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"Made to run": Biopolitical marketing and the making of the self-quantified runner

Vassilis Charitsis

Consumer Society Research Centre, University of Helsinki, Finland

Service Research Center, Karlstad University, Sweden

Anna Fyrberg Yngfalk

Service Research Center, Karlstad University, Sweden

Per Skålén

Service Research Center, Karlstad University, Sweden

Abstract

While previous critical marketing research on co-creation has focused on how consumers' cognitive and social abilities are governed, this paper focuses on how firms' marketing strategies attempt to govern every aspect of consumers' lives. By drawing on both a bio-political framework and a study of Nike+, a marketing system for runners which Nike has developed around its self-tracking devices, three biopolitical marketing dimensions were identified; the gamification of the running experience, the transformation of running into a competitive activity, and the conversion of running into a social activity. In identifying these marketing dimensions, the study demonstrates how self-tracking affordances are

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deployed in the development of a biopolitical marketing environment that tames captures and appropriates value from different aspects of consumers' lives, including –and combining - their social behaviours, cognitive capacities and bodily conducts. This paper contributes to critical studies of value co-creation by focusing on the tamed self-tracking body as a resource for value creation, but also by demonstrating that consumers engage, through cognitive labour, in the production of the biopolitical environment that leads to their exploitation.

Keywords

Biopower, governmentality, self-tracking, value co-creation, the body, exploitation

Introduction

Marketers and consumers are increasingly engaging in direct interaction, both face-to-face and via Internet platforms. This interaction is commonly referred to as value co-creation in marketing research (e.g. Vargo and Lusch, 2008). One basic premise of this research is that the customer is no longer the passive target of firms' offerings – i.e. an operand resource – but an active contributor of the knowledge and skills that help firms to realize their offerings – i.e. an operant resource. While many marketing scholars see value co-creation as beneficial to both firms and consumers, other marketing researchers have approached co-creation from a critical perspective. These critical marketing scholars have studied how the co-creation discourse and practices govern consumer action by

producing active and entrepreneurial consumer subjects who "work" and create value for firms gratis (e.g. Bonsu and Darmody, 2008; Cova and Dalli, 2009; Zwick et al., 2008; Zwick and Bradshaw, 2016). In this study, we contribute to these critical studies of value co-creation by studying the self-tracking system Nike+.

Self-tracking has been outlined as "the regular collection of any data that can be measured about the self, such as biological, physical, behavioural or environmental information" (Swan, 2009: 509) since the ultimate aim is to translate anything that can be measured regarding human bodies and minds into data (Prince, 2014). Due to technological developments, the market for self-tracking tools and associated services has increased dramatically in the past few years, and is expected to grow even more in the future (BCC Research, 2017). Nike+ is a self-tracking system for runners which is made up of self-tracking devices that consumers use to collect physical activity data in order to monitor their performance. It is also a dedicated online platform where consumers' activity data is stored and displayed. Various social media sites, e.g. Facebook, are also integrated with Nike+, as well as off-line social activities, e.g. running groups. The system is designed and organized in such a way that consumers interact or "co-create value" both with each other and with the firm against the backdrop of their recorded physical activity data.

As will be argued, this study of Nike+ suggests that consumers' intellectual and corporeal activities are essential resources in the co-creation process, and in the development of the contemporary marketing system. With a few exceptions (Yngfalk and Fyrberg Yngfalk,

2015; Yngfalk, 2016), previous critical marketing research has mainly focused on how co-creation discourse and practices target and govern humans' cognitive and social abilities, and on how this government creates active and entrepreneurial consumer subjectivities. Moving beyond the focus on cognitive and social attributes, the aim of the paper is to investigate how firms' marketing practices construct consumers' subjectivities and contribute to capturing value from every aspect of consumers' lives. This aim will be illuminated by drawing on bio-political perspectives, including the notions of bio-power and biolabour (Foucault, 1978; Hardt and Negri, 2000; 2009, Morini and Fumagalli, 2010).

Our analysis of Nike+ suggests that self-tracking systems govern consumers by employing three main co-creating practices or marketing dimensions: (1) gamifying the running experience, (2) transforming running into a competitive activity, and (3) converting running into a social activity. Based on this analysis, the study contributes to previous critical co-creation research by demonstrating how consumers track and produce value while feeling free as they engage in "voluntary" self-tracking practices. Nonetheless, consumers' self-tracking behaviours, and subsequently their everyday physical activities, are disciplined and captured both by and within the technological boundaries set by corporate interests. The standards set by firms regarding the production of value not only require certain consumer competencies, they also demand that consumers work on their bodies in line with such standards. Thus, the body becomes a

target for intervention and improvement precisely because it is treated as a target for value creation purposes, as a site of exploitation. Conforming to neoliberal ideals, the body is seen as an enterprise that needs to be monitored and optimised in order to generate maximum returns (Cederström and Spicer, 2015). In that respect, the paper also contributes to critical studies of value co-creation by focusing on the self-tracking body as a resource for value, but also by demonstrating that consumers engage, through cognitive immaterial labour, in the creation of an environment that aims to appropriate value from their activities.

The paper is structured as follows. The theoretical background reviews previous critical co-creation research and outlines how the aim of the paper will be illuminated by drawing on the notion of biopower (Foucault, 1978; Hardt and Negri, 2000; 2009). We will then turn to the methods employed in order to carry out the research and to the findings reporting on the study of the Nike+ system. Finally, we discuss the implications of the study in relation to previous critical marketing research on value co-creation.

Theoretical Background

Co-creation and Governmentality

To analyse how marketing and co-creation practices govern humans, critical marketing scholars have invoked the notion of governmentality. Foucault (1978) argued that governmentalities are discourses that provide people with subject positions that govern

by framing the possible actions of humans. Foucault's analysis of governmentality was developed in critical sociology in order to analyse how neoliberal regimes promote a qualified freedom that produces active and entrepreneurial subjects (Dean, 1999; Rose, 1999). Inspired by these studies, critical marketing researchers have studied how marketing practices in general, and co-creation practices in particular, govern both consumers (e.g. Beckett, 2012; Beckett and Nayak, 2008; Giesler and Veresiu, 2014; Shankar et al., 2006; Varman et al., 2012) and marketers (e.g. Fougère and Skålén, 2013; Skålén et al., 2006; 2008; Skålén, 2009; 2010).

In addressing marketing in general, Shankar et al. (2006) have developed a Foucauldian critique of the neoliberal idea of consumer empowerment. They argue that marketing governs consumers via empowerment practices by turning them into subjects that are able to freely navigate by themselves through an array of consumption propositions and affordances. Hence, consumer empowerment is interrelated to the ideal of consumer freedom (Giesler and Veresiu, 2014). While a Foucauldian stance on government suggests 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) or, as Shankar et al. (2006: 1020) stress, "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". Moisander et

al. (2010: 3) also highlight the fact that marketing governmentality is exhibited not through coercion but through the range of choices available, since marketing "is not about forcing people to do something against their will but rather about structuring their possible field of action to generate sales". Therefore, the freedom forming a constitutive element of this new marketing governmentality does not actually threaten capital's concerns regarding control (Zwick et al., 2008). On the contrary, governmentality operates precisely in and through freedom since "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: 78-79).

Some critical marketers have specifically focused both on how the neoliberal governmentality inherent to co-creation practices governs consumers by fostering them to enact active and entrepreneurial subject positions and on how firms benefit from this (Bonsu and Darmody, 2008; Cova and Cova, 2012; Zwick et al., 2008; Zwick and Ozalp, 2011; Zwick and Bradshaw, 2014; 2016). For Cova and Cova (2012), the empowerment discourse is a form of governmentality that interpellates people as consumers and aims to make them actively engaged as prosumers by enhancing their responsibilities, developing their creative capacities, and mobilising their competencies. Bonsu and Darmody's (2008: 359) study of the social Internet platform Second Life (SL) exemplifies this type of governmentality analysis of co-creation. They infer that: "… 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". In that respect, "co-creation represents a political
form of power aimed at generating particular forms of consumer life at once free and
controllable, creative and docile" (Zwick et al., 2008: 163). Cova et al. (2011) elaborate
by arguing that co-creation is a deliberate form of marketing governmentality that not
only aims to exploit the free labour of the consumer but also to minimize potential risks
regarding undesired consumer behaviour. Again, this is not achieved through any form
of coercion, or top down disciplinary mechanisms, but through freedom, albeit a freedom
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" (Zwick et al., 2008: 165). Hence, while co-creation is based on
the ideal of freedom, it has not decreased, merely changed, capital's capacity to control
both production and consumption, as well as producers and consumers (Cova et al., 2011).

While critical marketing studies have elaborated upon understanding the control and
government of consumers and employees under neoliberal market regimes, in particular
co-creation regimes, they have predominantly focused on how the intellectual side of
human subjectivity is governed. Less attention has been devoted to the government of the
body and, in particular, how the government of the physical and intellectual body is
intertwined. One explanation for this concerns the focus of the managerial value co-

creation discourse where the discussion about how consumers' knowledge and skills – operant resources in the language of Vargo and Lusch (2008) – is a key concern (cf. Bonsu and Darmody, 2008; Cova et al., 2011; Zwick et al., 2008). Another explanation concerns the fact that dominant interpretations of Foucault's work on governmentality, by critical sociologists (Dean, 1999; Rose, 1999), who inspired critical marketing researchers, have emphasized the government of the intellectual body. While the body is by no means absent from governmentality analyses, it plays a much more prominent role in another notion that Foucault developed, i.e. that of biopower.

The notion of biopower has recently inspired critical marketing scholars (see Zwick and Bradshaw, 2014; 2016; Zwick and Ozalp, 2011) to introduce and develop the concept of "biopolitical marketing" in order to analyse how firms favour co-creation practices in attracting and exploiting "the cultural, technological, social, and affective labour of consumers" (Zwick and Bradshaw, 2016). These analyses have made important contributions to critical marketing thought; however, limited attention has been paid to the role of the body, as physical labour has not been the main interest of this research. In this paper, we build on this body of work since we intend to examine, through our study of the Nike+ self-tracking system, how consumers' bodies, as well as their cognitive skills, are targeted and governed by firms' co-creation strategies. To affirm our theoretical grounding, we will first review pertinent works on biopower in the following section.

Biopower and biopolitical marketing

In his lectures at *Collège de France* in the middle of the 1970s (Foucault, 2003; 2007), Foucault introduced the notion of biopower. Through the concept of biopower, Foucault (1978) highlighted the human body as a site of power exertion, but also of 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. As he has explicitly stated "for capitalist society, it was biopolitics, the biological the somatic the corporal that mattered more than anything else" (Foucault, 2000: 137). Various scholars have discussed the notions of biopower and biopolitics, contributing and revising Foucault's original analyses (e.g. Agamben, 1998; Hardt and Negri, 2000). Hardt and Negri, who we mainly draw upon in this study, argue that Foucault's analysis is 'unfinished' as he did not diagnose that late capitalism engendered a new form of biopolitics characterized by the disintegration of the division between economy and politics, between production and reproduction, and between working and non-working life (Lemke, 2011). On the other hand, recent autonomist Marxist analyses examining the prevalence of immaterial forms of labour provide a pertinent explanation of the contemporary biopolitical aspects of power, albeit a partial explanation since they focus exclusively on intellectual aspects, i.e. knowledge, language, communication, ignoring the corporeal ones (Hardt and Negri, 2000). Drawing on, but also criticizing both Foucault's and pertinent Marxists' analyses, Hardt and Negri (2000: 24) attempt to synthesise these approaches conceptualizing biopolitics as a form of power that is "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) 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, e.g. the subsuming of the physical body into production processes. While in the past, the division between manual and intellectual labour has been an emblematic feature of capitalism (Guéry and Deleule, 2014), contemporary neoliberal capitalism seeks to break down these dichotomies (Morini and Fumagalli, 2010). Thus, the separation between the body and the mind becomes obsolete as both the mind and the body become involved in value productive processes making the entire human existence productive (Morini and Fumagalli, 2010).

Hence, according to Hardt (1999: 98), biopower becomes "the power of the creation of life; it is the production of collective subjectivities, sociality and society itself". More concretely, Hardt and Negri (2000) suggest that biopower is commonly exerted with the help of machines that directly target the brain (e.g. communications systems) and the body (e.g. monitored activities such as self-tracking tools). Based on this understanding, Hardt and Negri (2000: xiii) 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". Thus, in producing value for

capital, biopolitical production requires and incorporates the entirety of the body's capabilities, desire, language, affect and style (Read, 2001)

Hardt and Negri (2009) assert that economic production (i.e. marketing) is increasingly becoming biopolitical as it is linked to social relations and forms of life. This is exemplified by self-tracking, which manages to instantly capture these forms of life and derive value from the human body through the production of "digital biocapital" (Lupton, 2016). Similarly, Fumagalli (2011) maintains that contemporary capitalism has transformed into "biocapitalism" since it always targets new areas of human and social life to subsume and commodify, while life itself becomes value. This transformation requires and engenders a new form of labour, "biolabour", which encapsulates "the ensemble of the vital cerebral-physical faculties of human beings" (Morini and Fumagalli, 2010: 240). Hardt and Negri (2000) also argue that, in the age of biocapitalism, all time is productive time, due to biopolitical production being constant and uninterrupted precisely because it encapsulates all human activity and behaviour. Following Hardt and Negri's analysis of biopolitical production, Zwick and Bradshaw (2016: 95) employ the term biopolitical marketing to "conceptualize strategies aimed at capturing and managing consumers in intensive networks of entertainment, production, consumption, and surveillance".

As biopolitical production encompasses the production of subjectivities, forms of life, relations, affects, communication, and networks, capital has a diminished role to play in

production processes as it aims to subsume and expropriate value that is largely produced externally to it; in many instances, by means of empowered yet unpaid consumers engaged in co-creation practices (Cova et al., 2011). What makes biopolitical production attractive is the fact that exploitation can occur with capitalists investing limited resources in the production process (Hardt and Negri, 2009). Adding to critical analyses pertaining to consumer empowerment, Zwick and Ozalp (2011) explain that 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. This is where marketing comes into play as it strives to guide consumers' biopolitical production in such a way that it will allow capital to maximize the economic gains made from the appropriation of that production.

In this sense, marketing becomes biopolitical as it tries 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 and Ozalp, 2011: 236). However, exactly how consumers' intellects and physical bodies, in their everyday lives, become a resource for marketing is something that needs more explanation in critical marketing research in general, and in biopolitical marketing research in particular. So far, the main focus has been on the role of consumers' immaterial forms of labour.

Accordingly, we will apply a biopolitical framework to our study of Nike+, recognizing how contemporary marketing makes use of consumers' capacities, including their bodies as potential market recourses, and bridging the 'unnecessary' separation of consumers' minds and bodies (cf. Morini and Fumagalli, 2010).

Method and Case

Our choice of empirically exploring the biopolitical nature of contemporary co-creation-informed marketing, by studying Nike+, is based on the fact that self-tracking provides a relevant and appropriate locus for the present study since the quantification of the self is premised on monitoring and recording human activities. Hence, self-tracking can be considered a biopolitical apparatus that captures and valorises life, including consumers' bodies and bodily activities (cf. Zwick and Bradshaw, 2016; Yngfalk, 2016).

Fitness activities and running in particular are among the most popular activities done by users of self-tracking devices, thus constituting a pertinent context for our study. Nike has developed a comprehensive self-tracking system generally known as Nike+. It comprises several self-tracking apps and devices (Nike+ Running, Nike+ Training Centre, Nike+ Move, Nike+ Sportswatch, Nike+ FuelBand) equipped with technological affordances, online platforms and social media networks, in addition to local running clubs located all over the world.

For the purposes of this study, as non-participant observers, we joined, followed and collected data from Nike+ Facebook groups and Twitter accounts and hashtags for a period of one year (2014). The first author of this paper did all the data gathering but, for ease of presentation, the pronouns "we/our" will be used throughout the paper. Collecting and examining online consumer interactions and narratives is an appropriate method of understanding the development of contemporary markets (Harrison and Kjellberg, 2016; Rokka, 2010), which involves investigating how companies invent and develop new online marketing practices in order to facilitate and control consumer experiences and interactions (Catterall and Maclaran, 2002), as well as how brand communities enhance consumer engagement and create value for firms (Schau et al., 2009).

Analysis of the collected Nike+ data was guided by our aim of exploring how consumer subjectivities and associated lifestyles, incorporating both cognitive and bodily aspects, are encouraged and shaped by co-creation-based marketing interventions. Analysis was carried out in a continuous and iterative manner that followed the principles of the emergent design and the constant comparative method (Strauss and Corbin, 1990).

We started our data analysis by implementing open coding, identifying the emerging themes and concepts of the data collected within the Nike+ tracking system. The next part of the data analysis process consisted of axial coding, with initial concepts being grouped and categorized accordingly. This allowed us to identify the diverse set of marketing interventions employed at Nike+, and to explore how these are used to promote specific

subjectivities and lifestyles. We have identified three main features of the Nike+ system and the NikeFuel technology, involving the providing of virtual trophies-badges, marking progress with milestones and developing and participating in challenges and competitions. We have followed how users respond to these interventions and how they track, share and compare their activities. Drawing on our analytical framework, we have divided, via processes of abstracting and theorizing (Spiggle, 1994), the empirical categories into three main, distinct but interrelated analytical themes, which jointly comprise the overall biopolitical co-creation-based marketing strategy of Nike+. These include i) the transformation of the tracked activity into a competitive activity, ii) the gamification of self-tracking, and, finally, iii) the conversion of the tracked activity into a (virtually) social activity. As will be demonstrated, the mixture of these market dimensions results in the mobilization of consumers' corporeal and cognitive capacities during value co-creation processes.

Findings

A fundamental component of the overall Nike+ system is NikeFuel, which is a proprietary metric that measures any kind of physical bodily activity and turns it into NikeFuel points. It decodes all kinds of personal activities into a unified measurement unit that enables users to compare their performance with one another.

It is common for users to post about NikeFuel online, while a number of hashtags push users into sharing their NikeFuel results. Several indicative posts on the NikeFuel Twitter account demonstrate how Nike encourages users to stay active: i.e. "There's proof in numbers", "Wear it. Earn it. Show it". Thus, users are pushed into tracking their physical activities using Nike+ devices, with several users responding regularly to NikeFuel tweets and sharing either their day-to-day NikeFuel goals or the NikeFuel points they have earned: "I've got 3 more hours to go. I WILL score a GOAL today!". Many users also share their individual goals and progress results as a way of comparing their progress and performance with others. Thus, an essential part of NikeFuel concerns transforming individual physical activities into general measurements, enabling social large-scale comparison and competition, and being interwoven with a number of the other marketing principles of Nike+, as will be showcased later in this section.

Virtual Trophies-Badges

Virtual badges and trophies that users earn on the basis of their tracked training activities, as well as the corresponding NikeFuel points earned, comprise a vital feature of Nike+. On the Nike+ platform, there is a virtual trophy collection where users can see all the badges and trophies they have collected.

The importance that users place on collecting virtual badges and trophies is demonstrated by the plethora of online posts referring to this dimension of Nike+. Most commonly,

users express pride in managing to complete certain running activities and receiving new badges, e.g. on Facebook Nike+ groups. An indicative example of this is a user who posted his "Dragon Badge" for running at the Chinese New Year, along with his dog, along with the caption: "Earned mine. So did the pup". Another user posted two different versions of the same badge, asking the other members to vote for the one they preferred: "A short run to win my Dragon Badge, they look different on the phone and the site, which one do you prefer?" The "Chocolate Heart Badge", which is the badge users receive for running on Valentine's Day, was also a popular badge among users, as demonstrated by lots of different posts on the Nike+ Facebook group: "Best jewelry!" wrote one user while posting her chocolate heart badge, to which another user replied: "I can't NOT get mine ... off to run in a bit!".

Receiving a badge seems to be important to some users in the sense that they make sure to be active on a day when they know there is a badge to collect: "Just a streak today ... I can barely move after 17k in minimal shoes yesterday, but I wanted that badge", but also when reminding others that they can earn a badge: "Hey tribe! Don't forget to run today ... there's a Nike Valentine's badge!!!!". The importance of badges is also evident from posts expressing frustration at not receiving badges or losing them from their trophy collection: "Have any of you ever had some of your "trophies" and/or "milestone" icons just disappear from your trophy list? I'm missing 4 trophies that I once earned and I never received my birthday extra frosting for running on my bday?"

Apart from rewarding users with virtual trophies and badges, the progression of their tracked activities is also marked by various milestones, which constitute another important feature of the Nike+ system.

Milestones

Milestones can relate to the NikeFuel points earned (in total or over a certain period), to the number of kilometres users have run using Nike+ activity trackers, or to being active for a specific time period. Users are also able to reach different levels based on the total number of kilometres tracked using Nike+ devices. The system and these levels are playfully designated using different colours (0-50 km = yellow level, 51-250 km = orange level, 251-1000 km = green level and so on). Every time users reach a higher level, the app on their smart device also changes colour. Those active online tend to post their achievements and express their satisfaction: "Forgot to post this! Finally a purple member!!!! #cantstopwontstop", "I hit the purple level on Saturday and a year of continuous Nike+ tracking activity on Sunday!", "New milestone new colour this morning. Happy man here. Enjoy your running everyone".

Reaching a specific milestone is also something that users are eager to share with each other. A milestone can either refer to the level (different colours) or to the number of miles/runs reached on Nike+: "Made it to 200 miles on my app this weekend. One goal done.", "Just broke 600 miles. Going to join the blue club very soon!", "I'm blue and it feels good!". In addition, users frequently also post about reaching a "Nike+ anniversary": "Today was my 1st anniversary with Nike+. Sadly it ended with a run that made me realize my knee needs a holiday. No more runs for me for at least 2 weeks". Milestones seems to be an important incentive for users to become more active and to keep tracking their activities in order to attain new milestones. This is apparent by the volume of online posts that users make referring to milestones.

Competition and challenges

Challenges are also a significant part of the Nike+ experience in the sense that they not only increase the competition between users but also enhance further interactions between users, turning running into a (virtually) communal activity.

Many users set up challenges to which they invite their friends or other Nike+ users. On the Nike+ app, users can see a classification table of the challenges they are taking part in, and can comment on their own progress or that of other users. On the Nike+ Facebook group, many posts are created by users looking for challenges: "Looking forward to the February challenges ... Friends and challenges (reasonable ones) will be accepted!!!",

"Hey group - I'm new here. I've been trying to find some competition to push me even further. I've only been running for a year, losing 40 pounds during the process, but here are my accomplishments so far". As such, there are many examples of users taking various social initiatives, e.g. designing and posting their own challenges as a way of inviting other uses to take part.

In addition, there are also users who create a challenge and then post it online in order for other member to see it and join in: "Had a few requests for the challenge. I'm going to create another one. 400 miles June 1 to Sep 1. Anyone interested, send me your Nike+ id. I'll send out invites on May 26th", "Any takers?????" "Who is up for a March challenge? Let me know by posting your screen name here. I will create the challenge with a starting date of March 2nd to give you time to see and share your info. And time for me to add you in the challenge. Once I create the challenge you won't be able to be add unless we are friends lol... in the Nike+ app""

Users tend to post their results and how they are progressing through a challenge, especially when they are doing well: "Let's not stop. I'm so close to winning my first challenge in my life". But they can also post about failing a particular challenge: "Looks like I'm failing in my January challenges ... hate these injuries… anyone wanna trade hips and knees?".

The competitive spirit of the Nike+ experience is also promoted via leaderboards that rank users based on their self-tracked activities. The "friends leaderboard table" ranks friends on Nike+ according to the distance they have tracked using Nike+ in the past week or month. Again, Nike uses social media in order to foster competition between friends on Nike+, as the following tweets by the company show: "They may be 'friends' but they're adversaries on the leaderboard", "Outhustled all your friends? Take on all of ours". Users post screenshots of the leaderboard, especially if they are ahead of everyone else, commenting on their positions: ""Finally at the top of the leader board though expecting username, username and username to pass me any time now!", "That wasn't a bad week for running!! Bring on the next", "Neck and neck this month bro".

In summary, Nike+ devices and tools allow users to self-track several of their day-to-day physical activities. These tools are supplemented by a number of technological affordances that further motivate users into becoming more engaged in both fitness activities and self-tracking practices. Specifically, we have identified competitions, milestones, and virtual trophies as the main features employed by Nike+ to attract and retain, but also govern, users' active involvement. While these features may be seen as common marketing actions, we argue, based on our biopolitical perspective, that the Nike+ marketing features actualize and promote neoliberal standards that come to govern consumers' minds and bodies, in turn creating a more effective and profitable self-tracking system.

Analysis: Biopolitical marketing dimensions of Nike+

As demonstrated in the Findings section, Nike+ works in different ways towards enhancing the running experience as a way of maintaining and improving the self-tracking data from individuals' activities and performance. In other words, Nike facilitates and collects self-tracking data, or bio-data, from users' activities, entailing that psychical performance is transformed into pure data using the Nike+ technology. The technology acted upon by Nike+ consumers during their socialization with other consumers is a convenient, social, and playful space for performance and overall wellness improvement. Nike+ and the interactions it spurs among consumers constitute an example of how new technology has enabled corporate interests to govern and guide not only individuals' but also populations' activities (Foucault, 1978; Hardt and Negri, 2000). This is also an example of how consumers conduct biolabour (Morini and Fumagalli, 2010), via tracked physical activities leading to the generation of data, but also via cognitive and social processes of engagement and interaction, both with the technology and with each other. This suggests that biopolitical marketing at Nike+ works through a series of interrelated intervention processes which jointly seek to construct a self-governing, voluntarily acting, and socially self-tracking consumer (cf. Zwick and Cayla, 2011) whose corporeal and cognitive capacities are mobilized during value-producing processes. In the following section, we will elaborate more on the biopolitical marketing

dimensions identified in Nike+ and analyse how these are collectively mobilized in the "making" of the self-quantified subject.

Competitiveness

The most essential principles of the Nike+ system concern the Nike+ Fuel function, which decodes and standardizes all kinds of physical activities into a standardised measurement unit. This enables a variety of facilitation activities which are all aimed at enhancing users' motivation and commitment to running. Consequently, Nike+, like other similarly organized online communities (cf. Schau et al., 2009), is seeking to facilitate engagement (regular physical training and the uploading of results) by assigning various rewards and a diversity of virtual trophies. Thus, NikeFuel points, and the associated virtual rewards and badges, can be seen as biopolitical tools that target both the body (by means of users becoming more physically active) and the mind (by means of users becoming more engaged with both the technological affordances of the system and with other users).

Overall, users respond to this kind of involvement with feelings of pride but also with the constant need to remain physically and socially active. This notion of constant self-improvement is demonstrated by users' excitement at Nike's promotions regarding various challenges and competitions. As demonstrated in the findings, users can compete with others users as regards who has reached the highest number of NikeFuel points, even when performing different training activities. Accordingly, competition seems to be

inextricably linked with the Nike+ experience, as users constantly enter into competitions with other users, or with themselves, thus promoting their bodily improvement and performance.

The standardization of data in Nike+, and the facilitation of different kinds of competitions and comparisons of individuals' data, is an essential key of biopolitical marketing in the sense that it effectively promotes the importance of constant improvement and the creation of subjectivities that are active and entrepreneurial (Dardot and Laval, 2014; Lupton, 2013). As demonstrated, this production of competitive subjectivities also includes the creation of a 'competitive' body that resonates with the neoliberal norms of the active, slim, and successful body (see Gurrieri et al., 2013; Yngfalk and Fyrberg Yngfalk, 2015). Competition and performance fuel the development of the neoliberal subject since discourses of pleasure compel people to attain a body that will allow them to exceed their corporeal capacities for production and pleasure (Dardot and Laval, 2014).

Gamification

The findings further suggest that an essential element of Nike+ is communicating and interacting with other users in a fun and playful manner. The design of Nike+ also incorporates features such as milestone achievements, for continuous self-tracking, and also awards cool virtual badges to high-performing users. These (virtual) reward

mechanisms increase users' engagement with the technological affordances of the system itself, but also their interactions with other users, enhancing the community experience of self-tracking (Schau et al., 2009). While gamification is not a new phenomenon, the proliferation and popularity of digital and smart technologies, technologies which are able to collect and analyse vast datasets, has provided a fertile ground for gamification to flourish and to enter into all aspects of our everyday lives (Whitson, 2013). As our study of Nike+ suggests, gamification fosters consumers' biolabour, both immaterial biolabour pertaining to enhanced engagement both with other users and with technological affordances, and physical biolabour pertaining to increasingly tracked physical activities that lead to more data being generated.

Gamification through self-tracking, however, is also inextricably linked to surveillance as it manages to process large numbers of data measurements and feed them back to users in simplified forms (French and Smith, 2013). An indicative example from Nike+ is the different levels that users can reach, based on their tracked activities, which are denoted using different colours. Although gamification is connected to surveillance practices, Nike+ manages to make these practices pleasurable, enjoyable and thus acceptable, with most users saying that they happily track and assess their physical accomplishments.

Accordingly, gamification fosters the development of playful subjectivities that lead users to collect and share personal information that can be used to engender behavioural and bodily improvement and change (cf. Whitson, 2013). Many users demonstrate

performance improvements, and how self-tracking and sharing their results and experiences has helped them to progress, when it comes to both the number of activities and the quality of their performance. Yet, gamification effectively promotes self-governance whereby people make use of their highest aspirations and capacities regarding self-care and self-development (Whitson, 2013). There are also cases where users have pushed themselves too hard, in order to achieve better results, resulting in physical discomfort, pain, and even injury. While through self-tracking corporeal activities become abstracted and experienced through their datafied representations, pain restores the corporeality of the experience, forcefully bringing the body back to the centre of attention (Scott et al., 2017). Moving beyond the pleasurable factor of gamification, by putting the focus on the productive labour it generates, gamification effectively supports self-governing entrepreneurial consumers who are made eager to improve themselves in line with neo-liberal market-based norms and standards (Till, 2014), even if this leads to physical suffering. Indeed, NikeFuel not only measures the performance of life (Lupton, 2015), it also creates the 'voluntary' disciplining of the body.

Socialization

As demonstrated in the findings, Nike+ is an illustrative and contemporary example of how market offerings transform physical activity into social activity by linking self-tracked running to social interactions (Lupton, 2014a). This is done by a variety of means within the Nike+ system, e.g. using the multiple accounts, pages and groups developed

across different social media platforms. Accordingly, The Nike+ system has been designed and created by Nike marketers as a social medium whereby users can add and interact with friends. For example, users notify their Facebook friends when they are about to start on a new run in order to receive encouragement ("cheers"), posting their results online after they have completed a run.

As highlighted by Lupton (2015), for example, self-trackers such as Nike + users are often keen to use social media platforms to share their data, interact with each other, exchange ideas and become active members of specialized communities of like-minded users. Nike+ has succeeded in making self-tracking a personal duty that is also supported and sustained by other social encounters (e.g. Twitter, Facebook). Being "at home" with fellow Nike+ users on social media groups, users become even more active in sharing and inviting others to join in with and sign up for various activities and challenges, thus engaging in value creating activities for the brand.

While the biopolitical dimension of self-tracking has been addressed before (e.g. Lupton, 2014b), we continue the discussion by examining how marketing, in its biopolitical form, becomes entangled in technological affordances and untangled and realised by consumers themselves. The development of social interactions within a cheerful yet highly competitive context of self-quantification, along with discourses relating to new technology, the entrepreneurial self, and the notion of the productive body, provides meaning to the practice of self-tracking and qualifies Nike+ as a biopolitical marketing

system. Accordingly, self-tracking practices can be seen as a novel manifestation of biopower which aims to enhance our bodies' capacities to respond to market signals (Mirowski, 2013) by fuelling the desire for self-improvement but also by allowing market monitoring of the population and by the commercial use and exploitation of the collected data (Lupton, 2016).

Discussion

Self-tracking systems such as Nike+, and other similar, contemporary technological marketing apparatuses, are representations of biopolitical technologies that eventually engender new forms of biopower by targeting the bodies and minds of consumers (Hardt and Negri, 2000). As will be discussed below, through "the tamed self-tracking user" and "the productive self-tracking body", this is a process which is highly dependent on the creation of a virtual space for 'enjoyable control' and the governance of consumers' bodies.

The tamed self-tracking user

Biopolitical marketing goes against the traditional disciplinary logic of marketing which dictates and controls consumers' behaviours as it gives consumers free rein (or at least the impression of it) to consume, but more importantly to autonomously produce. On the other hand, it is this very independent creativity, this autonomic production which (ostensibly) takes place in the wild (Halberstam, 2013), outside the direct influence of

marketers, that the latter strive to appropriate and subsume (Zwick and Bradshaw, 2016). Accordingly, social media marketing represents the epitome of biopolitical marketing as it is in the milieu of social media where marketing succeeds in reaching, influencing and controlling consumers by giving the impression that it is not attempting to do any of these things (Zwick and Bradshaw, 2016). Indeed, the "laissez faire nature of social media" (Dadashzadeh, 2010: 84) provides a fertile space for marketing to reconfigure itself as unmarketing (Zwick and Bradshaw, 2014), as it offers consumers the illusion of freedom, autonomy and empowerment (Bonsu and Darmody, 2008; Shankar et al., 2006; Zwick et al., 2008), while the roles of consumers and marketers simultaneously become blurred. Examining the political economy of Web 2.0, Fuchs (2011) argues that capital accumulation is contingent upon the combination of surveillance and prosumption that allows the appropriation of knowledge labour. In the case of self-tracking using Nike+, we see an expansion of this model since surveillance and prosumption are still dominant forces in the capital accumulation of even more aggressive exploitation of labour that incorporates both knowledge and physical labour, with the interplay between them extending labour across all aspects of human existence.

A self-tracking environment may give the impression of being an even "wilder" environment that enhances users' agentic capacity to act. However, our analysis of Nike+ suggests that the exact opposite occurs. Based on our investigation of Nike+, we argue that a self-tracking system is nothing like "a wild place that continuously produces its

own unregulated wildness" (Halberstam, 2013: 7). On the contrary, it is a controlled and controlling environment wherein the various technological affordances not only aim to produce specific behaviours but also, more importantly, aim to capture these behaviours in the form of data. Thus, self-tracking technologies are not to be seen as neutral or independent entities but as biopolitical tools facilitating certain practices and prohibiting others (cf. Hardt and Negri, 2000).

In that respect, the seemingly wild nature of a self-tracking system such as Nike+ is, in fact, a wilderness confined by virtual technological fences that take the form of playful interventions and caged-in databases. Thus, while biopolitical production is a strong indication that we have undergone a transition from disciplinary to "post-disciplinary regimes (Weiskopf and Loacker, 2006), or what Deleuze (1992) calls "societies of control", we find evidence that disciplinary forms of control are still in place. This supports Hardt and Negri's (2000: 23) assertion that, while control may now be exerted beyond the disciplinary enclosures of traditional institutions, the society of control can be "characterized by an intensification and generalization of the normalizing apparatuses of disciplinarity that internally animate our common and daily practices".

Our investigation of Nike+ not only demonstrates that traces of disciplinarity can be found within a self-tracking system but also that the technological setup makes consumers themselves the engineers of these disciplinary mechanisms. This allows marketing (and marketers) to take a behind-the-scenes role as consumers run free, albeit within the

controlled environment of the self-tracking system, wild but still disciplined by processes that are orchestrated by the consumers themselves. Thus, we see that gamified technological affordances control consumers by "empowering" (Giesler and Veresiu, 2014; Shankar et al., 2006) them to run the marketing system, enhance its value, and even carry out work that is usually done by marketing professionals (Cova and Dalli, 2009), while simultaneously being under constant surveillance. In that respect, consumer surveillance not only becomes an exemplary form of biopower (Coll, 2013), biopolitical marketing manages to make, via gamified marketing techniques, surveillance enjoyable for consumers who not only allow their lives to be placed under constant corporate surveillance but who also actively engage in the surveillance themselves. To a large extent, surveillance targets the human body, which it breaks down, abstracts, and transforms into data points, thus creating, in essence, a virtual "data double" which is more amenable to control and responsive to market interventions (Haggerty and Ericson, 2000) and which thus becomes more productive.

The productive self-tracking body

Self-tracking has indeed become a social endeavour (e.g. Lomborg and Frandsen, 2015; Lupton, 2014a) that has transformed fitness activities into social activities and a matter of leading a healthy lifestyle (Lupton, 2015). In addition, our study also suggests that the responsibility for the construction of this social fabric, which will support and attract consumers into marketing programmes, like Nike+, is essentially placed on the users

themselves since these are not only encouraged to become active self-trackers but also actively engage with each other in social media and exchange experiences, inspiring and supporting each other. Although these social constructs and relations may seem (and may be) rather loose, and even superficial for some of those involved, this does not negate the fact that users are expected to, and do, engage in the biopolitical production of a (consumer) social milieu (cf. Zwick and Bradshaw, 2016). In other words, biopolitical marketing relies on the construction and appropriation of the (corporate) common (cf. Hardt and Negri, 2009), which is premised not just on the personal labour of individual consumers but also on social cooperation, or on what Marx (1867) called social or collective labour.

The importance of companies acting to cultivate and direct the entrepreneurial, competitive and value creating abilities of consumers is often highlighted during critical marketing discussions (Bonsu and Darmody, 2008; Zwick et al., 2008; Zwick and Bradshaw, 2016). Our analysis of Nike+ also demonstrates the continuous construction of consumers' competencies and abilities, as well as how the context of self-tracking can be seen as a 'tipping point' as regards how other similar technologically-driven marketing programmes can reinforce elements of enjoyable control through 'personal' competitiveness, in turn generating even more dedicated users and 'endless' consumer data productivity.

Our study suggests that consumer productivity, or biolabour, also involves disciplinary bodily work in which consumers adopt and adjust their bodies in order to correspond to the contemporary bodily ideals of having a strong, high-performance body (cf. Lupton, 2013; Yngfalk and Fyrberg Yngfalk, 2015). In our study of Nike+, this is illustrated, for example, by users complaining about bodily complications and expressing an inability to engage in self-tracking since bodily injuries entail that they are no longer able to share and provide numbers. In this sense, self-tracking represents a manifestation of a "biopolitics of the self" which treats the body as being amenable to improvement in line with neoliberal tenets like being competitive, productive and healthy (Ajana, 2017) since both mind and body are treated as economic resources (Davies, 2011). At the same time, the self becomes saturated (Gergen, 1991) by technological affordances that include social networks and a wide array of relationships and interactions with other self-trackers, as socialization only becoming meaningful and valuable when it enables individuals to attain ultimate brain and body fitness levels (Davies, 2015). Thus, our biopolitical analysis of self-tracking on Nike+ brings into sharp relief how people's lives and bodies are systemically targeted and governed by marketing programmes in order to add value to contemporary capitalism. For instance, this suggests the need to broaden the view of consumer competence and consumer agency, and to critically investigate how the body is 'put to work' by marketers in order to expand the scope of contemporary markets.

Conclusion

The present study contributes to critical marketing research by elaborating both on the biopolitical perspective used in marketing (Zwick and Ozalp, 2011; Yngfalk and Fyrberg Yngfalk, 2015; Zwick and Bradshaw, 2016) and on research that has analysed value co-creation as a form of governmentality (e.g. Bonsu and Darmody, 2008; Zwick et al., 2008). By investigating the Nike+ system, which is a contemporary conjunction of social media platforms and self-tracking affordances, our study demonstrates how various marketing interventions govern consumer interactions and activities – or value co-creation practices – creating active and prudent consumer subjectivities with competitive and neoliberal ideal bodies. This government is actualized via three interconnected biopolitical marketing dimensions within the Nike+ system*: i.e. the promotion of competition, the gamification of the running experience, and the reinforcement of social interactions.* As demonstrated, these marketing dimensions are biopolitical since they shape consumers' everyday lives by governing specific consumer subjectivities, including the optimization of consumers' bodies.

In relation to studies of co-creation as consumer work (Cova and Dalli, 2009), our study shows how self-tracking technologies augment the exploitation of the value of productive consumption activities. This is firstly achieved via the valorisation and commodification of the generated data as users turn into constant digital prosumers (Charitsis, 2016), secondly via encouraging users to generate, develop, and manage the very biopolitical environment leading to their exploitation, and thirdly via users encouraging other

consumers to actively engage with the self-tracking system, thus enhancing both the production and consumption of that system.

In addition, we also contest co-creation discourses, but also critical readings of these studies drawing on governmentality, which have mainly focused on consumers' intellectual capacities as operant resources for market(ing) interests. As demonstrated, the Nike+ system is an illustrative example of how consumers' biolabour is created in the marketplace and how it is 'both corporeal and incorporeal', leading to the profound integration (and exploitation) of consumers' bodies and minds for value creation. As such, our study shows that the primacy of operant over operand resources becomes superficial (Campbell et al., 2013) since, from a biolabour perspective, it is the entire human existence, including the body and mind and more importantly the interplay between them, that is treated as an operant as well as an operand resource.

Indeed, Nike+ and similar marketing systems are premised on the appropriation of consumers' cognitive and corporeal biolabour. A key mechanism for the appropriation of consumers' biolabour is interventions seeking to create 'enjoyable control', whereby consumers act 'freely' but always in alignment with the prescriptions of the marketing system. In addition, the ultimate production of biolabour concerns engaging consumers to such an extent that they invest in the system using their bodies as resources, whereby they align their bodily conducts with the normative principles of the marketing programme.

The advanced appropriation of consumers, something that seems to be increasingly symptomatic of contemporary markets, further highlights the value of the biopolitical perspective and the importance of overcoming the separation between consumers' minds and bodies when it comes to understanding how consumers' subjectivities are constructed and governed by marketing interests (cf. Morini and Fumagalli, 2010). Thus, by elaborating more broadly on the implications of marketing interventions in the governing of consumer subjectivities, our research also responds to governmentality-inspired studies that have critically scrutinized lauded marketing notions of consumer empowerment and freedom (cf. Beckett 2012, Cova et al., 2011; Moisander et al., 2010, Shankar et al., 2006), as well as to more recent scholarship that advocates the more politically-driven analysis of consumer agency (Denegri-Knott and Tadajewski, 2016). Finally, we encourage future studies to continue to critically investigate the construction of consumer subjectivities in the marketplace by elaborating on the notion of biopolitical theory, e.g. by investigating the gendered aspect of the biopower of digital and biological technologies in which women's bodies tend to be seen as essential generators of biovalue and thus exploitation (cf. Fotopoulou, 2016).

References

Agamben, G. (1998) *Homo Sacer: Sovereign Power and Bare Life* (Trans. D. Heller-Roazen). Stanford, CA: Stanford University Press

Ajana, B. (2017) 'Digital Health and the Biopolitics of the Quantified Self', *Digital Health* 3: 1-18

BCC Research, (2017) 'Health Self-monitoring: Technologies and Global Markets', Available at: https://www.bccresearch.com/market-research/healthcare/health-self-monitoring-technologies-markets-report-hlc185b.html

Beckett, A. (2012) 'Governing the Consumer: Technologies of Consumption', *Consumption Markets & Culture* 15(1): 1-18

Beckett, A. and Nayak, A. (2008) 'The Reflexive Consumer', *Marketing Theory* 8(3): 299-317

Bonsu, S.K. and Darmody, A. (2008) 'Co-creating Second Life Market—Consumer Cooperation in Contemporary Economy', *Journal of Macromarketing* 28(4): 355-368

Campbell, N. O'Driscoll, A. and Saren, M. (2013) 'Reconceptualizing Resources: A Critique of Service-Dominant Logic', *Journal of Macromarketing* 33(4): 306-321

Catterall, M. and Maclaran, P. (2002) 'Researching Consumers in Virtual Worlds: A Cyberspace Odyssey', *Journal of Consumer Behaviour* 1(3): 228-237

Charitsis, V. (2016) 'Prosuming (the) Self, *ephemera* 16(3): 37-59

Cederström, C. and Spicer, A. (2015) *The Wellness Syndrome*. Cambrige: Polity Press

Coll, S. (2013) 'Consumption as Biopower: Governing Bodies with Loyalty Cards', *Journal of Consumer Culture* 13(3): 201-220

Cova, B. and Cova, V. (2012) 'On the Road to Prosumption: Marketing Discourse and the Development of Consumer Competencies', *Consumption Markets & Culture* 15(2): 149-168

Cova, B. and Dalli, D. (2009) 'Working Consumers: the Next Step in Marketing Theory?', *Marketing Theory* 9 (3): 315-339

Cova, B., Dalli, D. and Zwick, D. (2011) 'Critical Perspectives on Consumers' Role as 'Producers': Broadening the Debate on Value Co-Creation in Marketing Processes', *Marketing Theory* 11(3): 231-241

Dadashzadeh, M. (2010) 'Social Media in Government: From eGovernment to eGovernance', Journal *of Business & Economics Research* 8(11): 81-86

Dardot, P. and Laval, C. (2014) *The New Way of the World: on Neoliberal Society*. London: Verso Books

Davies, W. (2011) 'The Political Economy of Unhappiness', *New Left Review* 71: 65-80

Davies, W. (2015) *The Happiness Industry: How the Government and Big Business Sold us Well-Being*. London: Verso Books

Dean, M. (1999) *Governmentality: Power and Rule in Modern Society*. London: Sage

Deleuze, G. (1992) 'Postscript on the Societies of Control', *October* 59: 3-7

Denegri-Knott, J. and Tadajewski, M. (2016) 'Sanctioning Value: The Legal System, Hyper-Power and the Legitimation of MP3', *Marketing Theory* 17 (2): 219:240

Fotopoulou, A. (2016) 'Feminism in the Era of the Quantified Self: Agency, Labour and Future Markets', in *The 17th Annual Conference of the Association of Internet Researchers*, October 5-8. Berlin, Germany.

Foucault, M. (1978) *The History of Sexuality, Volume 1: An Introduction*. (Trans. R. Hurley). New York: Pantheon Books

Foucault, M. (2000) 'The Birth of Social Medicine' In *Power: Essential Works of Michel Foucault vol. 3:* 134–156. New York: New Press

Foucault, M. (2003) *"Society Must Be Defended": Lectures at the Collège de France*, *1975-1976*. (Trans. D. Macy). New York: Picador

Foucault, M. (2007) *Security, Territory, Population: Lectures at the Collège de France, 1977-78*. New York: Palgrave Macmillan

Fougère, M. and Skålén, P. (2013) 'Extension in the Subjectifying Power of Marketing Ideology in Organizations: A Foucauldian Analysis of Academic Marketing', *Journal of Macromarketing* 33(1): 13-28

French, M. and Smith, G. (2013) ' 'Health' Surveillance: New Modes of Monitoring Bodies, Populations, and Polities', *Critical Public Health* 23(4): 383-392

Fuchs, C. (2011) 'Web 2.0, Prosumption, and Surveillance', *Surveillance and Society* 8(3): 288-309

Fumagalli, A. (2011) 'Twenty Theses on Contemporary Capitalism (cognitive biocapitalism)', *Angelaki* 16 (3): 7-17

Giesler, M. and Veresiu, E. (2014) 'Creating the Responsible Consumer: Moralistic Governance Regimes and Consumer Subjectivity', Journal *of Consumer Research* 41(3): 840-857

Gergen, K. (1991) *The Saturated Self: Dilemmas of Identity in Contemporary Life*. Basic Books: New York

Guéry, F. and Deleule, D. (2014) *The Productive Body*. Winchester: Zero Books

Gurrieri, L., Previte, J. and Brace-Govan, J. (2013) 'Women's Bodies as Sites of Control: Inadvertent Stigma and Exclusion in Social Marketing', *Journal of Macromarketing* 33(2): 128-143

Haggerty, K.D. and Ericson, R.V. (2000) 'The Surveillant Assemblage', *The British Journal of Sociology* 51(4): 605-622

Halberstam, J. (2013) 'The Wild Beyond: With and for the Undercommons', in S. Harney and F. Moten *The Undercommons: Fugitive Planning & Black Study*, pp. 2-13. Brooklyn, NY: Autonomedia

Hardt, M. (1999), 'Affective Labor', *boundary 2* 26 (2): 89-100

Hardt, M. and Negri, A. (2000) *Empire*. Cambridge, MA: Harvard University Press

Hardt, M. and Negri, A. (2009) *Commonwealth*. Cambridge, MA: Harvard University Press

Harrison, D. and Kjellberg, H. (2016) 'How Users Shape Markets', *Marketing Theory* 16(4): 445-468

Hodgson, D. (2002) '"Know Your Customer": Marketing, Governmentality and the "New Consumer" of Financial Services', *Management Decision* 40(4): 318-328

Lemke, T. (2011) *Biopolitics: An Advanced Introduction*. New York: New York University Press

Lomborg, S. and Frandsen, K. (2015) 'Self-tracking as Communication', *Information, Communication & Society* 19(7): 1015-1027

Lupton, D. (2013) 'Quantifying the Body: Monitoring and Measuring Health in the Age of mHealth Technologies', *Critical Public Health* 23 (4): 393-403

Lupton, D. (2014a) 'Self-Tracking Cultures: Towards a Sociology of Personal Informatics', in *Proceedings of the 26th Australian Computer-Human Interaction Conference on Designing Futures: the Future of Design*, Sydney, NSW, Australia, 02-05 December, pp.77-86. New York: ACM

Lupton, D. (2014b), 'Self-Tracking Modes: Reflexive Self-Monitoring and Data Practices', Available at SSRN: http://ssrn.com/abstract=2483549

Lupton, D. (2015) 'Lively Data, Social Fitness and Biovalue: The Intersections of Health Self-Tracking and Social Media', Available at SSRN:

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2666324

Lupton, D. (2016) *The Quantified Self: A Sociology of Self-Tracking*. Cambridge, UK: Polity Press

Marx, K. (1867) *Capital: Volume I*. London: Penguin

Mirowski, P. (2013) *Never Let a Serious Crisis Go to Waste: How Neoliberalism Survived the Financial Meltdown*. London: Verso Books

Moisander, J., Markkula, A. and Eräranta, K. (2010) 'Construction of Consumer Choice in the Market: Challenges for Environmental Policy', *International Journal of Consumer Studies* 34(1): 73-7

Morini, C. and Fumagalli, A. (2010) 'Life Put to Work: Towards a Life Theory of Value', *ephemera* 10(3/4): 234-252

Prince, J. D. (2014) 'The Quantified Self: Operationalizing the Quotidian', *Journal of Electronic Resources in Medical Libraries* 11(2): 91-99.

Read, J. (2001) 'The Hidden Abode of Biopolitical Production: Empire and the Ontology of Production', *Rethinking Marxism* 13(3-4): 24-30

Rokka, J. (2010) 'Netnographic Inquiry and New Translocal Sites of the Social', *International Journal of Consumer Studies* 34(4): 381-387

Rose, N. (1996) *Inventing Our Selves: Psychology, Power, and Personhood*. Cambridge: Cambridge University Press

Rose, N. (1999) *Powers of Freedom: Reframing Political Thought*. Cambridge: Cambridge University Press

Schau, H. J., Muñiz Jr, A. M. and Arnould, E. J. (2009) 'How Brand Community Practices Create Value', *Journal of Marketing* 73(5): 30-51

Scott, R., Cayla, J. and Cova, B. (2017) 'Selling Pain to the Saturated Self', *Journal of Consumer Research* 44(1): 22-43

Shankar, A., Cherrier, H. and Canniford, R. (2006) 'Consumer Empowerment: a Foucauldian Interpretation', *European Journal of Marketing* 40(9/10): 1013-1030

Skålén, P. (2009) 'Service Marketing and Subjectivity: the Shaping of Customer-Oriented Employees', *Journal of Marketing Management* 25(7-8): 795-809

Skålén, P. (2010) 'A Discourse Analytical Approach to Qualitative Marketing Research', *Qualitative Market Research: An International Journal* 13(2): 103-109

Skålén, P., Fellesson, M. and Fougère, M. (2006) 'The Governmentality of Marketing Discourse', *Scandinavian Journal of Management* 22(4): 275-291

Skålén, P., Fougere, M. and Felleson, M. (2008) *Marketing Discourse. A Critical Perspective*. New York: Routledge

Spiggle, S., (1994) 'Analysis and Interpretation of Qualitative Data in Consumer Research', *Journal of Consumer Research* 21(3): 491-503

Strauss, A. and Corbin, J. (1990) *Basics of Qualitative Research*. Newbury Park, CA: Sage

Swan, M. (2009) 'Emerging Patient-Driven Health Care Models: an Examination of Health Social Networks, Consumer Personalized Medicine and Quantified Self-Tracking', *International Journal of Environmental Research and Public Health* 6(2): 492-525

Till, C. (2014) 'Exercise as Labour: Quantified Self and the Transformation of Exercise Into Labour', *Societies* 4(3): 446-462

Vargo, S.L. and Lusch, R.F. (2008) 'Service-Dominant Logic: Continuing the Evolution', *Journal of the Academy of marketing Science* 36(1): 1-10

Varman, R., Skålén, P. and Belk, R.W. (2012) 'Conflicts at the Bottom of the Pyramid: Profitability, Poverty Alleviation, and Neoliberal Governmentality', *Journal of Public Policy & Marketing* 31(1): 19-35

Weiskopf, R., and Loacker, B. (2006) 'A Snake's Coils Are Even More Intricate Than a Mole's Burrow. Individualisation and Subjectification in Post-Disciplinary Regimes of Work', *Management Revue* 17(4): 395-419

Whitson, J.R. (2013) 'Gaming the Quantified Self", *Surveillance & Society* 11(1/2): 163-176

Yngfalk, C. (2016) 'Bio-Politicizing Consumption: Neo-Liberal Consumerism and Disembodiment in the Food Marketplace', *Consumption Markets & Culture* 19(3): 275-295

Yngfalk, C. and Fyrberg Yngfalk, A. (2015) 'Creating the Cautious Consumer Marketing Managerialism and Bio-power in Health Consumption', *Journal of Macromarketing* 35(4): 435-447

Zwick, D., Bonsu, S.K. and Darmody, A. (2008) 'Putting Consumers to Work: Co-creation and new marketing govern-mentality', *Journal of Consumer Culture* 8(2): 163-196

Zwick, D. and Bradshaw, A. (2014) 'Capital's New commons: Consumer Communities, Marketing and the Work of the Audience in Communicative Capitalism' in L.J. McGuigan and V. Manzarolle (eds), *The Audience Commodity in a Digital Age*. Berlin: Peter Lang

Zwick, D. and Bradshaw, A. (2016) 'Biopolitical Marketing and Social Media Brand Communities', *Theory, Culture & Society* 33(5): 91-115

Zwick, D. and Cayla, J. (2011) *Inside Marketing: Practices, Ideologies, Devices*. Oxford: Oxford University Press

Zwick, D. and Ozalp, Y. (2011) 'Flipping the Neighborhood: Biopolitical Marketing as Value Creation for Condos and Lofts' in D. Zwick and J. Cayla (eds) *Inside Marketing: Practices, Ideologies, Devices*, pp. 234-253. Oxford: Oxford University Press