conception of history, Lukács, who attempted to develop a more concrete “Marxist ontology”, went against the traditional ontological understanding of a fixed reality and foregrounded the need for an ontology of historical change (Murphy, 2001). For Hardt and Negri, ontology also does not “refer to any fixed essence of the world or of being, but to the process by which the world and being are continually produced by activities and practices” (Read, 2001, p. 28). This ontological perspective also draws parallels with Foucault’s (1997b, p. 319) “critical ontology of ourselves” that must be considered.
not as a theory, a doctrine, nor even as a permanent body of knowledge that is accumulating; it must be conceived as an attitude, an ethos, a philosophical life in which the critique of what we are is at one and the same time the historical analysis of the limits imposed on us and an experiment with the possibility of going beyond them.

Examining more closely some of their ontological perceptions, Hardt and Negri (2000), in order to highlight the potential of biopolitical production in foregrounding an ontology of production, draw on, critique and synthesise previous theorisations of biopolitics (e.g. Foucault; Deleuze & Guattari). Thus, for Hardt and Negri, the term production does not have a narrow economic sense, nor is it used to describe only the production of things; it attains an ontological meaning as it becomes biopolitical, shaping subjectivities and social relations, and is constitutive of the world (Read, 2001). Thus, “biopolitical production is a matter of ontology in that it constantly creates a new social being, a new human nature” (Hardt & Negri, 2004, p. 348). Consequently, biopolitical production, which is central to the analysis of the present thesis, is for Hardt and Negri an ontological construct, as it is what produces subjects, relations and the fabric of the world. In addition, the productive force in this ontology of production is the multitude (Hardt & Negri, 2000).

Drawing on these ontological claims, the premise of the study is that it is the exploitation of the consumer multitude, not of individual consumers, that generates value for companies. The extraction and appropriation of value, the focus of the present thesis, are made possible only through the development of lifestyles and subjectivities, which can only be constructed collectively by the consumer multitude. In addition, the skills and knowledge of individual consumers have negligible value, as what is at stake is the “general intellect” of the consumer multitude. Similarly, it is the data generated by the consumer multitude that can prove valuable, not of individual users. Thus, as explicated in paper IV, the idea of personal data markets is fundamentally flawed.

Murphy (2001) further notes that Hardt and Negri forged a materialist ontology that goes against the ontological division between the body and mind (and, thus, defies the privilege of the body over the mind), but is premised on the equal treatment of the corporeal and the intellectual. This is also the ontological premise
of the present study, which rejects the division of mind and body and explores how consumers’ whole lives become embroiled in value creation. Hardt and Negri’s ontology of production “reveals the way in which the world is continually made and remade by the bodies and desires of the many, thus exposing the way in which the world can be made otherwise” (Read, 2001, p. 30). In this respect, it also signifies an alternative route towards an “ontology of the possible” (Hardt & Negri, 2000, p. 368). Contrary to these optimistic ontological assumptions, however, the present study posits that the ontology of the present is one wherein the totality of life is subsumed to capital. This is underlined in the thesis through the notion of the biopolitical prosumption of life, which is further explicated in the final chapter.

Thus, an ontology of consumer production is premised on the inseparability of the body and the mind and on the tenet that value lies with the consumer multitude and not with individual consumers.

4.3. Critical interpretive research

The present study adopts a critical interpretive perspective. This approach, which is analysed in this section, is consistent with the ontological position outlined above, as it focuses on and challenges established power structures and relations.

4.3.1 Interpretive consumer research

According to Holbrook’s (1987, p. 131) concise but clear account, consumer research refers to studies that focus on “all aspects of consummation (including its breakdowns)”. Consumer research can be divided into positivistic and interpretive traditions, with the former referring to a “scientific” way, which is associated with quantifiable results that can be validated; the latter, however, speaks to experiential and cultural approaches that are usually linked to qualitative research methods (Fitchett & Davies, 2013). Traditionally, the positivist side has dominated, almost exclusively, the field of marketing in academic research. However, in recent decades, an interpretative turn has taken place, as an interpretative marketing and consumer research tradition has slowly developed (Beckmann & Elliott, 2001).
The basic premise of interpretivism is that reality is not something objective that simply exists out there; it is socially constructed and is based on interpretations of reality that are informed by people’s values and understandings of the world (Fisher, 2004). Put differently, while positivism holds that there is a reality and, more importantly, that it is the researcher’s role to capture and grasp it, interpretivism maintains that objective reality is an elusive thing that can never be captured as we can only get to know things through their representations (Denzin & Lincoln, 2000). To understand phenomena, interpretative research attempts to explore how people explain their own behaviour and the meanings they ascribe to the external world, as the onus is not on establishing relationships between variables but on comprehending human actions and nature and the complexities of societies and cultures (Della Porta & Keating, 2008). Thus, the purpose of interpretative research is not to measure, predict or classify the studied population, but to seek an in-depth understanding of people’s experiences in relation to specific aspects of their lives (Josselson, 2013).

For this reason, researchers who try to conduct interpretative studies usually focus on people’s accounts of phenomena and the processes that lead them to make sense of these phenomena (Fisher, 2004). Deep understanding, which is the ultimately goal of interpretive studies, requires a close involvement with the studied phenomenon (Fisher, 2004), which usually entails the adoption of a multi-method approach (Bahl & Milne, 2006). Another significant dimension of interpretative research is that of reflexivity, which denotes that a researcher needs to have a perception of his or her own values and thinking processes in order to be able to understand how other people see, experience, make sense of and communicate things (Fisher, 2004). However, it should be noted that while interpretive research can provide a valid alternative to the dominant positivist paradigm, it can also be seen as critically weak, as it does little to extend the horizon of possibility and challenge the status quo (Bettany & Woodruffe-Burton, 2009).

This line of critique can also be directed towards interpretive marketing and consumer research, which often fails (or does not intend) to examine, address and challenge societal norms and structures. In fact, while interpretive research has grown significant in both size and stature, critical research, a sub-stream of
interpretive marketing and consumer research, remains less developed and recognised.

4.3.2. Critical consumer research

Critical social research focuses on uncovering social processes that have been overlooked, with a clear aim of changing them (Fisher, 2004). Murray and Ozanne (2006, p. 50) demarcate the difference between critical and traditional research methods, noting that critical approaches seek to “make social actors aware of domination or oppressive social structures”. They further posit that critical theory examines forms of domination that are produced and reproduced in everyday life and may emanate from social hierarchies or external exploitation, may emerge from internalised norms and values and, finally, may be the product of superstition, cynicism or fear (Murray & Ozanne, 2006).

Alvesson and Deetz (2000) maintain that there are two separate but interlinked streams upon which critical research methods are developed. One is the theoretical grounding in critical theory and postmodernism, which are both, albeit from different angles, aimed at questioning traditional social orders and prevailing ideologies, practices, discourses and institutions. In accordance, the present thesis engages with Marxist thought, on one hand, and postmodernist thinking, on the other (mainly that of Foucault), prevalent traditions in the works of Hardt and Negri. For Alvesson and Deetz (2000), the other foundational dimension of critical research pertains to the interpretive qualitative paradigm, which focuses on the micro-practices of everyday life. In line with this, this study examines, through an interpretive lens and qualitative methods, a consumption phenomenon that not only becomes integrated into consumers’ lives, but is directed towards and targets a whole range of their everyday activities.

Thus, by engaging with critical theories and interpretive methods, the present study attempts to examine the social, economic and political dimensions of self-tracking. In this respect, the present thesis also responds to Askegaard and Linnet’s (2011) calls for consumer studies that epistemologically go beyond a mere interpretive reading of consumers’ lived experiences and take into consideration “the context of context”. Thus, they advocate for an epistemology that “explicitly connects the structuring of macro-social explanatory frameworks
with the phenomenology of lived experiences, thereby inscribing the micro-social context accounted for by the consumer in a larger socio-historical context based on the researcher’s theoretical insights” (p. 381). As indicated in the present chapter, as well as throughout the thesis, the present study adopts a similar approach, as it explores the forces that shape consumption experiences and behaviour pertaining to self-tracking and examines the corresponding socio-economic implications.

It should be underlined, though, that the study is driven neither by a Luddite nor a technologically deterministic approach. The purpose was not to attack practices of self-tracking per se, but to critically examine the development, promotion and social construction of a commercially-inspired self-tracking culture. Similarities to this approach can be found in the critique of the development of the internet and its role in the expansion and domination of digital capitalism. While the advent of the internet was supposed to herald the dawn of a new era that would emancipate and empower individuals, limit the power of corporations, strengthen democratic processes and minimise inequalities and exploitation, it has failed to deliver these outcomes, as the commercial development of the internet has been guided by the logic of capital accumulation (Foster & McChesney, 2011). Self-tracking culture has been driven by a similar logic of capital accumulation through the appropriation of value from increasing aspects of consumers’ lives.

4.4. Qualitative research methods

As mentioned earlier, interpretative and critical approaches are almost always linked to qualitative research methods, which is also the case for this thesis. As Denzin and Lincoln (2000, p. 3) explain:

"Qualitative research is a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that make the world visible. These practices transform the world. They turn the world into a series of representations, including field notes, interviews, conversations, photographs, recordings and memos to the self."

Qualitative research is strongly linked with a reflexive approach to the research process (Flick 1998). Reflexivity entails a critical and ethical stance towards all
aspects of the research process (Joy et al., 2007). For Alvesson and Sköldberg (2000), reflexive research is premised on two main features: careful interpretation and reflection. Careful interpretation is paramount, as the whole process of data collection, analysis and presentation cannot be performed or separated from the researcher’s interpretation. Reflection pertains to the understanding that the research process is not only dependent on the researcher but that it must also consider the research community, society in general, account for intellectual and cultural traditions and pay attention to the importance of the language and narrative employed in a given research context. Reflexive researchers need to be aware of the political and ideological nature of research, as social phenomena do not emerge exogenously to political and ethical environments; thus, social research is bound to either support and reproduce social conditions or question and challenge them (Alvesson & Sköldberg, 2000). As explicated throughout the thesis, this study reflects on the role that the broader socio-economic environment plays in the increasing popularity of self-tracking and examines how the self-tracking culture supports and reproduces dominant social norms and practices. The role of reflexivity in the collection and analysis of data for this thesis is discussed in the next section.

4.5. Data collection and analysis

Having outlined the chosen methodology of the present thesis and provided a discussion on the nature of critical interpretive qualitative consumer research, I shall now focus on the research methods employed in the study. Two of the papers that comprise the thesis are conceptual, while two are empirical. In this section, I outline the collection and analysis of the data with respect to the empirical papers (papers II and III). Paper II is based on an observational netnographic study of online platforms pertaining to a specific self-tracking system (Nike +), while paper III draws on interviews with users of different self-tracking tools. First, I focus on the netnographic study.

4.5.1. Observational netnography

In the past two decades, the emergence and popularity of digital environments have prompted the development of digital research methods geared towards these
novel forms of consumer interaction and communication. The term netnography, introduced in the late 1990s by Robert Kozinets, has been widely adopted and refers to consumer research that employs ethnographic methods and techniques adapted for the digital milieu. In the same way that traditional ethnographic studies explore the culture of groups of people in their physical environment, netnography focuses on online groupings of people known as online communities. For Kozinets (2010), netnography proper is characterised by the immersion of the researcher in the digital environment, the online community and the associated culture that s/he wishes to study, through an active engagement with the members of that community.

Regarding the other form of netnography, which has been termed observational netnography, the researcher assumes a much more reserved and “behind the scenes” role. In observational netnography, researchers do not engage with the members of the online community, neither do they reveal their identity, thus remaining present but detached from the community and its interactions (Kozinets, 2006). Observational netnography may limit the opportunities to experience embedded cultural understandings (Kozinets, 2010). Nevertheless, considering the critical approach of the study and, more importantly, the fact that the primary focus was not on exploring the cultural meanings of self-tracking practices per se, but on examining the marketing structures and strategies that facilitate the development of these practices, observational netnography was considered more appropriate than participant netnography.

**PAPER II: “Made to run”: Biopolitical marketing and the making of the self-quantified runner**

The overall purpose of the present thesis was to explore how increasing aspects of consumers’ lives are targeted and appropriated for value-creation purposes by focusing on a popular consumption phenomenon, that of self-tracking. Self-tracking presents a pertinent empirical context, as it is premised on monitoring, capturing and ultimately valorising human activities. To examine, from a biopolitical marketing perspective, how self-tracking leads to the valorisation of life, it was deemed necessary to study the marketing strategies that foster the
development of pertinent subjectivities and the forms of life that allow and promote this valorisation. To that end, one of the most popular and comprehensive self-tracking systems was chosen as the empirical setting, that of Nike+, which is comprised of several self-tracking apps and devices (Nike+ Running, Nike+ Training Centre, Nike+ Move, Nike+ Sportwatch, Nike+ FuelBand), online platforms and social media networks as well as local running clubs located around the world.

For the purposes of this study, I employed an observational netnographic approach, as I collected data from Nike+’s Facebook groups and Twitter accounts and hashtags for a period of one year (2014). The popularity of online platforms and communities make them a pertinent context for understanding the development of contemporary markets and for investigating how companies develop novel marketing strategies that are pertinent to the digital era (Catterall & Maclaran, 2002; Harrison & Kjellberg, 2006; Rokka, 2010). The analysis of the collected Nike+ data was driven by the aim of exploring how marketing strategies intervene to foster consumer subjectivities and associated lifestyles.

The analysis of the data was iterative in terms of its collection, and it allowed for themes and patterns to be identified and further explored. This enabled me to identify the main marketing interventions employed in relation to self-tracking at Nike+ and to explore how they concomitantly foster the development of subjectivities and lifestyles, addressing the aim of the study. In examining users’ responses to marketing interventions, three main categories were identified as fundamental marketing dimensions comprising the overall marketing strategy at Nike+: the promotion of competition, the gamification of the self-tracking experience and the reinforcement of social interactions.

4.5.2 Interviews

The second empirical study of the thesis, which is presented in paper III, comprised interviews with users of self-tracking devices. Interviewing is one of the most commonly used qualitative methods in academic research. They are an effective method to obtaining data that will enable researchers to gain a comprehensive understanding of the studied phenomenon (Josselson, 2013). They allow the researcher to consider a number of aspects, such as language and cultural
background, that standardised survey instruments cannot take into account (Keats, 2000).

Open-ended interviews are appropriate for interpretative studies, as they provide the researcher with rich data. More importantly, they allow and encourage research participants to “tell their story” freely, as the researcher’s role is not to guide the respondent towards a specific direction by suggesting possible answers (Keats, 2000).

**PAPER III: The quantification paradox: Exploring consumers’ attitudes towards self-tracking**

While the increasing popularity of self-tracking has attracted the interest of academic research in recent years, there is a continuing dearth of empirical studies, as the majority of academic scholarship has thus far tended to be conceptual (Makkonen et al., 2016). Empirical research has hitherto mainly focused on specific aspects pertaining to self-tracking, such as health care (Makkonen et al., 2016), on early adopters and highly involved users from the self-quantified community (e.g. Bode & Kristensen, 2015) or have explored the reasons why users abandon self-tracking tools (e.g. Clawson et al., 2015; Epstein et al 2016; Lazar et al., 2015). Another stream of empirical research either adopted an experimental approach, as participants were asked to use self-tracking devices in order to test their reactions (e.g. Etkin, 2016), or examined the potential use of – fictitious – self-tracking tools for specific behavioural change purposes (e.g. Ploderer et al., 2012).

On the contrary, empirical research on active users of popular commercially available tools has been limited. For example, Canhoto and Arp (2016) conducted a focus group study involving young fitness enthusiasts who were using health and fitness self-tracking tools. The study focused specifically on the factors that influence adoption and sustained use of such devices. Thus, the general attitudes of self-tracking users towards tracking tools and practices have not been adequately investigated. The study presented in this paper aimed to remedy this lack of scholarly output and explored users’ attitudes towards self-tracking technologies. In line with the overall approach of the thesis, this study also had an
exploratory character; thus, a qualitative approach was deemed most suitable because, as Proctor (2000) explains, qualitative methods offer the researcher the opportunity to explore people's attitudes, feelings and motivations. Zikmund (1997) attests that exploratory studies are suitable for understanding a phenomenon, for identifying alternatives paths and for discovering new ideas. While pilot studies are usually associated with quantitative methods, even when conducting interviews, it is advisable to undertake a pilot study with a few respondents in order to better prepare both the format of the interviews and the researcher himself/herself (Keats, 2000). Prior to recruiting and interviewing users, I conducted a test interview with one of my supervisors. This was deemed suitable and useful, as the supervisor, apart from extensive experience conducting qualitative research, also has experience with self-tracking tools and was able to provide valuable feedback to me in order to better prepare for the interviews with the research participants.

The research participants were recruited through various means. Flyers and posters were printed and placed in various suitable places in the local area. The study was also advertised with targeted posts in appropriate local groups in social media. Once the first participants were recruited and the interviews were started, snowballing was used to recruit additional participants. In social research, snowballing refers to the practice of attracting research participants from earlier participants. The researcher makes initial contact with some members of a population and then asks them to introduce him/her to other members with similar characteristics (Saunders et al., 2006). This was considered pertinent and useful for the present study, as according to the literature, self-tracking has emerged as a social activity and that users engage with other users of self-tracking devices. Thus, at the end of the interviews the informants were asked whether they could identify and refer other users of self-tracking devices who could potentially be interested in participating in the study. In total, twenty semi-structured interviews were conducted with experienced self-trackers in Sweden. Semi-structured interviews are widely used in qualitative inquires, as it is considered that respondents are more likely to freely express their thoughts, experiences, viewpoints, emotions or attitudes in an open discussion than in a questionnaire or even in interviews with a standardised format (Flick, 1998). In the semi-structured
interviews, a set of some central questions and themes were developed in advanced, however, instead of strictly following a predetermined script or a specific order of questions/themes, the interviewer attended to the interviewees' responses and tried to guide the discussion accordingly in order to probe for in-depth reflections (Hesse-Biber & Levy, 2005). Thus, flexibility is an important feature of semi-structured interviews, as it allows the interviewer to obtain insights on issues that he/she may not have considered beforehand (Grix, 2010).

Ten men and ten women participated in the study, all of whom received a cinema voucher for their participation. To qualify for the study, informants had to have substantial experience with self-tracking, irrespective of the activity (or activities) or the self-tracking tools used. Most of the respondents had more than two years of self-tracking experience. In addition, with one exception, they used self-tracking to track more than one aspect of their lives. As expected, the vast majority of the informants (18 out of 20) had used activity trackers to monitor different fitness activities, with running being the most common self-tracked activity (13 informants). Besides fitness activities, the informants had also used self-tracking tools to monitor sleep, work, time, personal finances, food intake and menstrual cycle.

Table 1. Overview of the interviews conducted for the study

<table>
<thead>
<tr>
<th>Informant</th>
<th>Self-tracking experience</th>
<th>Activities tracked</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lucas</td>
<td>3 years</td>
<td>Steps, Weight, Cycling, Canoeing, Work, Sleep, Food, Location</td>
</tr>
<tr>
<td>2. Elsa</td>
<td>2 years</td>
<td>Running, Weight-lifting, Roller-skating, Sleep</td>
</tr>
<tr>
<td>3. Oscar</td>
<td>6 years</td>
<td>Cycling, Skiing, Running, Sleep, Food, Steps</td>
</tr>
<tr>
<td>4. Liam</td>
<td>3 years</td>
<td>Running, Weight-Lifting, Skiing, Swimming</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>5. Maja</td>
<td>2 years</td>
<td>Kayaking, Fitness activities</td>
</tr>
<tr>
<td>6. Lilly</td>
<td>1 year</td>
<td>Personal finances, Menstrual cycle</td>
</tr>
<tr>
<td>7. Julia</td>
<td>On and off for years</td>
<td>Running, Steps</td>
</tr>
<tr>
<td>8. Hugo</td>
<td>2.5 years</td>
<td>Running, Steps,</td>
</tr>
<tr>
<td>9. Charlie</td>
<td>6 years</td>
<td>Pulse, Cycling,</td>
</tr>
<tr>
<td>10. Linnea</td>
<td>8 years</td>
<td>Finances, Sleep</td>
</tr>
<tr>
<td>11. Ella</td>
<td>5 months</td>
<td>Steps, Fitness activities, Pulse, Sleep</td>
</tr>
<tr>
<td>12. Axel</td>
<td>5 years</td>
<td>Fitness activities, Running, Floorball</td>
</tr>
<tr>
<td>13. Elliot</td>
<td>2 years</td>
<td>Walking, Running, Cycling, Fitness activities</td>
</tr>
<tr>
<td>14. Leo</td>
<td>1 year</td>
<td>Steps, Fitness activities</td>
</tr>
<tr>
<td>15. Klara</td>
<td>10 years</td>
<td>Pulse, Running, Cycling, Walking</td>
</tr>
<tr>
<td>16. Filip</td>
<td>1.5 years</td>
<td>Running</td>
</tr>
<tr>
<td>17. Freja</td>
<td>5 years</td>
<td>Running, Fitness activities, Sleep</td>
</tr>
<tr>
<td>18. Alva</td>
<td>2 years</td>
<td>Running, Sleep, Food</td>
</tr>
<tr>
<td>19. Isabelle</td>
<td>2-3 years</td>
<td>Running, Cycling, Walking, Fitness activities, Time</td>
</tr>
<tr>
<td>20. Alfred</td>
<td>3.5 years</td>
<td>Running, Walking, Cycling</td>
</tr>
</tbody>
</table>

All interviews were conducted face to face, the first twelve of which were conducted from late April to mid-June 2015, while the remainder took place between mid-August and mid-November 2015. The interviews were conducted in English and were audio recorded and transcribed verbatim. While the interviewees were not native English speakers, their command of the language was very good.
However, some minor changes and corrections were deemed necessary, without altering the meaning of the responses, for the benefit of the reader and for publication purposes.

The analysis of the findings was iterative during the course of the study and allowed for emerging themes to be discussed in subsequent interviews. Repeated revisiting of the data is fundamental for reflexive iteration, as it allows for insights and themes to emerge and enables the refinement of the focus of the study (Srivastava & Hopwood, 2009). For Spiggle (1994, p. 495), iteration “involves moving through data collection and analysis in such a way that preceding operations shape subsequent ones”. Thus, data collection and data analysis are not performed at different stages, and the researcher does not begin the analysis of the data following the completion of the data collection; the analysis of the data is performed during the data collection process, influencing and guiding that process. As Srivastava and Hopwood (2009) attest, in qualitative data analysis, iteration should not be performed mechanically in a repetitive fashion; it should be a reflexive process that would strive to develop insights, understandings and meanings. They further note that while not mechanical, the process of analysing qualitative data should be systematic and demands competence and caution in handling and interpreting the empirical material. Spiggle (1994) maintains that iteration should be a playful and creative task that mobilises the researcher’s intuition and subjective judgement and even allows for serendipitous discoveries to emerge; for this reason, it is difficult, if not counterproductive, to offer specific guidelines.

Through the initial analysis of the first round of reviews, ambivalence was identified as a common thread in the informants’ responses to self-tracking, and preliminary themes relating to the informants’ ambivalent attitudes were recognised. Subsequent interviews corroborated this observation and allowed further development of the emergent themes as well as the re-shaping of the ambivalent themes presented in the findings.

4.6. Trustworthiness

While in quantitative and positivistic studies, more generally, research quality is evaluated through specific established and accepted criteria such as validity and
reliability, assessing what constitutes good interpretive qualitative research is not a straightforward process. In fact, the relevance and suitability of validity and reliability in qualitative studies are contested (Bryman & Bell, 2011). It is more common to discuss the trustworthiness of qualitative studies, although this term is also contested.

For Lincoln and Guba (1985), trustworthiness includes four basic criteria: credibility, transferability, dependability and confirmability. However, the degree to which such criteria actually provide an alternative approach to the positivist paradigm can be questioned. For instance, Lincoln and Guba’s criteria correspond with criteria established in quantitative studies (Shenton, 2004). Thus, some scholars have actually questioned the model of developing and establishing specific criteria and norms for assessing research quality (Schwandt, 1996).

Less radical interventions, while acknowledging potential problems regarding the establishment of criteria for qualitative studies, still find this model useful, but propose the introduction of broader and more flexible criteria, such as key markers of quality, including: (i) worthy topic, (ii) rich rigor, (iii) sincerity, (iv) credibility, (v) resonance, (vi) significant contribution, (vii) ethics and (viii) meaningful coherence (Tracy, 2010). I shall explain below how the present study addresses this set of criteria.

As explicated throughout the thesis, self-tracking is a relatively new and increasingly popular consumption phenomenon, making it worthy of academic investigation. The rigor of the study was supported by the strong theoretical grounding (detailed in chapter 2), the comprehensive literature review (detailed in chapter 3) and the different empirical contexts and data sources (investigation of online platforms, face-to-face interviews). The sincerity of the research can be defended by the transparency of the research process, which is outlined in the current chapter. The credibility of the research findings was accomplished through the use of research methods that were appropriate for an exploratory study and a systemic data analysis. The resonance of the study was attested by engaging with studies and research from different fields, making the study interesting for various audiences and relevant to many readers. This was further demonstrated by the fact that the papers that comprise the thesis have been presented in various academic conferences and diverse audiences from different fields (marketing, sociology,
media and communications, political theory). In addition, as detailed in the final chapter, the study makes noteworthy contributions that advance the field of critical marketing. The meaningful coherence of the study has been justified throughout the thesis and highlighted in the final chapter, where the aim and the research questions and objectives are addressed. Finally, in the following section, I defend the ethical strength of the study.

4.7. Ethical considerations

From a research point of view, while the current research project is not of a highly sensitive nature, as with any research project, ethical considerations and concerns may arise. In this section, I present some ethical considerations pertaining to the two empirical studies (a netnographic observation of online platforms and groups and a qualitative study based on semi-structured interviews with users of self-tracking devices) comprising the thesis.

Starting with the netnographic study, it is argued that in online ethnographic studies, like in traditional ethnography, issues of anonymity and privacy need to be taken into consideration (Bryman & Bell, 2011). However, there are no universal rules and guidelines on how to address and tackle these issues (Markham & Buchanan, 2012). For instance, while Kozinets (2006) advocates communicating with members of online communities and obtaining informed consent, he emphasises that this is more of a personal preference than a recommendation regarding the appropriate way to conduct ethnographic research in online environments. Conversely, Eysenbach and Till (2001) maintain that the requirement for informed consent should be decided on the basis of the settings of online communities, which determine whether online postings are publicly available. Accordingly, Bonsu and Darmody (2008) in their study on the Second Life online platform decided against disclosing their research identities to avoid biasing user interaction, and because they collected data that was publicly available. I also followed this approach due to the public availability of the data, the critical nature of the study and the fact that the focus was more on users’ responses to marketing affordances than on the interactions and collective dynamics of the groups.
In addition, Markham and Buchanan (2012) underline that internet researchers should consider the harm that their study could potential cause. They further maintain that similar to the issues of anonymity and privacy, there are no ethical principles that could be applied universally; rather, potential harm should be assessed contextually. As indicated earlier, the present study does not engage with vulnerable groups or individuals and uses data that is available in the public domain. Thus, it is considered that the risk for potential harm is insignificant in the context of the present study. Nevertheless, efforts were made to minimise any potential risk of harm and invasion of privacy. For instance, the names of the users of online posts were omitted. In addition, while complete anonymity is difficult to safeguard on the internet, there was an attempt to present data in such ways that they were not easily identified and traced back to specific users. The ethical considerations for conducting qualitative interviews in academic settings are not dissimilar to those already discussed for online research, but because of the long tradition of employing qualitative interviews as a method of academic inquiry, there is more consensus on how to address them. Bryman and Bell (2011) identify potential harms to participants, lack of informed concern, invasion of privacy and deception as the main ethical issues in business research. The risk of harm to the research participants of the present study is negligible. In addition, the participants took part in this study voluntarily and had the opportunity to withdraw at any time. Without guiding their responses towards specific directions, the overall nature of the study and its academic purposes were outlined to the participants, prior to the interviews, so that they could have a general idea of what the study was about as well as to be in the position to make an informed decision about participating in the study. Moreover, the respondents received assurances about their anonymity. Thus, all names have been changed to ensure anonymity.

4.8. Summary
This chapter presented and justified the methodology of the thesis. Ontological and epistemological premises were analysed, while the methods adopted for the two empirical studies were detailed. Moreover, the trustworthiness of the study
was discussed, and ethical issues were addressed. The following chapter will present a brief overview of each paper comprising the thesis.
5. Summary of Appended Papers

5.1. Introduction
The present thesis is based on four papers, appended in full versions, which will be presented in this chapter. The papers approach the phenomenon of self-tracking from various angles, both methodologically and theoretically. However, they are interrelated, and together, they provide insights into the research questions and contribute to the overall aim of the thesis.

In particular, the first paper examines self-tracking as a form of prosumption, both in terms of consumers becoming active and constant prosumers of data (and hence value), through the use of self-tracking devices, as well as themselves becoming “prosumed” (produced) through self-tracking practices. By doing so, it theoretically addresses the first question of the thesis, which relates to the construction of consumers’ subjectivities. The first question is further tackled in the second paper, which empirically examines the marketing interventions employed in the construction of consumers’ subjectivities as active self-trackers. The third paper is guided by the second research question and explores consumers’ attitudes towards self-tracking as well as the marketing interventions identified in paper II. The final paper tackles the third research question by examining the emerging development of personal data markets that aim, ostensibly as the paper argues, to empower consumers by providing remuneration and other forms of compensation for their generated data, including data generated through self-tracking. The contributions of each individual paper are further analysed below, along with highlights of the links between the papers. The overall contribution of the thesis, as derived from the papers, will be further discussed in the next chapter.

5.2. Paper I: Prosuming (the) self
The first paper of the thesis is a single authored (Charitis, 2016), published in a special issue of *ephemera: theory and politics in organisation*, on the Consumption of Work and the Work of Consumption. An early version of the paper was presented at the eighth workshop on Interpretive Consumer Research in 2015.
This conceptual paper aims to provide an analysis of issues that are central to the present thesis in terms of the commodification and exploitation of consumers through the use of commercial self-tracking tools. It achieves this by providing insights into the effects and consequences of self-tracking, both on the individual level (consumer/user) and on the economic and societal level.

The paper presents a discussion of the existing critical literature pertaining to self-tracking and links it to dominant marketing discourses relating to prosumption and co-creation as a way of analysing self-tracking as a form of digital prosumption. In doing so, it contributes to the critical marketing literature (see chapter 2) and extends previous critical analyses pertaining to the “co-creation economy”.

Drawing on Dallas Smythe’s (1977) Marxist analysis of media and communications and his concept of “audience commodity”, the paper points out that self-tracking leads to the commodification of users’ lives through the appropriation and exploitation of their self-tracked generated data. The paper engages and contributes to the existing literature on prosumption by introducing the notions of the “prosuming self” and the “prosumed self”. The first signifies that the consumption of self-tracking tools turns users into constant producers (hence prosumers) through the generation of data pertaining to activities of their everyday lives. Thus, not only is self-tracking a profound demonstration that prosumption is becoming increasingly automated (Ritzer, 2014), as consumers become “passive” producers of data and value through tracking devices, but also, the automated and constant tracking of their whole lives leads to the “total prosumification of life” (Zwick, 2015). However, the paper makes the claim that equally, if not more, important for capital appropriation and accumulation is the generation of the “right” data that can prove beneficial and provide maximum profits for corporations. Thus, the paper suggests that self-tracking engenders specific subjectivities and subjects, “making” the quantified self a prosumed self that assumes the position of generating such kinds of data.

5.3. Paper II: “Made to run”: Biopolitical marketing and the making of the self-quantified runner

This paper was co-authored with Dr. Anna Fyrberg Yngfalk and Dr. Per Skålén, the main author being the author of the present thesis. This paper has been
submitted and is on a third round of review for publication in *Marketing Theory*, with minor revisions left to address. A previous version of the paper was presented at the 41st Macromarketing Conference in 2016.

The first paper of the thesis advances the claim that self-tracking produces specific subjectivities and subjects that resonate with the neoliberal model of the active, responsible and entrepreneurial self. This second paper attempts to empirically explore, through a qualitative case study, how these subjectivities are fostered, promoted and contained within a comprehensive self-tracking system geared towards running. Thus, it explores the biopolitical marketing strategies (see chapter 3) aimed at “making” the active self-quantified user.

The locus of the empirical investigation of the study is based on the self-tracking system of Nike+. Data, in the form of online posts, were collected from online Nike+ accounts and groups (see chapter 4 for a more detailed account of the method). The theoretical grounding of the paper is based on analyses pertaining to the role of biopolitical production in contemporary capitalism and is informed primarily by the work of Hardt and Negri (2000, 2004, 2009). Engaging with critical studies in marketing and consumer research that examine value co-creation from the prism of governmentality, and especially with recent theorisations of the biopolitical nature of contemporary marketing, the paper explores the dimensions constituting the biopolitical marketing strategy of Nike+, which moulds and governs the subjectivities of self-quantified runners. The analysis of the data shows the prevalence of three main biopolitical dimensions: the gamification of the running experience, the transformation of running into a competitive activity and the conversion of running into a social activity. Through these marketing dimensions, the study shows how a biopolitical marketing environment, which tames and captures consumers’ activities and bodily conduct, is constructed around a self-tracking system. Thus, the paper contributes to the stream of critical marketing scholarship pertaining to value co-creation and, in particular, to the emergent literature on biopolitical marketing. It achieves this by demonstrating that the ostensibly “wild” nature of biopolitical marketing (see Zwick & Bradshaw, 2016), which encourages and allows consumers’ independent and autonomous production, in fact controls, disciplines and encloses this productivity within specific boundaries.
5.4. Paper III: The quantification paradox: Exploring consumers’ attitudes towards self-tracking

The author of the present thesis is the sole author of this empirical paper. The paper has been submitted to the Journal of Research in Interactive Marketing and is under consideration for publication in a special issue: Understanding the Digital Customer Experience: Automation, Augmentation and Smart Devices.

The first two papers theorised and analysed the construction of consumers’ subjectivities through self-tracking practices and empirically investigated specific self-tracking-related marketing interventions aimed at developing a biopolitical environment in which these subjectivities can be developed. This empirical paper focuses on users of self-tracking devices by exploring their attitudes towards a number of different aspects of self-tracking, including the marketing interventions identified in the second paper.

Through a qualitative study based on semi-structured interviews with twenty self-trackers, this paper shows that users of self-tracking tools exhibit ambivalent attitudes towards five distinct dimensions of self-tracking: the motivational aspect, the level of familiarity, the fun factor, the social aspect and the generated data.

Engaging with previous studies on consumers’ ambivalence in various consumption contexts, the present paper contributes to the literature on consumer ambivalence through an empirical study of a topical consumption phenomenon, that of self-tracking. It demonstrates that the popularity and pervasiveness of smart digital technologies elicit both positive and negative reactions from consumers. By identifying the simultaneous existence of both negative and positive attitudes among users, the paper also adds to the existing literature on self-tracking, which has erroneously and insufficiently linked ambivalence to self-tracking.

5.5. Paper IV: Creating worlds that create audiences: Theorizing personal data markets

Co-authored with Dr. Alan Bradshaw and Dr. Detlev Zwick, Paper IV is a working paper, with the author of the present thesis serving as the main author. Versions of the paper were presented at the ninth workshop on Interpretive Consumer Research (2017), the 13th Historical Materialism Conference (2016) and the mid-

The issues regarding the commodification and exploitation of user-generated self-tracked data are central to papers I and II, in particular, and to the whole thesis, in general. This last paper revisits these issues, though from another perspective, as it focuses on the emergence of personal data markets and pertinent marketing programmes that profess to empower users by providing monetary and other forms of compensation for users’ data, including but not limited to self-tracked data. The paper aims to answer whether this emerging phenomenon, the rise of personal data markets and related programmes, can provide a response to the commodification and exploitation of consumers through the appropriation of their data.

The paper begins with an analysis of data (digital/communicative/surveillance) capitalism based on the appropriation of user-generated data. It then focuses on emerging personal data markets and presents a number of such endeavours, paying particular attention to the user empowerment discourse that they employ in their promotional material. A detailed analysis of this development questions whether the aim of these personal data markets is to actually empower users. The critique is premised on two main points. First, the paper explicates that these personal data markets do not work from an economic standpoint. Second, the claim is made that although personal data markets fail to provide substantial economic gains, they do function ideologically as they conceal the real objective of data capitalists, which is to create worlds that create audiences. Thus, the paper maintains that personal data markets, instead of empowering consumers as they profess, work towards containing audiences within the worlds created by digital giants. The paper concludes by presenting the argument that such approaches fail to provide a genuine empowering model as they do not address the foundation of data capitalism, which is the commodification of users. Thus, there is a need to look beyond the individual(istic) compensation of users and to develop commons-based approaches for data use and governance.
5.6. Summary

This chapter presented and briefly outlined the four papers that comprise the thesis. The contribution of each paper was discussed and linked to the research questions of the thesis. The next chapter, which is the final chapter, will bring all the previous chapters together and discuss the main contributions of the thesis.
6. Findings and discussion

6.1 Introduction

Employing a biopolitical marketing perspective to examine the popular consumption phenomenon of self-tracking, the present thesis sought to explore the extraction and appropriation of value from increasing aspects of consumers’ lives. The aim was addressed both in the individual papers and in these introductory chapters, which further outline, develop and explicate the theoretical groundings and empirical findings. Approaching self-tracking from different angles, both theoretical and empirical, enabled me to make a number of contributions, which will be presented in this chapter. In particular, engaging and drawing on Hardt and Negri’s work, I developed the notion of the “biopolitical prosumption of life”, which entails the construction of subjectivities and subjects, “the prosumed self”, who constantly generate value, referred to as “the prosuming self”. In addition, biopolitical prosumption involves the “creation of worlds”, within which these subjectivities and subjects can fully develop in ways that augment the value that can be extracted and appropriated.

These outcomes are further illuminated in this final chapter. First, the “biopolitical prosumption of life” is explicated and linked to Hardt and Negri’s notion of biopolitical production. Following this, a constitutive element of biopolitical prosumption, the “creation of worlds” is delineated. This is then followed by an analysis of the subjectivities that are fostered and the subjects that “inhabit” these worlds—the “prosumed self” and the “prosuming self”.

The first section of the chapter focuses on the main aim and explicates how it has been addressed in the thesis. It also responds to the first question of the thesis pertaining to the development of consumers’ subjectivities. In addition, it highlights the contribution of the present thesis to critical marketing scholarship. The subsequent sections provide detailed responses to the other two questions that have guided the study. To conclude both the chapter and the thesis, social implications are discussed, while limitations are outlined, and suggestions for further research are offered.
6.2. Analysing and theorising the extraction and appropriation of value from consumers

6.2.1 The biopolitical prosumption of life

As analysed in the second chapter, biopolitical marketing draws upon Hardt and Negri’s (2000) concept of biopolitical production in referring to the promotion, development and extraction of value from consumers’ subjectivities, relations and lifestyles. What matters most for biopolitical production is not the production of material commodities, but of social relations (Hardt & Negri, 2009). As production takes different forms, exploitation also mutates and becomes biopolitical, as it is based on the expropriation of the common, which is collectively and socially produced. Conversely, the fact that biopolitical production goes beyond the production of material goods and encompasses social, cultural and even political facets of life makes it more autonomous, which presents opportunities and challenges (Hardt & Negri, 2004). Thus, for Hardt and Negri, biopolitical production is not necessarily subsumed by capital; it may also have an emancipatory political potential.

For biopolitical marketers, however, the enormous value-creating potential of biopolitical production is that it binds the production of subjectivities and social life to the consumption of products and services, transforming this into biopolitical prosumption. While biopolitical production relates to the production of social life, which may take place without the involvement of capital, or even in opposition to capital (Hardt & Negri, 2009), biopolitical prosumption engenders forms of life that are linked directly to consumption practices and behaviours that are immanently subsumed to capital.

Thus, as illustrated in the present thesis, biopolitical prosumption refers to subjectivities and lifestyles, social relations or even worlds that are developed in direct connection or through the consumption of goods and services. Consequently, the present study contests and extends previous marketing scholarship, both managerial and critical, that focuses on the cognitive and social capacities of consumers for value creation. It also demonstrates, by introducing the notion of “the biopolitical prosumption of life”, that it is the entirety of human existence that becomes productive, as cognitive, bodily, social and emotional
aspects are seen as opportunities and are thus mobilised for the creation of value in the market. It is further illustrated that the biopolitical prosumption of life requires and engenders the creation of worlds and subjectivities, a point explicated in the following sections. How this advances critical marketing scholarship is also outlined.

In the case of self-tracking, biopolitical prosumption demonstrates another interesting characteristic that further outlines the distinction between biopolitical production and prosumption. For Hardt and Negri (2009), the autonomy of biopolitical production is also signified and highlighted by the immeasurability of the produced value, as it is premised on immaterial, affective labour, which takes place in the social realm. As they unequivocally assert, “in Empire the construction of value takes place beyond measure” (Hardt & Negri, 2000, p. 356) as, after all, “how can you measure the value of an idea, an image, or a relationship?” (Hardt & Negri, 2009, p. 270). The pervasiveness of self-tracking culture and its diffusion into different aspects of human life refute this assertion, as self-tracking is aimed at tracking, quantifying, datafying and measuring aspects of life that have been traditionally beyond the reach of measurements, such as cognitive, emotional and social functions and conduct. Thus, quantification and measurement make possible the valorisation of these functions—even the value of an idea or a relationship becomes measurable.

6.2.2. The “creation of worlds”

The empirical investigation and interpretation of a self-tracking system illustrated that biopolitical marketing seeks to provide resources (in this case, technological affordances) that consumers can mobilise in order to create and develop an environment that will capture, contain and valorise their cognitive, social and bodily conduct. In other words, it is the consumers’ task to construct the conditions and the environment (“the world”) in which the prudent, responsible entrepreneurial subject (the “prosumed self”) can fully develop into a constant producer of value (a “prosuming self”).

In the case study presented in paper II, that of a self-tracking system geared towards running, biopolitical marketing was found to entail the development of competitiveness, albeit in a playful manner, which fosters interactivity among
users. Thus, self-tracking is promoted through three main marketing dimensions – the gamification of the tracked experience, its transformation into a competitive activity and its reconfiguration as a social activity – all of which comprise the overall biopolitical marketing strategy. These dimensions are offered simply as opportunities, as offerings that consumers need to respond to and engage with, in order for the biopolitical marketing environment, the “world”, to grow and flourish. For this to happen, these marketing strategies develop an ostensibly “wild” environment in which consumers can roam freely; in fact, however, they aim to tame the self-tracked body and contain it within the virtual enclosures of the self-tracking system so as to become a resource for value. Thus, while for co-creation marketing to succeed, consumers need to be persuaded that they are collaborators and equal partners and that they have as much to gain as marketers and firms, biopolitical marketing pertaining to self-tracking goes beyond that. It champions the benefits that accrue to consumers through the attainment of specific subjectivities and lifestyles. It is, therefore, stated that in this emerging “co-creation” economy, there is no longer a need to treat consumers as collaborators, as marketers “disappear” from the equation, and consumers become the sole creators of their better selves—the developers of the environment (world) that allows them to produce more value.

Thus, it is maintained that marketing becomes biopolitical, not only because it focuses on the construction of specific consumer subjects, but also because of the development of consumption environments that allow the construction of desired subjects, while also ensuring that consumers remain contained within the virtual boundaries of these consumption enclosures. The creation of these consumption environments is the result of biopolitical production (see Hardt & Negri, 2000), which is based on the mobilisation of consumers’ corporeal, cognitive, affective and social skills. Equally important, however, it materialises only through consumption, in this case, of self-tracking devices, thus becoming biopolitical prosumption, as explicated in the preceding section.

From the empirical investigation of a self-tracking system, the biopolitical prosumption of life was found to entail the development (from consumers themselves) of environments and spaces, the “construction of worlds”. As the analysis of personal data markets indicated, this development is not specific only
to self-tracking. On the contrary, it is argued that the creation of worlds is constitutive of biopolitical marketing. Personal data markets—instead of empowering consumers, as they profess in accordance with the co-creation discourse—serve to contain consumers within consumption environments, within worlds in which they can freely generate value. Thus, based on empirical investigations and theoretical interpretations, the present thesis shows that biopolitical marketing requires as well as triggers the development of worlds (see also Lazzarato, 2004).

The extant literature highlights that biopolitical marketing not only allows but also encourages consumers’ freedom and creativity. Zwick and Ozalp (2011, p. 248) assert that biopolitical marketing is premised on consumers’ “free and self-producing actions” in generating “a sort of commons” which may even take undesirable directions. As contemporary consumer capitalism thrives on the production of alternatives (Schreven et al., 2008), biopolitical marketing is premised on the appropriation and subsumption of alternative, rebellious, wild and counter-cultural forms of life (Zwick and Bradshaw, 2016). In that respect, deviations are encouraged, as they provide opportunities for the appropriation of cultural innovations and the further exploitation of consumers’ capacities (Zwick and Bradshaw, 2016).

Responding to these studies, the thesis demonstrates that the freedom sought by biopolitical marketing is always a “governed freedom”, confined within specific limits delineated by marketing, contained and enclosed within specific environments and worlds that marketing fosters, promotes and supports, within which its subjects can roam freely. Thus, contributing to the existing literature, the present study indicates that while celebrating consumers’ freedom, biopolitical marketing actively safeguards – through the creation of consumer environments – that this freedom does not take undesirable directions and that it is developed in such ways that allow and maximise the potential for value extraction.

6.2.3. The “prosumed self” and the “prosuming self”

The creation of worlds also allows for the emergence of desired consumer subjectivities and consumer subjects. The notions of the “prosuming self” and the “prosumed self” were introduced in the first paper of the thesis on a theoretical
analysis of the phenomenon of self-tracking. The notion of the “prosuming self” encapsulates a consumer who constantly produces data and value through the use of self-tracking tools. As prosumption is nowadays at the forefront of economic value creation (Cova et al., 2011; Ritzer, 2010; Ritzer & Jurgenson, 2010), the “prosuming self” has tremendous economic and marketing implications. It is the consumer-generated data that firms capitalise on, consequently tuning consumers into “value”. Thus, contrary to the co-creation discourse (e.g. Payne et al., 2008; Vargo & Lusch, 2008), which treats consumers solely as operant resources, this study asserts that in the age of biopolitical marketing, consumers’ lives also become an operand resource. The present study, thus, posits that a shift is taking place in the “co-creation economy”, as the emphasis is no longer placed exclusively on the appropriation of consumers’ technical, social and cultural competences, a point which corroborates findings from previous critical co-creation research (see Bonsu & Darmody, 2008; Cova et al., 2011; Echeverri & Skålén, 2011; Zwick et al., 2008). More importantly, emphasis is placed on the subsumption of consumers’ whole lives through self-surveillance mechanisms, of which self-tracking is an exemplary manifestation. The second paper of the thesis examined, through an empirical investigation of a self-tracking system, the marketing mechanisms that foster and enable the subsumption of consumers’ lives.

In addition, paper I illustrated that the production of data is only one side of the story, as self-tracking also leads to the production of the consumer as an active and entrepreneurial self—in other words, as the “prosumed self”. The basic tenet of self-tracking is the optimisation effect that the activity may have on people’s lives, as consumers use self-tracking devices to attain knowledge about themselves and improve aspects of their lives. Paper I showed that this improvement is aligned with market-based values that allow consumers to generate data that can be of maximum benefit to organisations. Therefore, the study contributes to previous critical marketing research exploring how marketing discourse, in general, and co-creation discourse, in particular, promotes the formation of a prudent entrepreneurial consumer subject (see e.g. Beckett, 2012; Beckett & Nayak, 2008; Shankar et al., 2006; Yngfalk & Fyrberg Yngfalk, 2015; Zwick et al., 2008) by analysing how this unravels within a specific consumption
context. In self-tracking, the production of these subjectivities, and subjects, is not simply linked to self-tracking practices; it is only made possible through the consumption of self-tracking tools. Thus, this study contributes to previous critical marketing studies, not only by extending research on the formation of consumer subjects in the area of a novel popular consumption phenomenon, but also by theorising these consumer subjectification processes through the introduction of the notion of the “prosumed self”. In that respect, the notion of the “prosumed self” also responds, from a theoretical perspective, to the first question of the thesis on the development of consumer subjectivities and forms of life that enable the production and appropriation of value from consumers’ lives. This question was further empirically addressed in the second paper.

To recap and bridge the different notions, marketing becomes biopolitical, as it is based on the extraction of value from consumers’ (in this instance, self-trackers) lives and lifestyles. While marketing has traditionally focused on delivering value to consumers (see AMA’s 2004 marketing definition), contemporary popular theorisations have been preoccupied with the active involvement of consumers in harmonious cooperative relationships with marketers in the creation of value (e.g. Vargo et al., 2008; Prahalad & Ramaswamy, 2004). Responding to this literature, critical marketing studies have explored how the co-creation discourse and its attendant practices shape the subjectivities of active and empowered consumers (see e.g. Fougère & Skålén, 2013; Giesler & Veresiu, 2014; Skålén et al., 2010; Shankar et al., 2006; Yngfalk & Fyrberg Yngfalk, 2015; Zwick et al., 2008) who are eager to engage in co-creation processes. This stream of research has also highlighted the exploitative character of marketing (e.g. Cova et al., 2011; Bonsu & Darmody, 2008; Zwick et al., 2009), which treats consumers as a working, though unpaid, force that through “immaterial labour add cultural and affective value to market offerings” (Cova & Dalli, 2009, p. 315). Engaging with and extending this argumentation, the present study underlines that beyond the mobilisation of their social, emotional and cognitive skills, biopolitical marketing targets and treats consumers’ whole lives as value-creating opportunities. The automation of prosumption (Ritzer, 2014) through self-tracking technologies allows for the instant capture of value based on consumers’ daily activities. Thus, the role of marketing involves extending the reach of data capture to more
activities, while also encouraging and promoting activities that can prove more valuable for marketing. This is achieved through the construction of subjectivities, the promotion of lifestyles and the creation of worlds. Thus, the present study maintains that biopolitical marketing is premised on the biopolitical prosumption of life, which entails the development of interrelated subjectivities, forms of life, relations and worlds that allow marketers (by enabling consumers) to extract and appropriate optimal value from consumers’ lives. The creation of these worlds allows for desired subjectivities to emerge, which are directly linked to specific consumption behaviours, as they enable the “prosumed self” to fully develop into the optimal “prosuming self”.

Having addressed the main aim of the thesis as well as the first research question, the following sections address responses to research questions 2 and 3 and explicate the contributions to the previous literature.

6.3. Contribution to consumer research: Consumers’ ambivalence towards self-tracking

As described, self-tracking has emerged as a popular consumption phenomenon in recent years, as the development of affordable and easy-to-use self-tracking devices has enabled consumers to monitor and quantify various and diverse aspects of their lives. While increasing segments of the population are engaging in self-tracking activities, there is also the observation of high rates of abandonment of activity-tracking devices, which poses questions about consumer acceptance of self-tracking. For instance, in a study (Lazar et al., 2015) in which participants were given the opportunity to select an activity tracker of their choice, 80% of the participants had stopped using their self-tracking device within two months. Their reasons for abandoning their activity trackers included: the trackers did not fit their conceptions of themselves; the data collected were not perceived to be useful; the maintenance of the device became unmanageable; or the use of the self-tracking device did not fit with their routine.

Despite being a popular and topical phenomenon, consumer research has provided limited empirical insights into the practices of self-tracking (Etkin, 2016; Pantzar & Ruckenstein, 2015). The present study contributes to the scant empirical consumer research on self-tracking and answers the second research question by
conducting an exploratory study on consumers’ attitudes towards self-tracking and pertinent marketing interventions. As presented in paper III and further outlined in this section, the study found that even active users exhibit ambivalent attitudes towards self-tracking.

Ambivalence in consumer attitudes has been observed in a diversity of consumption settings. For instance, Johnstone and Hooper (2016) suggest that consumers develop ambivalent feelings towards environmental consumption behaviours and green actions because they do not think that their own actions can actually make a difference; they also question whether other people would be willing to engage and commit to environmental practices. Cherrier and Belk’s (2015) study on the consumption practices of Emirati women identified a strong sense of ambivalence about economic power and loss of tradition linked to Dubai’s rapid transformation. The commercialisation and transformation of an ancient tradition of Celtic pagan origins to the modern-day holiday of Halloween has also been found to elicit consumer ambivalence (McKechnie & Tynan, 2008). Karanika and Hogg (2016) have identified three types of consumer ambivalence: towards goods that prioritise individual over collective and relational identity, towards goods that hamper individual, relational and collective identity and towards goods that prioritise relational or collective over individual identity.

A notion of ambivalence that is specific to consumer studies is attitudinal ambivalence, which emerges when people simultaneously evaluate a specific attitude object both positively and negatively (Thompson et al., 1995). Attitudinal ambivalence has been used as an analytical concept in a plethora of studies in diverse areas, including attitudes towards members of racial, ethnic or gender groups, towards drugs or alcohol, towards organ donation as well as towards consumer behaviour (Jonas et al., 2000). Technology use (Mick & Fournier, 1998), including the use of personal technological devices (Johnson et al., 2008), has also been found to elicit ambivalent attitudes amongst consumers. Adding to this research, the present study found that consumers develop ambivalence towards five dimensions of self-tracking: the motivational aspect, the level of familiarity, the fun factor, the social aspect and the generated data. The main

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3 To further support the study’s results, additional empirical findings are presented in this section.
findings of the study are presented in paper III of the thesis, however, additional empirical evidence will be presented in this section, which will be discussed in connection with the findings and arguments of the whole thesis.

To begin with, while the motivational aspect of self-tracking has been previously highlighted, this study found that consumers hold both positive and negative attitudes towards the motivational capacity of self-tracking. For instance, in linking self-tracking to a form of addiction, a respondent explained that while, in the beginning, it helped her stay motivated to keep exercising, it also had the opposite effect, as she had to stop using it for a while when it became quite burdensome, negatively influencing her social life:

I started on a Monday just walking, and then I had some time apart since the next exercise, and I saw, oh, five or seven days since my last exercise, and I had to keep motivating myself. Now it’s rather the opposite; [I have to] take time aside from the training, take time to rest because it’s not that often that I rest.

The level of familiarity is also an interesting aspect of self-tracking. As previous studies have observed, while consumers may be initially inclined to use activity trackers, once the novelty wears off, they minimise their use or completely abandon them. However, this study uncovered that the effect of novelty on consumers may be more nuanced, as respondents may lose interest after engaging in self-tracking for a while, but may also remain reluctant to using self-tracking tools in the first place because of unfamiliarity with a specific tool or a certain aspect of self-tracking. Nevertheless, even respondents who expressed that self-tracking can become tedious did see value in its use. A respondent who was also a competitive athlete was a characteristic example. He stated that he discovered that after engaging in self-tracking for a while, he had gained enough knowledge and that he no longer needed to self-track. However, as a competitive athlete, he felt that self-tracking gave him an extra boost to keep improving his performance:

When you start riding, it really doesn’t matter what you’re doing when you are riding because you will improve over time. It doesn’t matter if you are doing intervals or just fun riding. But when you have reached a certain level, when you actually need to do very strict intervals, [you have to keep] doing it correctly to improve. And I think that without numbers, it wouldn’t be that easy to do that.
Moreover, engaging in self-tracking can be seen as a fun activity in itself or as increasing the fun level of the tracked activity. In fact, the study presented in paper II demonstrates that one of the main marketing aims pertaining to self-tracking is to “gamify it”, to turn it into a playful activity. These attempts do not seem to have been particularly successful, as the respondents professed both negative and positive attitudes towards the fun factor of self-tracking. For example, a respondent who acknowledged that self-tracking can be fun also expressed concerns about the fact that it turns self-tracking into “work”. As he explained:

To a certain extent, the fun part is to see yourself make progress, like when you notice, like when I ran the Berlin half-marathon twice. The first time, I had a time of two hours and ten minutes; the second time, I had a time of one hour and fifty minutes – you’re actually able to see that that kind of progress can be fun. But, at the same time, I feel like if you start getting obsessive about it, it turns the exercise from a nice hobby, and a thing that I do mostly for relaxation, into work… so I do try to find a balance between those things, which is sort of why I sometimes do a lot of tracking and sometimes I don’t, and I force myself not to take the data too seriously.

In that respect, these results support the findings of an experimental study (Etkin, 2016), in which it was suggested that by focusing on measurements, activities may become less enjoyable for users of self-tracking devices.

Another important dimension, as suggested in paper II, of self-tracking-related marketing interventions is the attempt to make self-tracking a social activity. Again, the results from the study presented in paper III indicate that these marketing interventions are partially successful because, for respondents, the social aspect may not play such an important role in self-tracking or may even result in the opposite of the desired effect. Similarly, competitions, which were also underscored in paper II as part of the overall marketing strategy, elicited mixed reactions. The respondent professed that competitions have helped them to both become more engaged in self-tracking and to achieve their intended goals. However, they also warned that competitions may have the reverse effect and may even lead to dangerous situations for users.

The final aspect of self-tracking that was found to provoke ambivalent attitudes was the generated data. While the respondents understood the importance of data and found them useful, they also raised concerns about data accuracy, which undermined the whole practice of self-tracking. An illustrative case was presented
by a respondent who sounded both perplexed and annoyed by the data he was seeing:

It also pinpoints when my pulse is at the highest and lowest, so I try to use that and figure out why my pulse is high here and why it is low here. Usually, I come up with “Oh, there’s a giant hill here, so the pulse is higher”. There have been occasions when I have been really high up in the pulse section while on flat ground, which is confusing.

The implications of the findings of this study are manifold. First, as indicated in the above discussion, they raise questions about the actual effectiveness of the biopolitical marketing strategies developed in conjunction with self-tracking technologies, which have been described and analysed in paper II of the thesis. Gamifying the self-tracked activity, transforming it into a competitive endeavour and reconfiguring it as a social activity have been identified as the three main marketing dimensions upon which the self-tracking experience is developed (Charitis et al., forthcoming, paper II of the present thesis). However, as the findings of the study presented in paper III and in the current chapter demonstrate, all three dimensions elicit ambivalent reactions from consumers of self-tracking tools.

Of particular interest to the present thesis is the social aspect highlighted in the self-tracking literature (see chapter 3 of the thesis) as well as in the marketing literature, both managerial and critical. For instance, Bode and Kristensen (2015) maintain that for highly committed and dedicated users of the Quantified Self community, the social dimension of self-tracking goes beyond the mere act of social sharing; it is through social interaction and communication that users deconstruct and reshape the goals, practices and meanings of self-tracking. The second paper of the thesis also highlights the importance of the social aspects of the self-tracking experience. However, the results of the study presented in paper III paint a different picture, as the respondents focused not only on the positive social aspects, but also on negative attitudes towards them.

The study also contributes to the literature on consumer ambivalence by demonstrating that a highly topical and widespread digital consumption phenomenon, which has attracted the interest of diverse segments of the global population, provokes both positive and negative reactions, even among committed
users. In addition, it provides empirical evidence of assumptions and claims in the self-tracking literature about the existence of ambivalence among users of self-tracking devices. As explicated in paper III, the connection between ambivalence and self-tracking has so far been weak, as the term ambivalence has been used to: (i) highlight the existence of negative reactions, primarily of consumers who are no longer engaged in self-tracking (Lupton, 2016); (ii) analyse ex-users’ responses, which could also be characterised as indifferent rather than ambivalent (Epstein, Kang et al., 2016) and (iii) discuss results from an experimental study on self-tracking and behavioural change, wherein ambivalence could also be attributed to the behaviour change itself (Ploderer at al., 2012). Thus, the term ambivalence, which denotes the simultaneous existence of both positive and negative feelings and attitudes, has been misrepresented in the self-tracking literature. The present study, thus, empirically demonstrates that active users may simultaneously exhibit both positive and negative attitudes towards self-tracking. The prevalence of ambivalent attitudes among consumers of self-tracking devices also provides an interesting insight pertaining to one of the focal points of the present thesis, that of consumer subjectivities. This insight is of particular importance, especially when juxtaposed with the managerial discourse, on one hand, and the critical marketing discourse, on the other. As discussed in the first two chapters, the co-creation discourse celebrates the active involvement of consumers in value-creating processes and hails the development of the “empowered” consumer. From an opposing vantage point, critical studies talk about the construction of active self-regulating consumer subjects engaged in exploited consumer labour. However, the study presented in paper III revealed a different story, as consumers do not appear to assume only positive or only negative subject positions, but disclose more nuanced attitudes towards self-tracking and related marketing tactics and affordances. Thus, based on this study, instead of the “empowered” co-creator or the “exploited” unpaid prosumer, it would be more pertinent to talk about the baffled consumer (see also Karanika & Hogg, 2010).
6.4. The elusive promise of consumer empowerment: The case of personal data markets

The third research objective of the thesis was to examine the emergence of personal data markets as a response to the appropriation and commodification of user-generated data. This objective was addressed in paper IV of the thesis and will be further discussed and expanded in this section.

Throughout the thesis, the issues of the commodification and exploitation of consumers’ labour, mainly though the appropriation of their data, have been discussed and underlined. While the literature has mainly focused on the appropriation of users’ data on Web 2.0 platforms, the emergence and popularity of self-tracking augments and expands exploitation, as consumers generate data for many diverse aspects of their lives. This has engendered various responses and critiques from users themselves—from critical scholars who highlight that digital capitalism is premised on the exploitation of users’ labour and data to pioneers of digital technologies who affirm that the current model is unsustainable—who have begun to realise the unfair distribution of economic benefits (see Berners-Lee, 2017; Lanier, 2013; Tapscott & Williams, 2006). Similarly, a number of commercial entities have professed that the solution can be found in the development and establishment of new personal data markets that, through the adoption of a celebratory rhetoric that echoes the co-creation discourse, will “empower” consumers by remunerating them for their data.

To begin, the examination of personal data markets shows that they do not actually address the exploitative nature of digital capitalism, as they do not work from an economic standpoint and can only provide miniscule compensation to consumers. However, personal data markets function ideologically by concealing that the main objective of data capitalists is to create worlds that create audiences. In this way, personal data markets have become an instrument that contains audiences within these worlds. Moreover, as exemplary forms of biopolitical marketing, they govern consumers’ bodily, cognitive, affective or social conduct without giving the impression that they do so.

Providing remuneration based on individuals’ data production aims, ostensibly at least, to address the exploitation of users’ digital labour, which is materialised through the commodification of their data. However, it fails in this effort, as it
does not contest the foundation of digital capitalism: the commodification of data. On the contrary, it augments it and internalises it, as data cease to be the product of a user’s engagement with the digital environment—even one that is commodified by various third parties—but become an end in themselves in determining this engagement. This ultimately leads to the self-commodification of the user through the construction of an alienated “digital self” (Schau & Gilly, 2003; Sheth & Solomon, 2014), whose sole aim is its own commodification. Selling one’s own data can be seen as a reification process (see Lukács, 1971), as everything pertaining to human behaviour and activity becomes a thing that can be traded. Examining more closely the impact of reification on the individual and societal level, as Lukács suggests, through the self-commodification of personal data in this case, we are confronted with a dystopian present, whereby the prevalent ethos is that of an “individualism gone wild” and where all interactions and relationships are perceived as transactions based solely on the potentiality for greater profit (Caffentzis, 2010).

In that respect, remuneration for users’ data can be seen as a response to a market problem that is premised on augmenting and extending the self-entrepreneurialisation of digital users as neoliberal “active citizens”. As such, not only does it reconfigure what it means to be a human person (Mirowksi, 2014), it also commodifies every aspect of human existence, as life itself becomes a product. In a world where competition is rife, risk-taking is imperative for the neoliberal subject to survive and prosper, while potential failure is attributed only to bad decisions taken by the individual. Through market incentives, rewards and sanctions, neoliberal subjects are propelled to become more active, more enterprising and eager to take risks that may maximise their own self-valorisation (Dardot & Laval, 2014). Entrepreneurialisation of the self becomes absolute, as exploitation is disguised as investment, while self-branding masks false consciousness (Gandini, 2016). Self-branding gurus profess that we should all treat ourselves as companies and become CEOs of Me.Inc (Peters, 2007). Instead, personal branding not only subsumes the self into the market, it also provides a rationalisation for it based on the short-sighted view that since companies already treat us as products, then the best we can do is to treat ourselves as products as
well, something that not only presents no escape from the business culture whatsoever, but also, it further cements its logic and demands (Davis, 2003). Thus, the entrepreneurial self is fuelled by the promise of success and the threat of failure (Bröckling, 2016). It is also propagated by the ubiquitousness of neoliberalism, which denies any safety net for the individual, pushing him into increasingly precarious situations (Šrnicek & Williams, 2015). Precariousness is no longer the exception, as it does not occupy a marginal position; instead, it is inextricably linked to the expansion and dominance of contemporary neoliberal capitalism (Berardi, 2009). Thus, precariousness is not just a symptom or an undesired but unavoidable side-effect of neoliberal policies. On the contrary, it is a core structural feature of neoliberal capitalism. In order for the neoliberal subject to become entrepreneurial, he or she has to face precarious working and living conditions. The more precarious life becomes, the more entrepreneurial the subject needs to be. This is also evident in what Bröckling (2016) contends is the other side of the entrepreneurial self—the indebted man. The entrepreneurial self is constantly in search of new profit opportunities, ready to take any risk in the hope of maximising gains, while the indebted man is in a constant pursuit of repaying that credit that will allow him to take the desired risks, therefore being in state of constant precariousness. The precarious subject—the indebted man—can only become the most successful entrepreneurial self through the financialisation of every aspect of his or her life.

Following the 2008 global financial crisis, the term financialisation has attracted considerable attention, as the crisis has been directly linked to the dominance of finance over the political, the economic and the social life. In 2002, Martyn maintained that financialisation has already permeated people’s daily lives, with a significant impact on cultural norms and values and the production of specific individual subjectivities. As Aalbers (2008) underlines, this is exemplified by the way in which the family residence is now increasingly being seen, not simply as a place of living, but as a value-generating asset that will allow individuals to gain access to a number of health, education and other services that are being increasingly privatised in the context of a shrinking welfare state. This phenomenon has been augmented by the emergence and popularity of online
platforms like Airbnb and Uber, which are based on the premise that for precarious neoliberal subjects, the car and home are another means of generating income. In fact, much like neoliberalism, financialisation has become so entrenched in people’s psyche and daily lives that is now seen as a natural phenomenon. However, as Hansen (2014, 628/630) underlines:

financialization is not given by God or by nature, it is a cultural process where we come to increasingly see the world in financial terms....Financialization is also a state of mind, a cultural blueprint where everything is evaluated according to pecuniary value. We are no longer citizens in a nation but instead we are consumers and investors in the competition state.

Morozov (2015b) further underlines the significance of datafication in the overall financialisation of everyday life. Datafication of everyday life leads to the financialisation of everyday life, as every human activity should be perceived according to the potential that it has to generate monetary value. As Martin et al. underline (2008, p. 121), “in this financialized world, people are also invited to treat their lives as if they were corporate spreadsheets parsed out and recombined bits of their activity”.

The popularisation of personal branding, the corroding spirit of self-entrepreneurialism and the uncontested dominance of financialisation have contributed to the expansion of market relations and the commodification of life. Obviously, this is not a novel phenomenon or concept, and neither should it be linked exclusively to the advent of digital technologies. Bookchin (1989) uses the term embourgeoisement to underline that in capitalist societies, market relationships and marketplace values have penetrated spheres of life that once provided a refuge from competitive forms of social relations such as familial, educational, personal or even spiritual relationships.

Despite neoliberalism’s assertions, markets are the result of specific activities that shape and construct them, even if those activities may not be easily observable, giving the impression that markets are naturally existing, free from all intervention (Kjellberg & Helgesson, 2007). In fact, as Polanyi (1994) demonstrates, the market economy is not only a relatively recent historical phenomenon; it also emerged through specific political interventions. Nevertheless, the hegemony of neoliberalism, both as an economic and political ideology, has propelled Jameson
(1991, p. 262) to profess that ‘the market is in human nature’ is the proposition that cannot be allowed to stand unchallenged; in my opinion, it is the most crucial terrain of ideological struggle in our time’. Neoliberal rationality, however, holds that even the solution to a failing market system can only be found in new markets (Mirowski, 2013). This has been the case with the development of personal data markets. Despite their claims, their emergence does not empower consumers and redistribute wealth. What they actually achieve is the prevention of the collapse of the market system, which is based on the complete exploitation of users’ labour by establishing a new system that is, or at least appears to be, less exploitative. In that respect, this “new world” that personal data markets and related marketing schemes create, while being similar to the old one, has the potential to more effectively create and contain its audiences.

There is another implication in relation to marketing scholarship, in particular the co-creation discourse that should be addressed. The development of these markets concerns a specific product of consumer labour—data. While it has been argued that these markets do not address the power imbalances upon which digital capitalism is based, their emergence signifies the profundity of these imbalances. In a similar manner, critical marketing scholarship has highlighted the exploitation of consumer labour as intrinsic to the concealed dimension of co-creation processes. Thus, since the exploitation of consumers’ data has triggered attempts to remunerate consumers, it would not be strange to see similar efforts to provide compensation for additional “fruits of consumer labour” that co-creation so keenly appropriates.

6.5. Societal implications

Having addressed the main aim and the research questions of the thesis, I will now discuss some broad implications pertaining to the outcomes of the study. As elucidated in the first chapter, the present study strived foremost to examine the power of marketing and consumption in contemporary Western societies. More particularly, the study explored how contemporary marketing practices promote and construct subjectivities, lifestyles and worlds, how they reconfigure free consumer subjects that are willing and eager to engage in value-producing consumption activities. Following this approach, the implications drawn from the
present thesis do not pertain to the effectiveness and improvement of marketing practices; instead, they are of a broader societal nature.

The first issue that needs to be addressed, as indicated in the present thesis, is the appropriation and use of self-tracked data by corporations and other interested parties. To that end, regulation has to safeguard users’ rights, as the control of data must be handed back to them. As previously analysed, the development of new (data) markets cannot achieve this. On the contrary, it was suggested that there needs to be limitations and constraints on attempts to link the generation of data to the provision of citizen services (health, insurance, education and employment). This point relates to both the commercial development of self-tracking and, more generally, the prevailing marketing discourse. Acknowledging the greater societal impact of marketing, there have been attempts and claims that marketing can have a transformative and emancipatory role in people’s lives, improving, for instance, healthcare services and, thus, enhancing people’s well-being (e.g. McColl-Kennedy et al., 2012; Anderson & Ostrom, 2015). However, the insistence of this discourse to treat citizens (patients, employees, etc.) as consumers or customers signifies the dominance of neoliberal rationality, which emphasises that societal issues can only be resolved through the market (see Brown, 2015; Dardot & Laval, 2014), but ignores the social inequalities and disparities that may be propagated and intensified. The development of personal data markets is an exemplary manifestation of this rationality, as the solution to a failing market system can only mean one thing: new markets.

Accordingly, the commercial development of self-tracking can further reproduce social inequalities. While self-tracking may be promoted as empowering for individuals, its totalising presence and power as well as its highly individualistic ethos may in fact augment socio-economic inequalities and further marginalise individuals who do not have access to such technologies and who are unable to track and quantify themselves. Cathy O’Neil (2016), a former Wall Street data scientist, coined the expression “Weapons of Math Destruction” to highlight the inequalities that are perpetuated by the algorithmic governance of our lives, through the ubiquitous yet complex and incomprehensive mathematical models that increasingly determine who can access financial and health services, who will be admitted to higher education, who will be overlooked in the job market and
even who will be targeted by the police. If the provision of and access to a number of services become contingent on self-tracked generated personal data, self-tracking can become a weapon that discriminates between people who can produce good data in their everyday activities and those who cannot: the chronically ill, the poor and precarious uninsured workers who have to work long hours to make ends meet.

6.6. Limitations – Further research

As with any research project, the present thesis exhibits a number of limitations, which provide opportunities for further research. First, the thesis focuses on a specific consumption phenomenon, self-tracking, with distinctive characteristics. These characteristics – self-surveillance, tracking and measurement of consumers’ activities, generation of data – make self-tracking pertinent to the theoretical analysis of the biopolitical nature of contemporary marketing, which has been advanced in this thesis. At the same time, however, these characteristics may constitute a limitation in terms of transferability, as similar characteristics may not be present in other consumption settings and phenomena. Therefore, it would be interesting to attempt to study and explore different and diverse consumption phenomena through a biopolitical marketing lens.

In particular, it would be interesting to examine how biopolitical marketing unfolds and develops in relation to augmented reality technologies. Augmented reality has the ability to interfere in the physical world and enhance it with digitally produced content. In this respect, it is an exceptional manifestation of the creation of new worlds and is, thus, pertinent for the materialisation of biopolitical marketing practices. The coalescence of physical and digital worlds, which blurs the boundaries between reality and hyperreality and allow humans to freely interact with and intervene in their “environment”, presents a great opportunity for biopolitical marketers and is envisaged to become a mainstay for future marketing practices. Thus, it also raises the demand for future critically inspired studies that would examine this emerging phenomenon.

In addition, the qualitative approach, the small sample size and the interpretative nature of the thesis, while serving the purposes of an exploratory study, may limit the generalisability of the findings. Given the consumption context, it is advisable
that researchers who are interested in further exploring consumers’ attitudes and reactions to self-tracking include observational data of self-tracking practices. These could include traditional ethnographic approaches such as auto ethnographic and/or videography studies.

As novel technological advancements are introduced in the market and become part of consumers’ lives, new opportunities arise for consumer research. The present study focused on self-tracking performed mainly through devices that have become known as “wearables”. Newly emerging tools and devices, which are not “worn” by users but are implanted in their bodies (“implantables”), present a great opportunity for further research, as they carry a number of ontological and biopolitical implications; not only do they enable the complete tracking of life, they also challenge and reconfigure human-machine relations.

Finally, the fourth paper examined the development of personal data markets as (consumer) empowering mechanisms. While the paper shed a critical light on these business endeavours and their empowering ability, it did little to discuss alternative approaches. Thus, as the commodification and exploitation of consumer labour persist and drive the expansion of digital capitalism, it would be prudent to examine the feasibility and effectiveness of alternative approaches to data use and governance that are in the nascent stages. As indicated in paper IV, there are emerging attempts that aim to rebalance power relations in favour of users, not through remuneration, but by developing social networks that are not based on the appropriation and commodification of users’ data. These attempts could provide a fertile empirical context for future studies.
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Self-tracking, datafication and the biopolitical prosumption of life

The aim of the thesis is to explore the extraction and appropriation of value from an increasing number of aspects of consumers’ lives. To do this, the thesis focuses on the popular consumption phenomenon of self-tracking, which allows consumers to track and quantify diverse facets of their lives. Engaging with biopolitical analyses of contemporary marketing and drawing on qualitative empirical data, the thesis contests and extends previous marketing theorisations that focus primarily on consumers’ skills and knowledge while maintaining that the entirety of human existence becomes a resource for value.

The thesis contributes to the critical marketing literature by advancing the understanding of the biopolitical nature of marketing in extracting value from consumers’ lifestyles and in the creation of consumer subjectivities. It introduces the notion of the “biopolitical prosumption of life”, which refers to the “creation of worlds” that allow and enable the development of market-aligned subjectivities, which can generate value for corporate interests. The notions of the “prosumed self” and the “prosuming self” are introduced to frame and elucidate these subjectivities. The empirical findings indicate that marketing interventions foster the development of marketing environments (“worlds”) that seek to contain consumers while allowing them to act freely, albeit in ways that augment the value that can be extracted and appropriated.