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A social marketing perspective on value co-creation, engagement and motivation in gamified systems: exploring a gamified social networking service for physical activity.

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Abstract

In social marketing's efforts to address health-related societal issues such as the insufficiency of physical activity and the rise of obesity, the field has recently embraced the idea of gamification. Drawing from extant literature on social marketing and gamification, this study focuses on value co-creation, motivation and perceived value, and explores an existing gamified system for physical activity from the customers' point of view. The purpose is to learn as much as possible from that system and translate it into meaningful insights which can be used by social marketers in designing and successfully implementing interventions that incorporate gamification. Netnographic methods are being deployed (Kozinets 2015), which involve a fourteen-month long participation in the platform, with the output of a netnographic diary, data from private online discussion groups, and semi-structured interviews. The gamified system is considered as a service, and studied according to the Service-Dominant Logic (Vargo & Lusch 2008). A map of the field is drawn, which is based on the interactions between providers and customers (Grönroos & Voima 2013), and the notion of 'value-in-engagement' is introduced and explained. Subsequently, a thematic analysis is conducted where positive and negative value creation processes are identified, and subdivided into value (co-)creation, (co-)protection/ (co-)recovery, (co-)inhibition, and (co-)destruction (Echeverri & Skålén 2011; Grönroos & Voima 2013). The analysis continues with an investigation of the motivational processes behind value creation, by exploring the main constructs of the Self-Determination Theory (Deci & Ryan 1985a; 1985b). Finally, four processes of developing value perceptions are identified and explained, while dimensions of perceived value in social marketing literature (Zainuddin et al. 2017) are being applied and extended. Implications for research and practice are drawn which highlight the role of the intervention provider as a value facilitator and of the customer as a value co-creator, while taking into consideration the importance of motivational energy and direction, psychological needs satisfaction and cognitive processes of developing value perceptions. Recommendations for future research are provided.

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1. INTRODUCTION

1.1 Introduction

The first chapter provides an overview of the main purpose of the study, the approach which was followed, and the structure of the thesis. It begins by presenting the worldwide public health concerns regarding physical inactivity and increasing obesity rates. Furthermore, it highlights the role of the field of social marketing in encouraging positive health-related behaviours. It identifies key theoretical issues and presents gamification as a tool which has recently been incorporated in social marketing studies. It then presents the core objective underpinning the present study, and how it has been pursued. Finally, it outlines the contents of the thesis, following the present chapter.

1.2 Research background

Recent studies have indicated that above one quarter of adults worldwide engage in insufficient levels of physical activity (Guthold et al. 2018). It is suggested that *"in healthier countries, the transition towards more sedentary occupations and personal motorised transportation probably explains the higher levels of inactivity"* (ibid., p. e1083). Concurrently, according to evidence provided by the World Health Organisation (WHO 2018), obesity rates worldwide have tripled since 1975. Obesity is a known risk factor for serious health conditions such as *"insulin resistance, type 2 diabetes (T2D), and cardiovascular disease"* which are proportionate to an individual's Body Mass Index (BMI) (Pozza & Isidori 2018, p. 7). Obesity has been considered *"multifactorial"* (ibid., p. 7), while the WHO (2018) supports the view that it is primarily attributed to increased energy intake from nutrition in comparison with decreasing levels of daily physical activity.

Constituting a major threat to public health, obesity has attracted the interest of social marketing; the field of marketing which, among other purposes, seeks to encourage healthy behaviours, contributing to the battle against the rise of non-communicable diseases linked to lifestyle choices. Social marketing has focused on physical activity through consumer research, and the development, implementation and evaluation of

interventions (Luecking et al. 2017; Kubacki et al. 2017; Xia et al. 2016; Luca & Suggs 2013), with a proven record of substantial positive societal impact (Gordon et al. 2006).

1.3 Purpose of research

Upon consideration of the current need for studies in the area of physical activity promotion, as well as the recent interest of social marketing towards gamification (Mitchell et al. 2017; Dietrich et al. 2018) and serious games (Cook et al. 2015; Mulcahy, Russell-Bennett & Iacobucci 2018; Mulcahy, Russell-Bennett et al. 2018; Dietrich et al. 2018), this study is intended to explore an existing gamified system for physical activity, which has been studied by gamification scholars in the past (Koivisto & Hamari 2014; Hamari & Koivisto 2015) and has been recognised by early gamification authors as an example of well-implemented gamification (Werbach & Hunter 2012). The objective is to generate richer and deeper insights from the viewpoint of active customers inside this system, to inform current social marketing research and practice in the area of gamification. As suggested by recently published work in the field (Mulcahy, Russell-Bennett et al. 2018), the study adopts the perspective of customer value, and explores the processes of value co-creation, while identifying risks of negative value creation. Following the authors' suggestion, it further explores the system from a motivation standpoint, with reference to the fundamental constructs of the Self-Determination Theory (Deci & Ryan 1985; Ryan & Deci 2000; Deci & Ryan 2011). With a view to make an additional contribution to recent studies on perceived value (Butler et al. 2016; Zainuddin et al. 2017), it investigates how value perceptions are being developed by customers. While refraining from providing definite answers, it contributes to currently open discussions among scholars, and generates insights and ideas for future research. The study was initially guided by the following general question:

What can we, as social marketers, learn from an existing popular gamified system for physical activity, if we attempt to look at it from the customer's point of view?

To address this question, and formulate more specific research questions, informed by previous studies, I consulted the extant literature on value co-creation (Vargo & Lusch 2004; Prahalad & Ramaswamy 2004a; Grönroos & Voima 2013; Domegan et al. 2013), value destruction (Echeverri & Skålén 2011; Zainuddin et al. 2017), motivation in gamification (Nicholson 2012; Mekler et al. 2017), and perceived value in social marketing (Butler et al. 2016; Zainuddin et al. 2017).

1.4 Research approach

The study responds to three Research Questions, with an emphasis on the first:

RQ1: What processes contribute to positive or negative value creation in a gamified social networking site for physical activity?

RQ2: In what ways can the main constructs from the Self-Determination Theory, intrinsic motivation, autonomy, competence, relatedness and extrinsic motivation, help explain the motivation behind value creation processes (identified in RQ1) in a gamified social networking site for physical activity?

RQ3: How do customers who engage in value creation processes (identified in RQ1) in a gamified social networking site for physical activity develop perceptions of value, acquired through these processes?

In seeking for answers to the above questions, I followed netnographic methods, and the underpinning paradigm involved ontological relativism, epistemological constructionism, and symbolic interactionism as a theoretical framework. Two types of data were collected; “*produced data*” (Kozinets 2015, p. 165) took the form of a netnographic diary, “*elicited data*” (ibid., p. 165) took the form of private online discussion groups, as well as semi-structured interviews through online media. In order to begin with the analysis, I created a map of the chosen context based on different forms of interaction involving customers and/or providers, and identified the main areas where value creation could be situated. A thematic analysis followed, consisted of three parts, one for each Research Question. It provides a thorough discussion of the

findings, linking them to current knowledge and suggesting new possible areas of focus.

1.5 Contribution

The study presents a number of implications, theoretical, methodological and practical, which are discussed throughout the analysis and in the concluding chapter. Within the intersection of social marketing and gamification, the study addresses conceptual issues found in previous literature (Cook et al. 2015; Mulcahy, Russell-Bennett & Iacobucci 2018; Mulcahy, Russell-Bennett et al. 2018; Dietrich et al. 2018), and highlights the importance of functional value in related research, as well as relatedness satisfaction in studies deploying the Self-Determination Theory (Mitchell et al. 2017). In the area of gamification for physical activity, the analysis adds depth to the current understanding of the social component of gamified systems for physical activity (Chen & Pu 2014; Hamari & Koivisto 2015), and provides additional reasons for a decline in engagement with gamification, beyond the assumed novelty effect (Koivisto & Hamari 2014; Hamari & Koivisto 2015).

In the literature pertinent to the Service-Dominant Logic, the study contributes an adaptation of Grönroos & Voima's (2013) spheres of value creation, which is applicable in gamified services for physical activity. The notion of 'value-in-engagement' is introduced and the rationale behind its adoption is explained in comparison to previous conceptualisations of value used in SDL literature (Vargo & Lusch 2004; Holbrook 2006; Mathwick et al. 2001; Vargo et al. 2008; Butler et al. 2016; Chandler & Vargo 2011). Value creation processes are subdivided into four categories following the existing distinction of positive and negative value creation (Grönroos & Voima 2013); value creation, protection, recovery, inhibition, and destruction (Echeverri & Skålén 2011; Minkiewicz et al. 2014; Zainuddin et al. 2017).

In terms of the implementation of the Self-Determination Theory (Deci & Ryan 1985; Ryan & Deci 2000; Deci & Ryan 2011) in gamified platforms for physical activity, the analysis applies the main constructs of the theory and sheds light on issues of motivational energy and direction (Reeve 2005), pre-existing motivation, motivation

depletion and psychological needs satisfaction. In the area of perceived value in social marketing programmes, the study identifies ten dimensions of perceived value through application, adaptation and extension of existing constructs (Sheth et al. 1991; Zainuddin et al. 2017; Holbrook 2006; Sweeney & Soutar 2001). It is also explained how such perceptions are formulated through four identified types of cognitive processes.

From a methodological point of view, the contribution of the study is twofold. Firstly, it recommends possible paths that researchers can take when faced with ethical barriers to conducting netnography. Secondly, by contributing to knowledge through an in-depth exploration, following the paradigm of symbolic interactionism (Blumer 1969), it defends the multi-disciplinarity and methodological open-mindedness of gamification research, against recent recommendations for gamification scholars to follow strictly post-positivist approaches (Landers et al. 2018).

Finally, the thesis concludes with practical recommendations for social marketers seeking to use gamification as a tool for behaviour change. It highlights the capabilities presented and the challenges expected to be faced in the implementation of gamification in social marketing programmes.

1.6 Structure of thesis

The thesis consists of eight chapters. The present is the introductory chapter, followed by:

Literature review I: social marketing and gamification

A review of the literature is developed, with a view to explain what constitutes a social marketing perspective, as well as the notion and applications of gamification. The purpose is to highlight the links between gamification and social marketing, and to justify the selection of this area as the focus of the study.

Literature review II: Value co-creation, motivation and perceived value

The literature review continues, with an exploration of the notion of value co-creation and the fundamental aspects of the Service-Dominant Logic. Research Question 1 is

developed in accordance to the above. Secondly, the chapter reviews the current knowledge about the Self-Determination Theory in gamification and social marketing, and presents it as a foundation for Research Question 2. Finally, it discusses the notion of perceived value in social marketing, summarises the main discussions that remain open and concludes with the development of Research Question 3.

Methodology

This chapter outlines the way in which the study was conducted. It explains the underpinning philosophy, followed by the choice of methods, ethical issues and limitations of the research.

Data analysis I: mapping the field

In an attempt to create a map which would indicate where value creation processes could take place, this chapter explores a model taken from the literature on the Service-Dominant Logic and extends it to include all the spheres of interaction identified on the gamified system under investigation. In addition, the notion of ‘value-in-engagement’ is proposed to encompass all types of value created in the identified spheres.

Data analysis II: engagement processes contributing to value creation

This chapter responds to Research Question 1, by exploring participants’ cognitive, emotional and behavioural engagement within the map of the previous chapter. It explores the processes that constitute value creation, recovery or protection, inhibition, and destruction, as illustrated in participants’ responses. Five themes emerge in this section: activity tracking, gamification, socialising, relationships and physical activity. Categories within the themes are analysed and illustrated with quotes.

Data analysis III: motivation and development of value perceptions

The final analysis chapter responds to Research Questions 2 and 3. It explores the notion of intrinsic and extrinsic motivation, the needs for autonomy, competence and relatedness, according to the Self-determination Theory. Insights are drawn which encourage authors to consider intrinsic motivation beyond experimental settings and to focus on satisfaction of the basic psychological needs. Furthermore, the chapter

explores social marketing's value dimensions, presents additional dimensions, and offers four different angles from which customers develop value perceptions.

Conclusion: summary, implications and future directions

The concluding chapter highlights the main contribution of the study to the current knowledge about gamification and social marketing. It explains the main theoretical and methodological implications, and provides practical recommendations to social marketers who may be interested to incorporate gamified systems to behaviour change interventions.

1.7 Conclusion

The main ideas behind the initiation and realisation of this study as well as the main areas of contribution have been outlined. The following two chapters include a review of the literature, which develops the initial ideas further, identifies current discussions among scholars, and creates the foundation for the development of the Research Questions, and the analysis of the data.

2. LITERATURE REVIEW I: SOCIAL MARKETING AND GAMIFICATION

2.1 Introduction

The purpose of this chapter is to present a review of the literature on social marketing and gamification, with a focus on drawing the links between the two fields, and justifying the decision to study a gamified system for physical activity from a social marketing perspective. The first section explains what a social marketing perspective entails. It includes the field's purposes and definition, and places emphasis on its interdisciplinary nature, its individual and social focus, and the role of mobile technology, web-based programmes, social media and games. The second section is an introduction to gamification. It begins with a clarification of the most popular definition as well as key concepts emerging from it, with a view to distinguish the field from other related approaches. Furthermore, there is a discussion of the ways in which gamified platforms are related to online communities. Among the varied and multi-disciplinary applications of gamification, this section focuses on behaviour change and public health, with an emphasis on physical activity. At the end of the chapter, the common ground between gamification and social marketing is discussed, including related studies until the present time.

2.2 The perspective of social marketing

2.2.1 What is social marketing?

Rooted in its early conceptions in the 1960's (Andreasen 2003), the field of social marketing is primarily concerned with behaviour change at an individual, community, organisational, and policy level, through the development, implementation and evaluation of interventions (Andreasen 1995; Gordon et al. 2006). In addition, it holds itself responsible for protecting consumers from the potentially harmful effects of business activity and marketing, through what is known as critical marketing (Hastings & Saren 2003; Gordon et al. 2007). Social marketing should not be confused with social media, although the latter are, and are expected to remain, an essential part of social marketing's communications toolkit (NSMC 2016; James et al. 2013; Khawaja et al. 2017). Social marketing programmes cover issues from obesity, physical activity,

alcohol, tobacco, infection control and sexual health, to crime, sustainability and environmental issues (NSMC 2016).

Social marketing has been described with different definitions, which try to encapsulate its scope and boundaries. The first definition was published in 1971:

“Social marketing is the design, implementation and control of programs calculated to influence the acceptability of social ideas and involving considerations of product planning, pricing, communication, distribution, and marketing research” (Kotler & Zaltman 1971, p. 5).

Later definitions, gradually clarified conceptual issues raising from the first definition (e.g. Andreasen 1994). For the purposes of the study, French and Blair-Stevens’ definition will be followed:

“Social marketing is the systematic application of marketing, alongside other concepts and techniques to achieve specific behavioural goals, for a social good” (NSMC 2007, p. 32).

Particularly, the phrase *“marketing, alongside other concepts and techniques”* (ibid., p. 32) will underpin the focus of the study. The same authors later summarised the meaning of social marketing in four points:

- *“Social Good*
- *Behaviour*
- *Harnessing the power of marketing (in all its forms)*
- *The importance of target audience – or customer-defined value.”*

(French & Blair-Stevens 2010, p. 34)

Social good: refers to the ultimate purpose of social marketing, whether upstream, midstream or individual, either with a critical or behaviour change focus (Carvalho & Mazzon 2015). Its two main dimensions are people’s well-being and social welfare (Phils et al. 2008; Lefebvre 2012). According to Lefebvre (2012) the two-dimensional

nature of social marketing indicates that social marketers are assigned with a challenging task of solving complex problems, instead of being simply “*behaviour change technicians*” (Lefebvre 2012, p. 120). In addition, social marketers carefully consider potentially unintended effects of interventions and strive to minimize potential harm as opposed to good (French & Blair-Stevens 2007a).

Behaviour: refers to the main focus of social marketing, and it can be changed, ceased, encouraged or maintained. The field goes beyond behaviour change into social transformation and innovation (Stephen et al. 2015). Changes therefore may not be immediately measurable as outcomes of an intervention, but changing language, ideas, and attitudes may bring on the long term behavioural change through accumulation of such positive changes (Lefebvre 2012; Spotswood et al. 2012).

Harnessing the power of marketing: the field follows marketing theory and practice to serve social purposes. Social marketers keep the practices of marketing into consideration and the behaviours these might be reinforcing, which may be competitive to their social ends. In their endeavours to influence behaviours for social good, they need to keep a clear picture of the competition’s practices and its power over target audiences, an ongoing process humorously expressed in the phrase “*dancing with the Devil*” (Hastings et al. 2011, p. 239). However, the word marketing is often associated with manipulation and deception, which explains why social marketing has been actively seeking for an accurate definition and a clarification of its ethical practices and boundaries (Andreasen 2002; Dann 2010).

The importance of target audience or customer-defined value: Social marketing places great emphasis on the target audience and the value they acquire from its interventions. Over time, less paternalistic and more dialectic approaches were adopted (Andreasen 2003; Hastings & Saren 2003), with a gradual prevalence of the notion of value co-creation (Desai 2009; Domegan et al. 2013). Consumers are considered capable of creating value by interacting with intervention providers as well as with each other within their social groups and communities (Luca et al. 2016a); they can also destroy value using the same capabilities (Echeverri & Skålén 2011; Zainuddin et al. 2017).

Benchmark criteria were developed by Andreasen (2002), as guidelines to underpin every social marketing programme; they were later revisited by French and Blair-Stevens (2007b), and include “*customer orientation*”, “*behaviour*”, “*theory*”, “*insight*”, “*exchange*”, “*competition*”, “*segmentation*” and “*methods mix*” (ibid.). However, not all of the studies categorised as social marketing meet all the criteria (Kubacki et al. 2015), possibly for feasibility reasons. Andreasen (2002), after outlining the benchmark criteria, added that they do not all need to be followed; particularly in academic research, any theoretical contribution, insight or new practical approach that helps develop the field can be considered as social marketing. Finally, the author mentioned that marketing communications were still expected to be prevalent in social marketing programmes.

Spotswood et al. (2012) pointed out that social marketing is “*multi-theoretical*” (p. 167). While several attempts have been made to clarify its distinction from other related fields (Andreasen 2002; 2003), social marketers also emphasise the interdisciplinary nature and open-mindedness of the field. Andreasen (2002) mentioned that the field borrows from and contributes to other brands, some of which are theoretical models that are often used as intervention frameworks. My belief that social marketing is welcoming of techniques coming from persuasive technologies such as gamification, largely stems from this tendency in the literature. Lefebvre and Kotler (2011) examined the development of social marketing, and explained that it embraced other areas, including design thinking and behavioural economics. French and Blair-Stevens (2010) presented it as a “*dynamic and integrative discipline*” (p. 31), while Stead et al. (2007) explained that social marketing draws from many different fields such as psychology, sociology, anthropology, and communication theory. French and Blair-Stevens (2010) suggested a shift of focus, from making the boundaries clear, to exploring what social marketing and other fields can learn from each other.

The three levels of operation for social marketing are: individual, midstream and upstream (Andreasen 2002). The “*primary niche*” of social marketing consists of individuals (Andreasen 2002, p. 5), who are being educated and encouraged to change how they behave, for example drive safer or consume less alcohol. The second level is

the midstream or community approach. Community members can be influenced together, as it is believed that changing collective beliefs, values and social norms, along with peer pressure and mutual support can lead individuals within a group towards change. Although behaviour is the main focus of any programme, at a community level programmes could focus on “*softer outcomes*” (Spotswood et al. 2012, p. 169). The authors suggested that a change of ideas and social norms may lead to desired behaviours on the long term. The upstream approach supports the view that individuals have little power to bring considerable social change, as they are restricted by the structures they operate in (Andreasen 2002). The resources, knowledge, technology they have available are limited. The approach suggests that rules and regulations that underpin those structures have a greater potential to bring significant, sustainable change (ibid.). Social marketing scholars have been pushing towards midstream and upstream approaches for years, and indeed there has been a major shift, which involved the area of physical activity (Gordon et al. 2006).

The contribution of midstream thinking and community has been appreciated by many authors (McKenzie-Mohr 2000). Fry (2014) explored the learning processes among the members of a community for responsible alcohol drinking, and acknowledged the importance of social interaction in behaviour change, which she described as a “*situated social practice*” (p.17). As will be discussed in the next chapter, the idea of consumers’ value co-creation within communities, which is based on Vargo and Lusch’s Service-Dominant Logic of marketing (Vargo & Lusch 2004), has been embraced widely by social marketers in recent years, and has been applied conceptually to match the field’s theoretical background (Domegan et al. 2013; Wood 2016; Luca et al. 2016a; 2016b).

Online communities present an area of interest, as they can form social networks that bring people together to discuss health-related issues (Bornkessel et al. 2014). For example, engaging local communities in physical activity initiatives has been shown to present challenges, ranging from a lack of participation, to adverse weather conditions disrupting planned activities (Claus et al. 2012). Keeping an online community may

help support these initiatives, by providing a wider reach to more people online, and encouraging collective problem solving through online discussions.

2.2.2 Physical activity

Physical activity is one of the main areas of focus for health-related social marketing programmes. In combination with dietary modifications, it can contribute to the reduction of obesity, and therefore is a primary concern for any field related to public health (Jakicic et al. 2018). According to the World Health Organization “*obesity is one of the greatest public health challenges of the 21st century (...) and the numbers of those affected continue to rise at an alarming rate*” (WHO 2018). The organization warns the public that overweight and obesity “*are major risk factors for a number of chronic diseases, including diabetes, cardiovascular diseases and cancer*”. Among other factors, social marketers attribute the problem to food marketing (Hoek 2011), and consider obesity as one of the “*societal side-effects of consumption*” (Palazzo 2011, p. 273).

In order to clarify the terms used throughout the thesis, it is important to distinguish between physical activity, exercise and physical fitness. The following widely accepted definitions by Caspersen et al. (1985) are going to be used: “*Physical activity is defined as any bodily movement produced by skeletal muscles that results in energy expenditure. (...) Physical activity in daily life can be categorized into occupational, sports, conditioning, household, or other activities. Exercise is a subset of physical activity that is planned, structured, and repetitive and has as a final or an intermediate objective the improvement or maintenance of physical fitness. Physical fitness is a set of attributes that are either health- or skill-related. The degree to which people have these attributes can be measured with specific tests*” (Caspersen et al. 1985, p. 126). Physical activity will be referred to more frequently in the study, while exercise is an important component of it. Physical fitness is more specific and may appear sometimes in the form of fitness goals set by participants.

Physical activity is of great interest to social marketers in research and practice (Luecking et al. 2017; Kubacki et al. 2017; Xia et al. 2016; Luca & Suggs 2013).

Related behaviour change interventions deploy various theoretical approaches, such as the Theory of Planned Behaviour (Ajzen 1985; Wong et al. 2004), or the Stages of Change model (Prochaska & DiClemente 1986) which can be used as segmentation criteria (Luca & Suggs 2013), to reach different target audiences and age groups (Paek et al. 2015; Fujihira et al. 2015; Aceves-Martins et al. 2017; Luecking et al. 2017). According to reviews, there is reasonable evidence that social marketing can bring improvements in exercise behaviour, knowledge about physical activity and psychosocial variables, such as self-efficacy or perceived social support, while there is inconclusive evidence that social marketing interventions can improve physiological outcomes, such as Body Mass Index (Baranowski et al. 2003; Gordon et al. 2006), which is an aspect of physical fitness, and an obesity indicator. In those interventions, there is a strong focus on the capabilities of communities (Baker et al. 2015; Stead & McDermott 2011, Gordon et al. 2006), as well as the use of technology (Berg et al. 2007; Cugelman et al. 2011).

2.2.3 Technology and games

In recent years, social marketing has focused on technology as a fundamental part of communications (Lefebvre 2009; Uhrig et al. 2010; Mays et al. 2011; Hastings & Domegan 2017; Manika et al. 2017). ‘New media’ is a term that has been used “*to refer to the variety of emerging, interactive communication applications, such as participatory media (e.g. ‘web 2.0’), personal wireless devices, and other interactive digital content...we also refer to information ‘consumers’ as those individuals who actively seek and/or obtain information*” (Mays et al. 2011, p. 179). Early on, the potential of “*mobile web technology*” (ibid., p. 187), as well as the “*e-games*” (ibid., p. 180) was predicted by authors.

Mobile technologies have seen numerous applications in health-related interventions (Lefebvre 2009; Cole-Lewis & Kershaw 2010). Mobile phones, progressed from text messaging to smartphone apps, and web-based platforms, in their simplest forms play the role of information sources and in their more evolved forms, social networking sites, or social media, act as platforms that host online interactions between consumers on a large scale (Lefebvre 2009). The latter facilitate the development of communities,

a word also found in the literature about midstream social marketing, with a slightly different meaning and yet very relevant. Communities in those platforms may have more potential, and are surprisingly underutilised by social as opposed to commercial marketing, which has appreciated and used them extensively.

A systematic review of 10 physical activity interventions until July 2006, included internet-based systems with interactive self-monitoring and feedback tools (Van den Berg et al. 2007). Positive outcomes were found compared to waiting lists, and indications that a greater degree of personalization, in contact and content would improve the interventions. Another systematic review of physical activity interventions, revealed positive outcomes as well, and emphasised the advantage of websites to reach a large number of adults at a reasonable cost, which was suggested as a “*public health priority*” (Vandelanotte et al. 2007, p. 54). Both reviews made the comment that our knowledge is limited to the short term effects of web-based interventions. Later, social marketers confirmed that online interventions for health behaviour had a positive impact on the field’s endeavours to create healthier societies (Eysenbach 2011; Cugelman et al. 2011).

As technology progressed, the emergence of social media were going to change the scene of marketing communications, and social marketing was no exception (Thackeray et al. 2012, Guidry 2014). The question is how social marketers can maximise the benefits of using this technology. For Lefebvre (2010b), the key is to understand that we are not sending the messages any longer, but creating messages and experiences worth sharing. As consumers’ voices become more important, the word ‘audience’ is no longer relevant in a discussion about social media. In order to use social media effectively, one has to embrace “*the idea that the world is composed of social networks, not individuals*” (Lefebvre 2010b, p. 178) and focus on understanding those networks.

Turning people, previously perceived as target audiences, into social change advocates, means initiating and facilitating discussions which are relevant to them (Guidry et al. 2014). Ideally, social marketing audiences can transform into cyber activists, by voicing opinions on social media which can push policy towards positive changes

(McCaughey & Ayers 2013). Despite the advantages of social media, specifically in the context of self-reported physical activity (Cavallo et al. 2012), they do not always prove to be more effective than primarily educational approaches. This indicates that the decision to use social media depends on the audience and the context, and there is no one approach assumed to bring additional positive outcomes in all cases. It may also indicate that social media may require additional techniques, which will boost the engagement and behaviour change capabilities of social networking sites.

Within a social marketing programme, according to Manikam and Russell-Bennett (2016), the use of a combination of digital platforms, mobile, e-mail, web-pages, and social networking sites is ideal, due to the fact that not all participants can be assumed to have access to all devices, such as smartphones. Many studies on programmes that deployed the above media, notably used multiple platforms based on the context, the available resources, the audience as well as the social marketer's knowledge and judgement. Lefebvre (2010a) supported that the use of media should be viewed as broadly as possible, as the audiences should be exposed to multiple channels, for behaviour change to become more likely.

Considerations regarding the use of the above media involve the digital gap (Hastings & Domegan 2017); the question whether the target audience will be technologically literate, and have access to the devices required for an intervention. The second consideration, as stated by Lefebvre (2010a) is that the use of media should be one part of the effort. Changing social norms is beneficial but it should be supported by policy change in order to be reinforced and maintained.

Social marketing has embraced videogames, or "*e-games*" (Mays et al. 2011, p. 180), as part of the field's new media toolkit, although there is room for further exploration of their capabilities, and how they can be incorporated in social marketing interventions. A game called "*Don't turn a night out into a nightmare*" (Mulcahy et al. 2015, p. 267) was created by the Australian Federal Government as a component of a social marketing programme, intended to encourage moderation in drinking among adolescents. The study highlighted the importance of value in the experience of a gameplay, and how social marketers using video games need to combine different

game features to deliver different forms of value and create a “*complete value package*” (ibid., p. 258). Buller et al. (2009) added interactive games for improved nutrition into the Centers for Disease Control and Prevention website “*Fruits and Veggies-More Matters*” (ibid., p. 136). At that time, the behavioural outcomes of the attempt were not significant, but the game enhanced the informational purposes of the site, and increased participants’ self-confidence that they could change their nutrition behaviour. The authors discussed their concerns that repeated use of the online games of social marketing content might be a challenge, as in their view it requires a high entertainment value, or a close monitoring process, which would be feasible in school environments, but not when targeting adult audiences.

Baranowski et al. (2008) presented the same problem from the perspective of cost. Developing serious games is a process that is time-consuming and costly; one game can take 3.5 years to be developed. While commercial video games are becoming more complex in terms of graphics and features, the expectations become higher for serious games to provide similar levels of enjoyment, which can be a challenge for public health and social marketing, given the limitations in funding.

As the field of video game design keeps developing, new opportunities open for marketers and social marketers to engage their audiences in meaningful and enjoyable ways. In the last seven years, the emergence of gamification, which suggested that game design elements rather than fully-fledged games could also be powerful, behaviour change tools (Deterding, Dixon et al. 2011), appeared promising in improving physical activity (Hamari & Koivisto 2013), in combination with other media as well (Thorsteinsen et al. 2014). The presence of the term in the social marketing literature is still scarce (e.g. Mitchell 2017; Mulcahy et al. 2018), although commercial marketing scholars and practitioners have embraced it for a long time (Werbach & Hunter 2012; Zichermann & Linder 2013; Chou 2016), and it has attracted the interest of public health research (White et al. 2016).

2.3 Gamification

2.3.1 What is gamification?

Gamification as an academic term first appeared in 2011, although practitioners' early conceptions pre-existed (e.g. Pelling 2004; Terrill 2008). Promising to influence people's behaviour by offering engaging, enjoyable experiences with the use of game principles, it has been used as a tool in marketing and behaviour change, among other areas (Deterding, Dixon et al. 2011; Huotari & Hamari 2012; Bogost 2011). The first academic attempt to define gamification, resulted in the most cited definition to date: "*Gamification is the use of game design elements in non-game contexts*" (Deterding, Dixon et al. 2011, p. 10). Game design elements are the ingredients of a gamified system, also referred to as interface elements, components, mechanics, or dynamics (Deterding 2011; Werbach & Hunter 2012; Zichermann & Cunningham 2011; Robinson & Bellotti 2013). They include visible and underlying elements. The former are features such as points, badges, leaderboards, levels, challenges, quests and tokens, which the user can see and interact with directly. The latter involve heuristics, models and methods (Deterding, Sicart et al. 2011), as well as dynamics such as the context, the rules and the narrative (Robinson & Bellotti 2013; Werbach & Hunter 2012). Non-game contexts involve education (Cohen 2011; Corcoran 2010), enterprise (Nikkila et al. 2011; Cheng et al. 2011; Mehta & Kass 2012), employee motivation (Lithoxoidou et al. 2017), idea generation (Hoonhout & Meerbeek 2011), sports and health (Müller et al. 2011), marketing (Meloni & Gruener 2012; Werbach & Hunter 2012) and many more areas (e.g. Gerling & Masuch 2011; Narasimhan et al. 2011).

Huotari and Hamari (2011; 2017) examined gamification from a services marketing perspective. The authors emphasised that without the users a system cannot be perceived as a game, and the same is true for a gamified system: "*Instead, we propose that gamification could be understood more broadly as a process in which the "gamifier" is attempting to increase the likelihood of the emergence of gameful experiences by imbuing the service with affordances for that purpose (be they badges, points or more implicit cues)*" (Huotari & Hamari 2017, p. 25). The authors' view

highlighted the importance of the customer's role in achieving the behavioural purposes of a gamified service.

Since the emergence of gamification in its current form, a debate has begun about whether gamification and serious games should belong under the same category, or the former is a distinct field. It seemed that practitioners tended to include full-fledged serious games under the name 'gamification' while academics preferred to keep the two terms separate. When developing the aforementioned definition, Deterding, Dixon et al. (2011) explained that although gamification is a part of the digital serious games movement, it is meant to include elements "*characteristic to games*" (ibid., p. 12) rather than full-fledged games which involve a traditional form of gameplay (see also Deterding, Sicart et al. 2011). The distinction between serious games and gamification appears to be unclear in the area of health. A review published recently about the application of serious games and gamification in e-Health, analysed a number of related studies and brought together the benefits and limitations of both, with the underlying assumption that they were the same (Sardi et al. 2017). Marczewski (2013) argued that gamification designers should not limit their creativity to fit into a strict definition, as long as gameplay is not the original purpose of the design process.

Gamification has been extensively criticised. Bogost's popular expression "*gamification is bullshit*" (Bogost 2011), based on philosopher Frankfurt's work (2005), was used to express the view that gamification is a shortcut to game design with a purpose of engaging consumers and generating profit on a short-term basis. As such, it simplifies the magic and perplexity of creating engaging games. Bogost (2011) proposed the term "*exploitationware*" instead. "*Pointsification*" is a term proposed by Robertson (2010), who supported the view that points and badges were the least important parts of games, and criticised the simplistic view of game design in gamification. Hamari et al. (2014) confirmed the suspicion that points, leaderboards, and badges, the infamous "*PBL triad*" (Werbach and Hunter 2012, p. 71), were the most prevalent game elements used. However, according to Seaborn and Fels (2015), Bogost's article represented a rather narrow understanding of gamification. As the field of gamification progressed, the focus shifted from criticism to reflection (Hamari et al.

2014), on the growing number of applications and research projects that had emerged. The questions discussed were concerned with improving gamification practices, and assessing the requirements of implementation in many different contexts (Nacke & Deterding 2017). A new field of research and practice had developed, which meant that the predictions of a temporary trend were not confirmed.

2.3.2 Online communities

Considering the fact that a gamified system can also constitute an online community platform, the connection between online communities and gamification is evident in the literature. In some cases, the focus lies on the community itself, where gamification is a tool deployed to improve participation and contribution to the discussions (Bishop 2012; Bista et al. 2012; Bista et al. 2014; Bertholdo & Gerosa 2016; Kundisch & Rechenberg 2017). In other cases, the focus of the system lies on specific behavioural purposes outside of the online environment, while the development of an online community combined with gamification is the means of achieving those purposes. An interesting example was the parenting intervention conducted by Love et al. (2016) to support vulnerable groups of parents in Los Angeles. In the focus group discussions at the end of the programme the parents reported that they appreciated the content, the social networking aspects as well as the game elements of the system. They found value in exchanging experiences and supporting each other, while earning badges to reward their achievements in improving their parenting behaviour. Among their suggestions for improvement, was the idea of keeping the system functioning indefinitely, and inviting more parents to the online community.

By becoming a part of the community of the World of Warcraft, a popular MMORPG game, Rapp (2017) sought to identify aspects that drove user interaction and participation, which could be transferable to gamification contexts. The author focused on the users' perspective, following an ethnographic approach, and provided a series of recommendations for gamification design, which involved a strong social component: identification and empathy, rewards, social organisation, cooperation and friendship, competition and freedom were the recommended game elements (ibid.). With reference to the Stages of Change Model (Prochaska & DiClemente 1986), Rapp

(2017) recommended that different stages of change may require different options and customisation possibilities. A focus on extrinsic rewards is suggested in the beginning of the gameplay, followed by a focus on enhancing autonomy, competence and relatedness (Ryan & Deci 2000) to develop the users' intrinsic motivation to engage in the system and its activities.

In regard to online community facilitation, gamified platforms and social media sites bear similarities according to Lampe (2014). Foursquare has been mentioned as one of the first examples of gamification (Werbach & Hunter 2012), which is an indication that the distinction between the two may not always be clear. In addition, social networking sites may be indirectly connected to gamified systems. For example, a gamified system may provide the option of “*Facebook sharing*” to increase interactivity between users and offer greater opportunities for integration (Werbach and Hunter 2012, p. 59). Other times, the social network and the gamified system are the same platform, such as in cases of physical activity systems, such as the Fitbit, Fitocracy and Freeletics. It is very common for these systems to have a mobile app integration which is synchronised to the webpage/social networking site and provides similar features to the users.

2.3.3 Behaviour change and physical activity

In many cases, gamification developers have been assigned with the task of facilitating behaviour change through gamified systems aiming to achieve societal impact.

“*Behaviour-change gamification*” has been acknowledged early on as the type which “*seeks to form beneficial new habits among a population...programs are often run or sponsored by nonprofits and governments*” (Werbach & Hunter 2012, p. 23). The behaviour change capabilities of gamification, have been explained from different angles. On the one hand, behavioural psychologists focus on observed behaviour (Linehan et al. 2014); on the other hand, many gamification scholars are also interested in the underlying mechanisms of behaviour such as intrinsic motivation which is harder to observe and not the primary focus of behavioural psychologists (Mekler et al. 2017; Linehan et al. 2014). The objectives of behaviour-change gamification vary from building personal resilience through Jane McGonigal's app SuperBetter, or

maintaining pro-environmental behaviours (Mak 2015; Morganti et al. 2017) to a number of public health topics, as specialist as improving emergency response (Kanat et al. 2013).

Gamified systems designed to encourage and monitor physical activity have been studied by gamification scholars in the past (Koivisto & Hamari 2014; Chen & Pu 2014; Hamari & Koivisto 2015). Koivisto and Hamari (2014) observed that users' perceived enjoyment and usefulness of gamification, in the context of a gamified system for physical activity, declined over time. The authors interpreted their findings as an indication that gamification had a novelty effect on its users, who appeared to lose their interest after a period of time. Cheng and Pu (2014) developed a gamified system for physical activity in which they created cooperation, competition, and hybrid conditions. The authors found that users who engaged with the gamified system under hybrid conditions outperformed the other two groups, which implies that a combination of cooperation and competition may be preferable, in order to achieve significant behavioural impact. Hamari and Koivisto (2015) studied a more complex gamified system for physical activity, and discovered that users' exposure to a social community could improve their attitudes towards the desired behaviour, as well as the behaviour itself. The authors highlighted the importance of reciprocity which they viewed as a form of exchange of positive recognition between the users.

Popular examples in the area of physical activity include Nike+, Health Month and Zombies Run. Nike+ is a walking and running activity tracking system, accessible from mobile devices and online browsers; it involves wearable equipment, such as the 'Fuel band' that measure speed, distance and keep track of the routes covered (NikePlus 2018; Blohm & Leimeister 2013). The system involves gamification components such as badges and challenges, as well as an online platform which facilitates social interactions between users. Fitbit and Jawbone Up are systems following a similar logic to Nike+.` Buster Benson's Health Month is a gamified system for self-improvement in areas such as exercise, healthy eating, personal finances, sleeping, socialising and more. The users set their own monthly goals and rules to follow. The progress is self-reported and the community interacts and supports

its users when they fail to follow their plans, encouraging them to return to their goal pursuits (Health month, the game 2018). *Zombies Run* is a gamified fitness tracking Android application, which is based on the narrative by which the user is running to survive the zombie apocalypse, gathering supplies and completing missions while walking or running in the real world. The app has a strong narrative component and does not focus on quantitative data of physical activity (*Zombies, run!* 2018). It should be noted that in certain cases, gamified systems such as the above may be complementary rather than competitive to each other, as some of them provide integration capabilities. For example, the Health Month can work with Fitbit to allow users to track physical activity instead of self-reporting it.

Health is evidently one of the main areas of interest within gamification for behaviour change and social good. It can be further divided into lifestyle behaviour change and treatment compliance, involving physical or mental health, according to relevant reviews (Alahäivälä & Oinas-Kukkonen 2016; Sardi et al. 2017). The same reviews reveal that in lifestyle behaviour change, most gamified systems are related to physical activity and fitness. However, as specified by Sardi et al. (2017), gamified interventions for physical activity may be part of patients' treatment, following their physicians' instructions. The latter indicates an overlap in the purposes and potential application of gamification in healthcare and behaviour change of preventive nature, which focuses on developing general health and well-being. Such applications are compatible with social marketing's public health programmes, which may involve patient adherence and lifestyle choices among their target behaviours (French 2017).

The potential of gamification in developing positive health behaviours was recognised since its emergence. King et al. (2013) attributed their optimistic predictions to consumers' increasing interest in smartphone devices as well as the developers' evident tendency to apply current technology into health-related interventions. In addition, the authors expressed the belief that motivation and engagement would play an important role in the success of such projects. They suggested that academics and clinicians should develop interventions following the example of commercial platforms such as Nike+ Fuel band, in order to make them appealing to their audiences

(*ibid.*). In a review, Johnson et al. (2016) identified early predictions about the benefits of gamification for health and well-being, and assessed whether these had been supported by academic research.

Early discussions predicted that gamification would contribute to the increase of users' intrinsic motivation, an assumption which was challenged by some authors (Mekler et al. 2013; Mekler et al. 2017; Mitchell et al. 2017). As Johnson et al. (2016) explained, there was a lack of theoretical frameworks used in studies on health and well-being until the point of the review. Skinner's behaviourist paradigm prevailed, as most studies focused on rewards systems behind gamification. In the few studies where theory was deployed, Self-determination Theory (Deci & Ryan 1985a; 1985b) was the most prevalent framework, and the importance of relatedness in gamification for physical activity was highlighted, as the importance of developing meaningful experiences as opposed to providing plain rewards (see also Nicholson 2012). An additional advantage of gamification was predicted to be its accessibility across different platforms, rather than one medium (Johnson et al. 2016). The latter was confirmed by studies, but gamification was not compared to stationary forms of delivery.

In addition, gamification was promised to be suitable for many different audiences. Indeed, a common question in discussions around gamification for health is whether there is an age limit to its use. There is research focusing on children (Hu et al. 2014; Jones et al. 2014; González et al. 2016; Hu et al. 2016; Coombes & Jones 2016) as well as seniors (McCallum 2012; Brauner et al. 2013; Bamidis et al. 2016), which may indicate that there is no age limit to gamification *per se*. However, adjusting parameters to ensure accessibility, might become a barrier to implementation when resources are limited. Studies included in Johnson et al.'s review (2016) confirmed its broad applicability, through its successful implementation with various different samples. Finally, it was hoped that gamification for health and well-being would be able to target many areas, such as patient adherence, weight and nutrition management, physical activity and mental health. The latter was confirmed in the literature, as the studies addressed all the above, and suggested further topics for future studies (*ibid.*).

2.4 Gamification in social marketing

Social marketers have acknowledged the intersection between the field's purposes and those of gamification. Table 2.1 presents the studies in social marketing until the present time, which mention the use of gamification. Cook et al. (2015) conducted a study based on an intervention which promoted responsible drinking among sailors. The authors' multi-method, multi-theoretical approach involved the use of a web-based platform and a serious mobile game. The programme achieved positive results in changing the target group's behaviour, along with changes from the leadership's side. The participants gave positive feedback and demonstrated high levels of engagement. Consequently, the authors recommended the use of digital platforms in campaigns, particularly those involving younger audiences.

Authors	Context	Type of paper	Platforms	Theoretical background	Key insights
Cook, Brennan, Gray and Kennard (2015)	Responsible drinking behaviour among young sailors	Social marketing campaign, deploying multiple methods (focus groups, intercept interviews, one-on-one interviews, campaign concept testing, survey)	Web-based intervention, serious game on mobile app	Multiple models, including social ecology, Cugelman's (2013) gamification architecture	<ul style="list-style-type: none"> Positive behaviour change, reduction of alcohol-related incidents Changes in leadership Positive feedback from participants High campaign reach and engagement Socio-ecological, digital-based interventions recommended in future campaigns
Mitchell, Schuster and Drenman (2017)	Physical activity - walking	Experiment	Gamified mobile app for walking	Self-Determination Theory	<ul style="list-style-type: none"> Intrinsic motivation to walk or use the app did not increase Walking activity increased Impact maintained over time
Mulcahy, Russell-Bennett and Iacobucci (2018)	Sustainable household energy usage	Field study	Gamified mobile app to encourage sustainable energy usage	Game design elements, perceived value, WOM	<ul style="list-style-type: none"> Improved energy-saving behaviour Increased word-of-mouth Significant monetary savings
Mulcahy, Russell-Bennett, Zainuddin and Kuhn (2018)	Advancing social marketing services and improving well-being through serious m-games	Mixed methods, two studies	Four current marketplace serious m-games	Game design elements	<ul style="list-style-type: none"> M-games can provide knowledge-enhancing, satisfying service experiences M-games enhance consumers' intentions to perform recommended health and well-being behaviours Challenges, virtual training, characters and behaviour monitoring should be incorporated in m-games
Dietrich, Mulcahy and Knox (2018)	Alcohol consumption	Analysis of written feedback from three online games	Online serious games	Game design elements/attributes	<ul style="list-style-type: none"> Dichotomous taxonomy of gaming attributes: <ul style="list-style-type: none"> Reward-based Meaningful

Table 2.1: Studies combining social marketing with gamification

Mitchell et al. (2017) conducted an experiment to test the effectiveness of a gamified app in increasing physical activity and enhancing intrinsic motivation. Positive behaviour change was reported, which appeared to be maintained over time. However, the app did not increase intrinsic motivation. It should be noted, that in the literature review of the paper, the authors mentioned all three aspects of intrinsic motivation, autonomy, competence and relatedness (Deci & Ryan 2002), but did not include relatedness in the hypotheses and presentation of the findings, despite the fact that previous authors (Hamari and Koivisto 2015) had emphasised the importance of relatedness in gamification for physical activity.

Mulcahy, Russell-Bennett et al. (2018) found that m-games provided satisfying service experiences, which enhanced consumers' knowledge. Participants demonstrated increased intentions to perform health-related behaviours. The authors suggested the use of challenges, virtual training, characters and behaviour monitoring in m-games. Furthermore, they recommended that future research on serious games and gamification should deploy motivation theories such as the Self-Determination Theory (Ryan & Deci 2000), as well as "*marketing frameworks such as customer value*" (Mulcahy, Russell-Bennett et al. 2018, p. 47). Finally, Dietrich et al. (2018) sought to contribute to the literature of serious games and gamification, by exploring three online serious games, and created a taxonomy of reward-based and meaningful game attributes.

The above studies indicate that there is an increasing interest in the application of gamification in social marketing programmes. It can be observed that all the studies, except Mitchell et al.'s (2017) experiment, involved full-fledged serious games rather than gamified systems. The authors mentioned gamification as an umbrella term which involved gamified systems as well as full-fledged serious games. However, gamification scholars such as Johnson et al. (2016) choose to exclude full-fledged games from systematic reviews on gamification for health and well-being, as such platforms are not considered part of this stream of literature. It could be argued, that while serious games existed for a long time, the term 'gamification' emerged in 2011 to describe platforms which involved game elements rather than games (Deterding,

Dixon et al. 2011). While developing new knowledge about the capabilities of gamification in social marketing programmes, scholars might consider adopting a clearer distinction. According to currently accepted definitions as well as inclusion criteria in systematic reviews, Mitchell et al.'s (2017) paper is the only study within the intersection between social marketing and gamification until the present time. The latter means that there is currently a gap in the literature, allowing room for further empirical exploration.

2.5 Conclusion

This chapter explored the common ground between social marketing and gamification. The fields' common behaviour change purposes and capabilities, the existing commercial marketing applications, gamified systems' potential of hosting communities, and social marketing's acknowledgement of games and recently of gamification itself have been presented as indications that the intersection may bring positive outcomes. Further research in this area is therefore suitable and there is still a limited number of studies. The common perspectives between the two fields of value and motivation will be further analysed in the following chapter.

3. LITERATURE REVIEW II: VALUE CO-CREATION, MOTIVATION AND PERCEIVED VALUE

3.1 Introduction

Upon drawing the theoretical and practical links between social marketing and gamification, this chapter presents a more focused review of the literature, which specifies three areas of interest within the fields' intersection, and develops three research questions. Firstly, the notion of value is being explored, from exchange-based approaches to more recent viewpoints supporting value co-creation such as the Service-Dominant Logic (Vargo & Lusch 2004), leading to the main Research Question of this study, RQ1. Secondly, the notion of motivation is explored in gamification and social marketing, along with the most widely used theory in gamification studies, the Self-Determination Theory (Ryan & Deci 2000); Research Question 2 is formulated based on the above. Finally, the notion of perceived value is explained from its original conception to its implementation in social marketing primarily, and less often in gamification; Research Question 3 is formulated following the last section of this review. It must be noted, as explained in the following chapter as well, that the choice of relevant theory and the formulation of the final version of all research questions, particularly the ones with a complementary role (RQ2 and RQ3), was an outcome of a dialogue between the literature and the data collected during the first months of the study.

3.2 Value, value-co-creation and the Service-Dominant Logic: Research Question 1

3.2.1 Value

Adding value is one of the main objectives of incorporating gamification into a system (e.g. Rigby 2014). Yang and Chen (2017) suggested that gamification influences users' perceptions of the value of a specific behaviour or activity, which in turn motivates them to perform the behaviour. The authors conceptualised gamification as *“the use of game elements to influence users' value perceptions of a target behavior in order to motivate action”* (p. 120). Furthermore, value can be added to a system through

rewards, which are perceived in various ways by different users. *“Basically, players ascribe to these rewards a different value depending on their goals, personality and needs”* (Rapp 2016, p. 256). In marketing, value has received significant attention and has been given different interpretations over the years. Table 3.1 presents the main perspectives of value, as conceptualised by marketing scholars. There are five main marketing conceptualisations of value, explained in the following paragraphs.

Value-in-exchange

Zeithaml (1988) attempted to clarify the term ‘perceived value’, along with the notion of ‘perceived quality’, by reviewing the literature until that time, and conducting an exploratory study. The first exchange-focused definition of value was the following: *“perceived value is the consumer’s overall assessment of the utility of a product based on perceptions of what is received and what is given”* (Zeithaml 1988, p. 14). The author specified that for every consumer this value is different: *“Though what is received varies across consumers (i.e., some may want volume, others high quality. Still others convenience) and what is given varies (i.e., some are concerned only with money expended, others with time and effort), value represents a tradeoff of the salient give and get components”* (p. 14). The above conceptualisation contributed to marketers’ understanding of consumer decision making and provided a number of ways for them to add value to their offerings.

The logic that value is delivered by the organisation and perceived in a certain way by the consumer was expanded by Sweeney and Soutar (2001). The authors identified and tested four dimensions of perceived value: emotional, social, price/value for money, and performance/quality. Whittaker et al. (2007) followed the same path and added two forms of value to the above: epistemic and image value. The authors examined the relationship between these forms of value, consumer satisfaction and re-purchase intention. Songailiene et al. (2011) examined value from the perspective of the suppliers and developed a conceptual model for Supplier Perceived Value (SPV). Although the authors’ work emphasised the suppliers’ role in value creation, they also already acknowledged the co-creation of value through keeping an open dialogue with consumers.

Type of value	Meaning	Sources
Value-in-exchange	Value is inherent in a product or service, it is delivered by the organisation, and it is the benefit gained in exchange for the monetary and non-monetary cost paid by the customer.	Bagozzi (1975), Zeithaml (1988), Sweeney and Soutar (2001), Whittaker, Ledden and Kalafatis (2007), Songalliene, Winklhofer and McKechnie (2011).
Value-in-use	The consumer is an active participant in the creation of value, without whom value is not created. A buyer-seller relationship is now seen as a consumer-producer interaction which generates value.	Woodruff (1997), Woodall (2003), Vargo and Lusch (2004), Grönroos (2008), Sandström, Edvardsson, Kristensson and Magnusson (2008), Macdonald, Wilson, Martinez and Toossi (2011).
Value-in-experience	Value is a product of the consumption experience, which is shaped by personal and situational factors. It is also a product of co-creation between consumers and companies.	Holbrook (1996), Holbrook (1999), Holbrook (2006), Prahalad and Ramaswamy (2004a), Prahalad and Ramaswamy (2004b), Flint (2006), Helkkula, Kelleher and Pihlström (2012).
Value-in-context	Value is co-created in complex service systems, and is "uniquely and phenomenologically determined by the beneficiary" (Vargo et al. 2008, p. 149). Value-in-context is a more holistic understanding of value-in-use.	Vargo, Maglio and Akaka (2008), Chandler and Vargo (2011)
Value-in-behaviour	Value is created through the performance of pro-social behaviour.	Butler, Gordon, Roggeveen, Waitt and Cooper (2016), Gordon, Dibb, Magee, Cooper and Waitt (2018)

Table 3.1: Perspectives of value in marketing and social marketing (based on Minkiewicz et al. 2014; Gordon et al. 2018).

Value-in-use

As the field progressed, Zeithaml's perception of value as a trade-off between "*sacrifice*" and a resulting "*benefit*" (1988, p. 14), gradually became outdated. Marketing shifted from Bagozzi's exchange paradigm (1975) to the value co-creation paradigm (Vargo & Lusch 2006), from seller-buyer to consumer-producer relationships, while new forms of value emerged, as Sheth and Uslay (2007) explained. Vargo and Lusch (2004; 2006) discussed the importance of value-in-use. They deployed Constantin and Lusch's (1994) notion of operant and operand resources, and developed their theory from the idea that "*resources are not; they become*" (Vargo & Lusch 2004, p. 2). As they suggested, "*value is perceived and determined by the consumer on the basis of "value in use". Value results from the beneficial application of operant resources sometimes transmitted through operand resources. Firms can only make value propositions*" (Vargo & Lusch 2004, p. 7). As Sandtröm et al. (2008) explained, the organisation offers a functional and an emotional value proposition, which are then processed through consumers' individual and situational filters. This filtering is only performed when the customer makes use of the offering.

Value-in-experience

When first discussing value co-creation, Prahalad and Ramaswamy (2004a) emphasised the idea that value is unique to each consumer, and it emerges from the whole consumption experience. They suggested that organisations should provide high quality customer-firm interactions, and "*focus on innovative experience environments*" (Prahalad & Ramaswamy 2004b, p. 5). Later, Holbrook (2006) chose to adopt the term 'consumption experience'. The author perceived customer value as "*an interactive relativistic preference experience*" (Holbrook 2006, p. 715). This experience "*involves an interaction between an object (e.g. a product) and a subject (e.g. a consumer)*" (ibid., p. 715).

Value-in-context

Vargo and Lusch (2008) suggested that value-in-use as a term could be extended in order to include the wider service systems in which firms and consumers belong. Value is co-created when the systems interact and make value propositions to each other which may be accepted, rejected or unnoticed; when accepted they lead to resource integration, which results in the development of value for the participating systems. The authors suggested that the term value-in-context would be a more descriptive and thus more appropriate term, according to the foundational premises FP9 and FP10 of the Service Dominant Logic, which will be explained in 3.2.2. Through this conceptualisation of value, it is still clear that the consumer is considered as the main “*resource integrator*”, and the one who defines value in a unique way (Vargo 2008, p. 213).

Value-in-behaviour

Butler et al. (2016) offered a new way of thinking about value in social marketing. The authors pointed out that in social marketing not all behaviours come from interactions which could be seen as service encounters. In accordance with social ecological approaches and following the rationale behind the notion of value-in-context, the authors recommended the term ‘value-in-behaviour’, later adopted by other authors as well (e.g. Gordon et al. 2018). Value-in-behaviour is acquired through the performance of a positive behaviour, as are those recommended by social marketing.

3.2.2 Value co-creation and the Service-Dominant Logic

The origins of the idea of value co-creation date back to 2004. The term was almost simultaneously generated from two sides. Vargo and Lusch (2004) explained how marketing emerged in the early 1920’s as a field complementary to economics, responsible for the distribution of goods which were manufactured by organisations. They cited the work of Copeland (1923) as one of the early marketing scholars, whose work represented this early conception of marketing. They then suggested that the problem of this perspective at the time (2004), was that changes had occurred in how value was assumed to be created. Back in the 1920’s, value was considered to be

embedded in goods and was generated only within organisations. As time passed, there was a shift towards consumers, who started to gain power both in practice and in the minds of marketers, as well as a change in the understanding of the process and objects of exchange.

Vargo and Lusch (2004) placed emphasis on the intangible aspects of exchange, such as skills, knowledge and processes, and challenged the traditional distinction between products and services. They attempted to bridge the gap from an early to a more current understanding of marketing by introducing a new definition of services, which was closer to Gummesson's (1995) idea that customers purchase offerings rather than goods and/or services. *"Rather, we define services as the application of specialized competences (knowledge and skills) through deeds, processes, and performances for the benefit of another entity or the entity itself (...) Thus, the service-centred dominant logic represents a reoriented philosophy that is applicable to all marketing offerings, including those that involve tangible output (goods) in the process of service provision"* (Vargo & Lusch 2004, p. 2). Resources, operand and operant, further indicated the importance of all actors participating in the consumption-production dialogue. The authors later developed the theory of Service-Dominant Logic as a list of eight foundational premises, as seen in Table 3.2.

Number	Foundational premise
FP1	Service is the fundamental basis of exchange.
FP2	Indirect exchange masks the fundamental basis of exchange.
FP3	Goods are a distribution mechanism for service provision.
FP4	Operant resources are the fundamental source of competitive advantage.
FP5	All economies are service economies.
FP6	The customer is always a co-creator of value.
FP7	The enterprise can not deliver value, but only offer value propositions.
FP8	A service-centered view is inherently customer oriented and relational.
FP9	All social and economic actors are resource integrators.
FP10	Value is always uniquely and phenomenologically determined by the beneficiary.

Table 3.2: Foundational premises of S-D logic (Vargo et al. 2008, p. 148)

The same year when Vargo and Lusch, drawing from earlier ideas of relationship marketing and services marketing developed the service-dominant logic, Prahalad and Ramaswamy (2004) approached value co-creation from the perspective of experiences as well as dialogue, which is also closely related to previous ideas on relationship marketing. The authors challenged the distinction of industry and market, as two sides that are clearly separated and only come in contact during an exchange. They identified a common ground between the two, where value co-creation is facilitated through interactions between customers and organisations. They suggested that the main ingredients of the co-creation process were transparency, access, ability to compare risks and benefits, and dialogue. Ideas mentioned by Prahalad and Ramaswamy, which did not appear in Vargo and Lusch's initial publications were: experiences, problem identification and solving, consumer communities' personalisation of experiences and

innovation. They also emphasized the importance for a company to facilitate co-creation, to provide an environment where this dialectic process can be encouraged and maintained.

The initial ideas around value co-creation were followed by a rich literature extending and challenging them, which keeps developing until the present time. Gummerus (2013) proposed a clearer distinction between value creation processes and outcomes, which did not exist in the Service-Dominant Logic. In an additional attempt to expand the SDL, Grönroos and Voima (2013) suggested that the notion of interaction should also be considered. According to their definition “*interactions are situations in which the parties are involved in each other’s practices*” and interactions are achieved through “*physical, virtual, or mental contact*” (Grönroos & Voima 2013, p. 140). The authors divided interactions between customers and service providers into direct and indirect. Direct interactions involve both parties in a “*joint sphere*” (p. 143). Indirect interactions involve activities which influence both parties’ practices in the value creation process, but the parties function independently from one another. Table 3.3 illustrates the three main spheres involved in the co-creation process: “*provider sphere*”, “*joint sphere*” and “*customer sphere*” (p. 143). The role of the service provider is that of a value facilitator and co-creator, while the customer is a co-creator and independent creator of value, operating either individually or collectively.

	Provider sphere	Joint sphere		Customer sphere	
	Provider	Provider	Customer	Customer (individually)	Customer (collectively)
Value	Potential value-in-use	Value-in-use	Value-in-use	Value-in-use	Value-in-use
	Indirect interaction	Direct interaction		Indirect interaction	
	Value facilitation	Value co-creation	Value co-creation/ Value creation	Independent value creation	Independent social value co-creation
Value creation	The service provider facilitates (e.g. produces and delivers) the customer's value creation with resources/processes that are used and experienced in the customer sphere	The service provider's resources/processes/outcomes interact with the customer's resources/processes in a merged dialogical process	The customer's resources/processes interact with the service provider's resources/processes/outcomes in a merged dialogical process	The customer's resources/processes/outcomes (visible and/or mental) interact with the service provider's resources/processes/outcomes in an independent (individual and/or social) value creation process (indirect interaction)	Other actors/activities/resources interact with the customer's resources/processes/outcomes (visible and/or mental) in a collective/social value creation process
			Line of visibility/provider control		

Table 3.3: Roles and interactions between customers and service providers in value co-creation. (Adapted from Grönroos and Voima 2013, p. 143).

Boysen Anker et al. (2015) added a new perspective to the above logic. The authors reviewed the existing literature, highlighting that until that time there were two approaches, the Product-Dominant Logic (PDL) also termed as Goods-Dominant Logic (Vargo & Lusch 2008), which stemmed from exchange-based models, and the Service Dominant Logic (SDL). They recommended adding a new perspective, named the Consumer Dominant Logic (CDL). Based on Grönroos and Voima's (2013) idea that the customer always creates value, and the fact that there are processes beyond the marketer's control which impact the value created by consumers, they proposed the acceptance of the idea that value creation is consumer-dominant rather than service-dominant. Consumers were considered capable of adjusting the offerings' properties and redefine meanings. However, this approach, if misinterpreted, may bear a risk of dismissing the role of the provider, who now has a variety of tools available to understand and influence consumer behaviour.

3.2.3 Value co-creation in social marketing and gamification

In social marketing, there is an evident emphasis on creating value for consumers. As Lefebvre's "*integrated social marketing idea*" (2011, p. 59) indicates, the "*audience benefit*" is the centre of focus for behaviour change programmes, and is not necessarily congruent with the objectives of the intervention provider. Table 3.4 presents examples from the social marketing literature, which involve the idea of value co-creation. Domegan et al. (2013) observed a trend in the field towards the idea of value co-creation and examined the literature to discover a high level of theoretical, practical and ethical compatibility with social marketing. The authors identified three processes of value co-creation in social marketing: "*co-discovery*", which pertains to the understanding of the potential benefits of an intervention from both parties; "*co-design*", which refers to the development of the programme; and "*co-delivery*", which is the collaborative implementation of the designed plan (Domegan et al. 2013, pp. 242-244). A number of issues with co-creation were identified as well, one of which was that complete consumer empowerment may not be possible, the way it may appear in commercial marketing contexts. Consumers may lack the essential skills and knowledge to make optimal behavioural choices by themselves. As the authors pointed out, "*it may be necessary for social marketers to accept that empowerment can only ever be partial, constrained, compromised*" (Domegan et al. 2013, p. 247), and that expert opinion will always be required. The latter was further supported by Dietrich et al. (2016), who explained that there is a spectrum between "*expert-driven*" and "*consumer-driven*" social marketing programmes (p. 44). Most programmes fall somewhere within that spectrum, depending on the level of consumer involvement in the co-design process.

Source	Context	Type of paper	Key points
Social Marketing			
Desai (2009)	Relationship management and value co-creation in social marketing	Conceptual	<ul style="list-style-type: none"> ▪ Relationship management is getting closer to social marketing and is facilitated by interactive technologies. ▪ Co-creation occurs through dialogue between consumers and social marketers. ▪ Potential for better offerings, minimising negative effects.
Domegan, Collins, Stead, McHugh and Hughes (2013)	Compatibility between social marketing and value co-creation theory	Conceptual	<ul style="list-style-type: none"> ▪ The fields are compatible, but implementation raises some challenges. ▪ Value co-creation takes the form of co-discovery, co-design and co-delivery.
Luca, Hibbert and McDonald (2016b)	The applicability of SDL in social marketing	Conceptual	<ul style="list-style-type: none"> ▪ SDL is applicable under conditions. ▪ Networks, relationships, collaboration and competition, customer orientation and engagement are important.
Dietrich, Rundle-Thiele, Schuster and Connor (2016)	Binge drinking	Content analysis of co-design sessions	<ul style="list-style-type: none"> ▪ Audience-driven design may be preferred over expert-driven. ▪ Challenges may emerge in co-design dialogue with adolescents.
Leo and Zainuddin (2017)	Value destruction in diverse social marketing services	Qualitative (interviews, focus groups)	<ul style="list-style-type: none"> ▪ Destruction can occur through incongruent use or misuse of resources. ▪ Destruction may result in reduction or cessation of use, or development of strategic solutions.
Zainuddin, Dent and Tam (2017)	Value creation and destruction in health behaviour	Netnography	Barriers and facilitators of behaviour maintenance influence value creation and destruction.

Table 3.4: Value co-creation in social marketing

In Chapter 2, it became apparent how technological developments offered new approaches to social marketing. As Lefebvre (2010, p. 71) highlighted: *“While the reality has not changed, what these new technologies make plain is that it is, indeed, a networked world –one in which we do not design ‘messages’ for priority audiences, stakeholders, partners, donors and other groups, but a world in which they talk back to us, and more importantly, with each other”*. Indeed, technology has improved the opportunities for value co-creation between providers and consumers, as well as between consumers. Desai (2009) explained how 2.0 technology enabled social marketers to reach larger audiences, interact with them, build

relationships and contribute as active partners. Luca et al. (2016b) explored the applicability of SDL in social marketing, and emphasised the importance of networks, relationships, collaboration, competition, and recommended a focus on customer orientation and engagement. Loane et al. (2015), applied Holbrook’s (2006) typology of consumer value in online health communities. The authors discovered that consumers co-created value, which would be difficult to obtain in traditional healthcare contexts. Apart from aspects such as information exchange, feelings of mutual appreciation and support, fun and enjoyment, a key theme in this study was that users acknowledged the “*community value*” as an additional form of value emerging from their online experience (Loane et al. 2015, p. 361).

Source	Context	Type of paper	Key points
Gamification			
Huotari and Hamari (2012; 2017)	Services marketing	Conceptual	<ul style="list-style-type: none"> ▪ Definition of gamification from a services marketing perspective. ▪ SDL and value co-creation are relevant in gamification contexts.
Hawkins (2017)	Physical activity	Survey	<ul style="list-style-type: none"> ▪ Participants could behave as positive, negative or neutral co-creators. ▪ Each group had different preferences. ▪ Value was perceived as functional, social and emotional.
Leclercq, Poncin and Hammedi (2017)	New Product Development platforms	Cluster analysis, netnography, multiple regression analysis	<ul style="list-style-type: none"> ▪ Gamification mechanics involved competition and cooperation. ▪ Participants were categorised as competitors, cooperators, coopetitors and invisible users. ▪ Participants' engagement had positive and negative behavioural, emotional and cognitive outcomes.
Nobre and Ferreira (2017)	Brand management	Qualitative (interviews, focus groups)	<ul style="list-style-type: none"> ▪ Gamified systems are platforms of brand engagement and relationship enhancement. ▪ Consumers seek for fun, rewards, competition, social interactions, recognition, customisation, and community. ▪ Gamification facilitates brand value co-creation and innovation.

Table 3.5: Value co-creation in gamification

Table 3.5 presents studies related to value co-creation, coming from the field of gamification. Huotari and Hamari (2012; 2017) adopted the SDL, provided a definition

of gamification from a service marketing perspective, and discussed that value is co-created in gamified systems/services. Gamified systems which allow users to join a social network, provide a platform for them to interact with each other and brands, and to co-create brand value through a collaborative process (Nobre & Ferreira 2017). Following similar processes, consumers can be willing to engage in New Product Development, co-creating value through a combination of collaboration and competition, which may have positive but also possibly negative effects in a group project (Leclercq et al. 2017).

Hawkins (2017) acknowledged the contribution of social marketing in behaviour change programmes which may effectively increase people's daily physical activity. The author investigated FitBit as a gamified system and explored the collaborative, co-creation capacity of the application. The author suggested that gamification has great value co-creation potential, and recommended further research in the area.

3.2.4 Creation or destruction?

Although the relevant literature of social marketing has largely focused on value co-creation, there may also be situations where co-creation is inhibited (Minkiewicz et al. 2014) or value is co-destroyed (Plé & Cáceres 2010; Echeverri & Skålén 2011; Zainuddin et al. 2017). According to Minkiewicz et al. (2014), there may be circumstances that drive or inhibit consumers' participation in the co-creation process. In their research on the heritage sector they discovered that the same factors which drive co-creation may also inhibit it. Examples of such factors are consumers' previous experiences of the offering, preconceptions or familiarity with it. Consumers may also choose to keep to themselves, therefore not benefiting from the offering's co-creation potential (ibid.).

In social marketing research (Table 3.4), Leo and Zainuddin (2017) explored the phenomenon of value destruction in social marketing services. The authors discovered that value destruction was the outcome of consumers' "*incongruent resource application and misuse of firm resources*" (ibid., p. 405). Value destruction could result in "*reduced usage of the service, termination of service and strategic*

behavioural actions” (ibid., p. 405). Zainuddin et al. (2017) discussed the facilitators as well as the barriers consumers face which may reduce or destroy value. In their paper on social marketing and behaviour maintenance, the authors identified two main reasons for value destruction. Firstly, “*physical and mental discomfort*”, referring to “*the physiological and psychological distress that participants experienced when trying to maintain positive social behaviours*” (Zainuddin et al. 2017, p. 359). It was observed that this barrier was reduced as time passed and consumers were accustomed to the new behaviours. Secondly, “*time and effort*” which refers to “*the non-monetary costs associated with undertaking prosocial behaviours in social marketing*” (p. 360) was also a barrier causing value destruction. This was attributed to the fact that consumers may struggle to keep balances between their behaviour change/maintenance efforts and their other life commitments or choices.

3.2.5 Research Question 1

Social marketers have demonstrated an increasing interest in value co-creation (Desai 2009; Domegan et al. 2013), dialogue with consumers (Dietrich et al. 2016), the Service-Dominant Logic (Luca et al. 2016b), and have pointed out the need for better understanding of value creation as well as destruction (Leo & Zainuddin 2017; Zainuddin et al. 2017). Gamification scholars have embraced SDL (Huotari & Hamari 2012; 2017), and some studies have explored co-creation (Hawkins 2017; Leclercq et al. 2017; Nobre & Ferreira 2017), while there is certainly potential for further research, considering the diversity of gamified systems. According to the above, the main Research Question of this study is formulated as follows:

RQ1: What processes contribute to positive or negative value creation in a gamified social networking site for physical activity?

The response will include themes of value creation, positive and negative, positioned within the chosen field and analysed. The perspective of social marketing will be kept, along with the question ‘*what can we learn from these processes?*’ A microscopic view will be adopted to provide detail and depth, within the limits of this project.

3.3 Motivation: Research Question 2

3.3.1 Motivation and the Self-Determination Theory

Motivation is a construct which intends to explain human behaviour: *“The study of motivation concerns those processes that give behavior its energy and direction. Energy implies that behavior has strength - that it is relatively strong, intense, and persistent. Direction implies that behavior has a purpose - that it is aimed or guided toward achieving some particular goal or outcome”* (Reeve 2005, p. 6). Deci and Ryan (1985a) discussed the extrinsic and intrinsic motivation continuum. They explained that when the basic psychological needs of autonomy, competence and relatedness are being met, motivation tends to be more internalized, and activities tend to feel enjoyable for their own sake. The more motivation relies on external stimuli such as rewards or punishments, the further the motivation moves towards the extrinsic side of the continuum. The activity then becomes dependent on those stimuli to be performed by individuals.

Self-Determination Theory is a theory of Social Psychology which explains the mechanisms of intrinsic motivation in the behavior of human beings. It was initially developed to examine how extrinsic rewards influence intrinsic motivation (Deci 1971), and since then it has been extended to specific mini theories and has been applied in many different contexts (Deci & Ryan 2008; Van Lange et al. 2012). SDT has been applied in health behaviour change, particularly for weight management, obesity prevention, and physical activity (Patrick et al. 2010; Silva & Vieira 2010; Teixeira et al. 2012), and in public policy to encourage better consumer decisions (Moller et al. 2006). Applications can also be found in commercial marketing in the areas of customer loyalty (Lin et al. 2009) and relational marketing (Dholakia 2006).

The main difference that separates SDT from other social psychological theories that try to explain and predict the driving mechanisms of human behaviour is that it focuses on the individuals' inherent will to develop and improve themselves. It argues that this is part of human nature which cannot be taught by external sources, but can be given or be deprived of the nutrients it requires to sustain itself (Deci & Ryan 2012). SDT

recognised the important role of attitudes, values and motivations typically adopted by social psychologists and the fact that they play an integral part in behaviour change research, but it supported the view that social environments do not teach people how to think and behave, but rather reinforce or prevent the natural life-long development of intrinsic motivation. Influences from people's social environment can be incorporated in their own self-determination through internalisation and integration (Deci & Ryan 2012).

According to SDT there are at least three basic psychological needs, autonomy, competence and relatedness. In the ideal condition when these are being met, intrinsic motivation develops itself throughout one's lifetime at an optimal level. These are not strictly defined constructs, or characteristics that are present in one's personality or can be added in a certain way, but they are the basic underlying needs that shape behaviour. They are subject to individual adaptations, and their expression is different from one individual to another.

- *Autonomy* refers to the need for one's actions to be self-determined, to be based on one's personal characteristics and preferences, beliefs, values and goals.
- *Competence* is the innate need to feel that one has the abilities and skills to take action and to overcome challenges.
- *Relatedness* is the need to connect with others, to be able to care and be cared for, to build personal relationships and to have the sense of belonging to a wider community.

These three needs are the foundations of SDT, which shape intrinsic motivation and play a vital part in personal growth and well-being (Deci & Ryan 2012).

SDT has been widely applied and expanded, to the point that today it involves more specific mini-theories covering various topics, four of which are the most prevalent (Deci & Ryan 2012). Cognitive Evaluation Theory addresses how social contexts and interpersonal interactions may affect intrinsic motivation, and how external stimuli such as extrinsic rewards satisfy or undermine the needs for autonomy and competence (Deci & Ryan 2008). Organismic Integration Theory examines the integrative

processes through which the external motives become part of one's own regulation of actions in varying degrees (Deci & Ryan 2002). Causality Orientations Theory introduces the idea of 'locus of causality' (Deci & Ryan 2012), referring to whether the individual's motivation is autonomous or controlled; it focuses on who controls motivation, as opposed to who controls the outcomes of behaviour, found in the pre-existing notion of locus of control (Rotter 1966). Finally, the Basic Psychological Needs Theory addresses how human behaviour, through the satisfaction of basic psychological needs, affects well-being (Ryan et al. 2008).

Although SDT has been developed and utilised mainly in quantitative research, the constructs of basic psychological needs have also been used in qualitative inquiry (Vazou et al. 2005; Hassandra et al. 2003). Their open and adaptive nature potentially make them the ideal lenses from which to explore different kinds of social gatherings, such as those hosted in gamified systems, where motivation can play an important part for users to engage with a platform and its social interactions.

3.3.2 Self-Determination Theory in gamification and social marketing

SDT has been used extensively in gamification studies; according to a recent review by Bozkurt and Durak (2018), SDT was far more prevalent than any other theoretical framework, followed by Csikszentmihalyi's (2002; 2009) flow theory and Hunicke et al.'s (2004) MDA (mechanics dynamics aesthetics) model. On the other hand, it has been acknowledged but not widely deployed in social marketing. Table 3.6 presents studies using SDT in both fields.

Source	Context	Type of paper	Key points
Social Marketing			
Binney, Hall and Oppenheim (2006)	Environmental intervention for rabbit control	Analysis of secondary sources, focus groups, in-depth interviews, survey	Intrinsic motivation, based on SDT, and ability were significant predictors of behaviour.
Zainuddin, Dent and Tam (2017)	Selected personal health causes (e.g. physical activity, nutrition, smoking cessation)	Netnography	<ul style="list-style-type: none"> ▪ Participants were allowed to select health behaviours, to enhance autonomy according to the SDT. ▪ Value creation, destruction, and dimensions of perceived value were analysed.
Mitchell, Schuster and Drennan (2017) (incorporated gamification)	Improving physical activity (walking) using a gamified mobile app	Experiment	<ul style="list-style-type: none"> ▪ Intrinsic motivation as conceptualised by the SDT was measured before and after the intervention and remained stable. ▪ Physical activity increased.
Gamification			
Mekler, Brühlmann, Opwis and Tuch (2013)	Image annotation task	Online experiment	<ul style="list-style-type: none"> ▪ Points, levels and leaderboards did not influence intrinsic motivation. ▪ Task performance improved. ▪ Game elements acted as performance indicators.
Hanus and Fox (2015)	Student engagement in a classroom	Experiment	<p>Use of leaderboards and badges in a course resulted in:</p> <ul style="list-style-type: none"> ▪ lower intrinsic motivation, satisfaction and empowerment over time. ▪ lower exam performance compared to control group.
Mekler, Brühlmann, Tuch and Opwis (2017)	Image annotation task	Online experiment	<ul style="list-style-type: none"> ▪ Points, levels and leaderboards did not influence competence or intrinsic motivation, irrespective of causality orientation. ▪ Task performance improved. ▪ Game elements functioned as extrinsic incentives.
Sailer, Hense, Mayr and Mandl (2017)	Internal handling of materials and supplies at production or delivery sites	Online experiment	<ul style="list-style-type: none"> ▪ Badges, leaderboards and performance graphs influenced competence and autonomy. ▪ Avatars, a meaningful story and team mates influenced relatedness.
Van Roy and Zaman (2018)	Higher education	Qualitative analysis of surveys and focus groups	<ul style="list-style-type: none"> ▪ Autonomy, competence and relatedness can be satisfied or thwarted ▪ Situational factors play a role.
Mitchell, Schuster and Jin (2018)	Employee motivation	Survey	<ul style="list-style-type: none"> ▪ Extrinsic motivation decreased autonomy and competence satisfaction. ▪ When internalised, it improved need satisfaction, intrinsic motivation, and behavioural intentions.

Table 3.6: Application of the Self-Determination Theory in social marketing and gamification.

In social marketing, Binney et al., (2006), conducted a study on an intervention for rabbit control. They found that intrinsic motivation, measured based on SDT, and ability were significant predictors of pro-environmental behaviour. Zainuddin et al. (2017), in their study on value co-creation and destruction, allowed participants to choose their preferred target behaviour, in order to satisfy the need for autonomy, according to SDT. In Mitchell et al.'s (2017) study, which combined gamification with social marketing, SDT was the theoretical framework. The findings indicated that intrinsic motivation was not increased through a 4-week gamified intervention, but sustained behaviour change was achieved. However, the study participants reported usability issues with the gamified app, as well as thinking that the app was boring, which might have an impact on intrinsic motivation. Furthermore, the study was focused on autonomy and competence, while the authors did not refer to any social interactions between participants, and did not consider the need for relatedness.

In gamification studies, Hanus and Fox (2015) used SDT to measure the effects of leaderboards and badges on student engagement at school. They observed that students of a gamified course, compared to a control group participating in a non-gamified course, had lower intrinsic motivation and their performance was lower in the exams at the end of the semester. Mekler et al. (2013) applied gamification to an image annotation task, in an experimental setting. Points, levels and leaderboards had no significant effect on intrinsic motivation but they appeared to improve task performance. A similar study was conducted by Mekler et al. (2017), including Deci and Ryan's (1985b) causality orientation. The results were no different from the first study, and the authors considered points, levels and leaderboards as extrinsic motivators in this specific context.

Sailer et al. (2017) used SDT in an online experiment, tried different combinations of game elements, and measured their impact on psychological need satisfaction. The authors concluded that badges, leaderboards and performance graphs supported autonomy and competence, while avatars, a meaningful context and team mates supported relatedness. Upon reflection, they pointed out that many of the participants had not noticed or completely understood the game elements, and suggested that this

should not be assumed in the future. Furthermore, they observed that aesthetics and overall implementation of gamification was important for participants. Mitchell et al. (2018) highlighted the importance of providing to employees rewards that are valuable and meaningful to them, to foster internalisation and enhance motivation. Finally, van Roy and Zaman (2018) conducted a qualitative study on a 15-week postgraduate course where a gamified platform was optionally used. The findings were mixed as the authors pointed out, due to differences in how people valued each of the basic psychological needs, as well as situational factors. Importantly, the authors recommended a shift of focus, from attempting to increase intrinsic motivation, to understanding better how the psychological needs are being satisfied: *“Instead of directly linking gamification to motivation, adding the intermediate variable of basic psychological needs can help in response to the question how gamification works”* (ibid., p. 9). They suggested that both quantitative and qualitative studies should be conducted; the former would help measure the game elements’ impact on needs satisfaction, and the latter *“will help in understanding how this process unfolds”* (ibid., p. 9).

SDT has been explored very little from a qualitative methodological perspective. In the field of game design, studies such as Cruz et al.’s (2017) exploration of the motivational capabilities of badges through focus groups, which followed SDT, indicated that qualitative studies have a great potential in adding depth of understanding and contributing to current discussions. The authors concluded that *“badge systems can enhance motivation for interested players, and increase enjoyment, engagement, and time spent playing the game”* (ibid., p. 523), despite the fact that badges were widely regarded as extrinsic motivators. Consequently, it can be argued that more qualitative studies exploring the constructs of the SDT in gamification contexts could prove valuable in generating insights.

3.3.3 Research Question 2

SDT is a commonly used theoretical framework in gamification studies (Bozkurt & Durak 2018), while it has been acknowledged but not frequently used by social marketers (Binney et al. 2006; Zainuddin et al. 2017; Mitchell et al. 2017). In

gamification, SDT has been implemented often in experimental settings (Mekler et al. 2013; Hanus & Fox 2015; Mekler et al. 2017; Sailer et al. 2017), where the overall design of the system (Sailer et al. 2017), as well as the level of participants' interest in tasks such as image annotation, may have prevented scholars from understanding how well-implemented game elements, used in contexts meaningful to participants, can enhance motivation. Furthermore, there has been a lack of qualitative studies in gamification using SDT, although in game design it has been proven as a sound approach (Cruz et al. 2017), and supported by influential gamification authors (Nacke & Deterding 2017). Finally, as one of the first studies to combine gamification with social marketing deployed SDT (Mitchell et al. 2017), it is considered as a natural step to continue the discussion and explore the constructs of the theory in greater depth. Considering the above, Research Question 2 is formulated as follows:

RQ2: In what ways can the main constructs from the Self-Determination Theory, intrinsic motivation, autonomy, competence, relatedness and extrinsic motivation, help explain the motivation behind value creation processes (identified in RQ1) in a gamified social networking site for physical activity?

The response to the question will be developed according to participants' accounts, in which I will seek to find connections between the main constructs of SDT and participants' engagement with the gamified system. I will investigate how value creation processes are being fuelled and how they may support need satisfaction. I will observe, following Cruz et al. (2017) and Mekler et al (2017), the extent to which game-like rewards are seen as extrinsic forms of motivation, and whether they appear to have an impact on intrinsic motivation. Finally, I will consider, according to participants' stories, how motivation manifested itself before they engaged in the gamified system.

3.4 Perceived value dimensions: Research Question 3

3.4.1 Perceived value

As explored in 3.2, value co-creation has been embraced by social marketers as a collaborative approach which empowers individuals to participate actively in societal change (Domegan et al. 2013). The notion of ‘value-in-use’ supported by the Service-Dominant Logic (Vargo & Lusch 2004) refers primarily to the process out of which value is created. ‘Use’ (ibid.), as well as ‘experience’ (Prahalad and Ramaswamy 2004a) are words which emphasise the processes that take place for value to be created, while later development of the concept of value co-creation, analysed the customer-provider interactions involved in these processes (Grönroos & Voima 2013). Discussions pertaining to the processes and interactions do not address the output; the value that the customers receive, understand and evaluate. In a further investigation of value creation facilitated in gamified systems for physical activity, this study sought to unravel how customers view the benefit they obtain from the processes of value creation. For that purpose, the notion of perceived value has been deployed, with a view to analyse it through its different dimensions.

Zeithaml (1988) was among the authors who set the foundations of our current understanding of perceived value (Dodds & Monroe 1985; Monroe 1990). His definition (see 3.2.1) is congruous with exchange-based approaches and indicated that perceived value is the way a consumer evaluates a purchase, a construct which “*varies across consumers*” (Zeithaml 1988, p. 14). “*What is given*” (ibid., p. 14) can be monetary, or non-monetary, involving money, time and effort, according to the author. As specified in a review by Sánchez-Fernández and Iniesta-Bonillo (2007), the influential work of Zeithaml and Monroe conceptualised perceived value as a “*uni-dimensional construct*” (ibid., p. 430).

Later conceptualisations (e.g. Sheth et al. 1991; Babin et al. 1994; Holbrook 1999; Holbrook 2006; Mathwick et al. 2001; Sweeney & Soutar 2001; Koller et al. 2011) considered perceived value as a “*multi-dimensional construct*” (Sánchez-Fernández & Iniesta-Bonillo 2007, p. 430). Perceptions of value constituted a combination of

functional value (Sheth et al. 1991; Sweeney & Soutar 2001; Holbrook 2006; Koller et al. 2011), social value (Sheth et al. 1991; Sweeney & Soutar 2001; Holbrook 2006; Koller et al. 2011), emotional value (Sheth et al. 1999; Sweeney & Soutar 2001; Koller et al. 2011), epistemic value (Sheth et al. 1991), conditional value (Sheth et al. 1991), economic value (Holbrook 2006; Koller et al. 2011), ecological value (Koller et al. 2011), hedonic value (Babin et al. 1994; Holbrook 2006), altruistic value (Holbrook 2006), utilitarian value (Babin et al. 1994), playfulness, aesthetics, customer return on investment (CROI), and service excellence (Mathwick et al. 2001). Certain dimensions of perceived value have overlapped conceptually, such as utilitarian and functional value, or aesthetics and hedonic value, while the substantial variations in the choice of value dimensions in studies such as Holbrook (2006) and Mathwick et al. (2001) indicated that the suitability of dimensions can vary depending on the context in which perceived value is being investigated.

3.4.2 Dimensions of perceived value in social marketing and gamification

The idea of perceived value has been adopted by social marketers, particularly in public health contexts, as a way of understanding how target audiences assess the output of value co-creation in social marketing interventions. Zainuddin et al. expressed the belief that *“an understanding of customer value in the consumption of social products (such as preventative health services) is a necessary first step and an important aspect of designing social marketing interventions that can effectively change social behaviours, which ultimately benefit society”* (Zainuddin et al. 2011, p. 363). Table 3.7 provides a summary of the value dimensions as explored by social marketing and gamification scholars. Studies conducted by Zainuddin et al. (2011), Zainuddin et al. (2013) and Zainuddin et al. (2016) focused on preventative health care services, and followed a combination of Sheth et al.’s (1991) and Holbrook’s (2006) approaches, recognising the functional, emotional, social and altruistic dimensions of perceived value for target audiences.

Mulcahy et al. (2015) took a different perspective. The authors explored perceived value for players of an electronic game for moderate drinking, and followed Mathwick et al.’s approach (2001), identifying Customer Return On Investment, playfulness,

aesthetics, and service excellence as perceived value dimensions. The constructs of hedonic and functional value (e.g. Holbrook 2006) have been mentioned as well; the authors considered aesthetics and playfulness as “*hedonic dimensions of value*” (Mulcahy et al. 2015, p. 271), and CROI and service excellence as “*the more functional dimensions of value*” (ibid., p. 271). Finally, the authors pointed out that active value (playfulness and CROI) was more important for players than reactive value (aesthetics and service excellence) (ibid.). However, it can be argued that the essence of the SDL (Vargo & Lusch 2004) contradicts the notion of Mathwick et al.’s (2001) active and reactive value, as all value is considered as an outcome of interaction (Grönroos & Voima 2013). The latter perspective has been followed in the present study as well.

In social marketing, as mentioned in 3.2, Butler et al. (2016) introduced the notion of ‘value-in-behaviour’. The authors’ identified value dimensions were functional, economic, emotional, social and ecological (ibid.); the latter being linked to French and Gordon’s (2015) ‘societal value’, which refers to the value of the perceived impact one’s behaviour has to society. Finally, in a netnographic study on Twitter, Zainuddin et al. (2017) reviewed existing dimensions found in commercial and social marketing, and identified the most relevant to their study on maintenance of selected health behaviours; functional, emotional, social, epistemic, as well as the additional notion of ‘community value’, previously found in Loane et al. (2015), which emphasised the perceived value of belonging to a social group.

Source	Context	Value dimensions
<i>Social Marketing</i>		
Zainuddin, Previte and Russel-Bennett (2011)	Breast-screening services	functional emotional social altruistic
Zainuddin, Russel-Bennett and Previte (2013)	Preventative health services	functional emotional
Mulcahy, Russel-Bennett and Rundle-Thiele (2015)	Electronic games for moderate drinking	Customer Return On Investment playfulness aesthetics service excellence
Butler, Gordon, Roggeveen, Waitt and Cooper (2016)	Energy efficiency	functional economic social ecological
Zainuddin, Tam and McCosker (2016)	Health care self-service, bowel screening	functional emotional social
Zainuddin, Dent and Tam (2017)	Selected personal health causes (e.g. physical activity, nutrition, smoking cessation, and mental health)	functional emotional community social epistemic
Mulcahy, Russell-Bennett and Iacobucci (2018)	Serious games for sustainable household energy usage	knowledge enjoyment
Gordon, Dibb, Magee, Cooper and Waitt (2018)	Energy efficiency	functional economic emotional social ecological
<i>Gamification</i>		
Koivisto and Hamari (2014)	Physical activity	social hedonic utilitarian
Hawkins (2017)	Physical activity	functional emotional social

Table 3.7: Dimensions of perceived value in social marketing and gamification

It should be noted that studies which adopted Vargo and Lusch's Service-Dominant Logic (2004), interpreted perceived value as 'experiential value', thus favouring the concept of value-in-experience (Prahalad and Ramaswamy 2004a) as opposed to Vargo and Lusch's (2004) value-in-use (Zainuddin et al. 2011; Zainuddin et al. 2013; Mulcahy et al. 2015; Zainuddin et al. 2016; Zainuddin et al. 2017). This combination of approaches appears to have served the purposes of the studies, and may not be seen as problematic, as the concepts of 'experiential value' and 'value-in-use' bear similarities (e.g. Sandström et al. 2008), and both emphasise the participation of the customer in the process of value co-creation. Furthermore, the idea that the choice of value dimensions for analysis relies on the context of each study has been highlighted by Butler et al. (2016). The authors mentioned that they selected to analyse functional, economic, emotional, social and ecological value "*as these were identified as the most relevant to the topic area*" (ibid., p. 150). Therefore, adaptations of different approaches and additions of new dimensions in previous studies, supported by Sánchez-Fernández and Iniesta-Bonillo's (2007) belief that perceived value is complex and dynamic, highlight that such open-mindedness is essential in implementing this concept to a variety of different contexts.

From the viewpoint of gamification scholars, gamified systems have been defined from a services marketing perspective, and the importance of value co-creation has been highlighted (Huotari & Hamari 2012; 2017). However, there has been little discussion in regard to the dimensions of perceived value in gamified systems. Koivisto and Hamari (2014) analysed the perceived benefits for customers of Fitocracy; a gamified system for physical activity. The authors' study included social, hedonic and utilitarian benefits, as well as 'facilitators' which included 'network exposure' and 'ease of use' (ibid.). The variables chosen by Koivisto and Hamari (2014) follow a different approach and thus cannot be clearly linked to value dimensions from studies in the field of social marketing. Hawkins' (2017) thesis was slightly closer to the literature of social marketing. The author studied value co-creation and perceived value for the users of Fitbit, which is also a gamified system for physical activity. The findings suggested that functional value was the most important dimension for users, emotional

value was second, and social value was important for some users and not important for others (ibid.).

3.4.3 Research Question 3

Although the centrality of audience benefit for social marketing interventions has been recognised (Weinreich 2006; Lefebvre 2011), and dimensions of perceived value have been explored by social marketers in various contexts (Butler et al. 2016; Mulcahy et al. 2015; Zainuddin et al. 2011; Zainuddin et al. 2013; Zainuddin et al. 2016; Zainuddin et al. 2017), there has been little discussion on how these dimensions are being processed, understood, and evaluated by the target audiences. Furthermore, despite the interest of gamification scholars in services marketing (Huotari & Hamari 2012; 2017), studies addressing perceptions of value are scarce (Koivisto & Hamari 2014; Hawkins 2017) and may follow different conceptual frameworks from those of social marketing (Koivisto & Hamari 2014). On the other hand, in social marketing, there is some evidence of how value is perceived in full-fledged games (Mulcahy et al. 2015). However, as gamified systems have only recently been viewed from the perspective of social marketing (Mitchell et al. 2017), there is a lack of research exploring how perceived value, as conceptualised and studied in social marketing, is viewed by the customers of such systems. Taking the above into consideration, Research Question 3 is formulated as follows:

RQ3: How do customers who engage in value creation processes (identified in RQ1) in a gamified social networking site for physical activity develop perceptions of value, acquired through these processes?

The response to the question seeks to analyse perceptions of value, based on their identified dimensions, as well as the perspective and the cognitive processes that customers present, through which value perceptions are being developed. The dimensions taken from the extant literature will be adapted to the findings of the study, and different angles will be found through which value perceptions were developed, according to the participants' responses.

3.5. Conclusion

In summary, three research questions have been developed according to previous literature. RQ1 seeks to develop an understanding of the processes that create value for customers of gamified systems for physical activity, and of occurrences that might interfere negatively with them. RQ2 asks ‘why’ questions from the above findings and attempts to explore constructs from the Self-Determination Theory to answer those questions; a theory which has become popular among gamification scholars and has been acknowledged by social marketers as well. RQ3 explores perceived value and its identified dimensions within a gamified system, building upon previous social marketing studies. RQ1 is the central question of the study, while RQ2 and RQ3 intend to add more depth to the findings and contribute richer insights to current research.

4. METHODOLOGY

4.1 Introduction

The present chapter outlines the ways in which the purposes of the research have been pursued. Firstly, it explains the underpinning philosophy, including the ontology, epistemology, theoretical perspective, methodology, axiology and subsequent ethical standards of this research. Secondly, it outlines the methods, beginning from the rationale behind the choice of Fitocracy as a site, how the study was designed and conducted, including the sampling approach, the netnographic diary, and the groups and individual interviews with participants. Furthermore, it discusses the processes followed during data analysis, the outputs of which will be presented in later chapters. It then explores issues of research quality, and explains how the study attempted to achieve transparency, reflexivity, transferability, ethicality and integrity. Finally, it draws the borders of the study, by clarifying which topics are not being addressed, as well as the naturally emerging limitations in the process. This chapter serves as a map of this study, where a reader could begin from, in order to get a clear picture of how the project unfolded.

4.2 Philosophical underpinnings

According to Guba and Lincoln (1994), in the beginning of a study, a researcher is expected to find and state the answers to three main philosophical questions: “*the ontological question*”, “*the epistemological question*” and the “*methodological question*” (p. 108). In doing so, one clarifies their choice of paradigm, a term which originates from Kuhn’s work (1962), referring to “*a set of beliefs or assumptions adopted by a scientific community which define the nature of the world and the place of individuals within it*” (O’Reilly & Kiyimba 2015, p. 3). These beliefs and assumptions undergird all decisions and processes selected throughout the study, from the formulation of the Research Questions, to the completion of the analysis.

It is widely understood that any paradigm is a “*human construction*” (Guba & Lincoln 1994, p. 108). It is an expression of the inquirer’s beliefs, which cannot be proven, as there is no universal truth which would serve as a reliable foundation for us all to

justify our arguments. The authors explain that this is the case with the outputs of research as well. Considering the fact that the questions, the approach, the methods followed are a result of human thinking, it is a natural conclusion that *“the sets of answers given are in all cases human constructions; that is they are all inventions of the human mind and hence subject to human error”* (Guba & Lincoln 1994, p. 108). As a consequence, a researcher is required to admit that no definite answers can be given, as is the case with the findings and conclusions of this study. After a prolonged period of continuous work, reading and research, the findings presented here remain, admittedly, my best possible logical interpretation.

4.2.1 Ontology

The etymological explanation of the word ‘ontology’ comes from the Greek language; it is a compound word (ontologia < onto- = *οντ-* (*ov*) -o- + -logia = *-λογία*), which means the thinking or studying of that which exists, of the being (Triantafyllides 2018). Throughout the centuries, ontological positions have been developed, which provided different theories around truth and existence. The origins of the word ontology will always remind us that it is our thinking, our own perception and consciousness that creates these ontological positions. This study is guided by the ontological position of relativism, a broad field of philosophy in itself, which is built around the belief that something exists only through its relationship with something else (O’Grady 2002). *“Calling something relative is to say that it arises from or is determined by something else; it is dependent on its relation to some other thing”* (ibid., p. 5). O’Grady examines relativism by comparing it to the complete opposite; absolutism: *“Something absolute is independent and doesn’t require relationship to anything else”* (ibid., p. 5). In research, relativism supports the view that something exists through its relationship with human cognition (O’Grady 2002; O’Reilly & Kiyimba 2015). Truth is therefore considered to be understood, individually, collectively and contextually through the processing of human thinking. The relativist ontological position is largely associated with what is known as qualitative methods (Guba & Lincoln 1994).

4.2.2 Epistemology

Epistemology is the theory of knowledge around what exists. In research, it is the answer to the “*epistemological question*” which refers to “*the nature of the relationship between the knower or would-be knower and what can be known*” (Guba & Lincoln 1994, p. 108). Crotty further explained that epistemology is connected to “*the understanding you and I have of what human knowledge is, what it entails, and what status can be ascribed to it*” (1998, p. 2). Epistemological positions are strongly connected to ontological positions (Guba & Lincoln 1994). For instance, a relativist ontology can never be linked to epistemological objectivism. Between the two remaining choices of constructionism and subjectivism, this study has followed the path of constructionism, according to which the truth is neither objective nor subjective (Crotty 1998). As the author explained, this epistemological position implies that “*all knowledge, and therefore all meaningful reality as such, is contingent upon human practices, being constructed in and out of interaction between human beings and their world, and developed and transmitted within an essentially social context*” (Crotty 1998, p. 42). The author pointed out that objects may exist in the world, “*but actual meaning emerges only when consciousness engages with them*” (ibid., p. 43).

It becomes apparent, that the epistemology of constructionism is compatible with ontological relativism in the sense that truth is understood only through its relationship with human consciousness. The participants are discussing with the researcher, who in turn attempts to search for the meaning behind these conversations. Knowledge, as a product of the relationship between what ‘is’ and the consciousness of the researcher and her participants, is also tied to its historical, political and cultural context, in which these people have developed their consciousness and ways of constructing meaning. Another important aspect of constructionism is that “*there is no true or valid interpretation*” (Crotty 1998, p. 47). The author explains that “*there are useful interpretations, to be sure, and these stand over against interpretations that appear to serve no useful purpose. There are liberating forms of interpretation too; they contrast sharply with interpretations that prove oppressive. There are even interpretations that may be judged fulfilling and rewarding – in contradiction to interpretations that*

impoverish human existence and stunt human growth. 'Useful', 'liberating', 'fulfilling', 'rewarding' interpretations, yes. 'True' or 'valid' interpretations, no" (ibid., pp. 47-48). Therefore, the methodological decisions of this study and their implementation have followed these principles, in pursuit of a specific purpose, which is to answer the Research Questions, as well as a broader ethical purpose of providing "*liberating*", "*fulfilling*" and "*rewarding*" interpretations to the collected data.

4.2.3 Theoretical perspective

Methodology is about the ways in which we seek to generate knowledge of what exists, and is largely connected to "*the assumptions about reality that we bring to our work*" (Crotty 1998, p. 2). The assumptions need to be clarified, as they are the foundation of the methodological approach of a study; they are referred to as "*theoretical perspectives*" (ibid.), although they can be found as "*theoretical frameworks*", "*paradigms*", or other terms used interchangeably; theoretical perspectives can even be considered as epistemological views by some researchers (O'Reilly & Kiyimba 2015, p. 11). In this chapter, Crotty's definition will be adopted, according to which "*'theoretical perspective' is...the philosophical stance lying behind a methodology. The theoretical perspective provides a context for the process involved and a basis for its logic and its criteria*" (Crotty 1998, p. 66). A theoretical perspective is related to, although not specifically determined by, the ontological and epistemological positions of the researcher. This brings the discussion back to the idea that "*different ways of viewing the world shape different ways of researching the world*" (ibid., p. 66). In this study, a theoretical perspective has been chosen, on the basis of its appropriateness to the purposes, as well as its compatibility with ontological relativism and epistemological constructionism.

Interpretivism is the theoretical perspective which seeks to "*discover and understand how people perceive, feel and experience the social world*" (O'Reilly & Kiyimba 2015, p. 11). Alternatively defined, interpretivism "*looks for culturally derived and historically situated interpretations of the social life – world*" (Crotty 1998, p. 67). Researchers following interpretivism "*aim to achieve an in-depth meaning of individuals' behaviour and motivations for it*" (O'Reilly & Kiyimba 2015, pp. 11-12).

According to Crotty (1998), it originates from Max Weber's work, who first introduced the ideas of *Verstehen*, which means 'understanding', and *Erklären*, which stands for 'explaining' (Weber 1949; Weber 1968). Interpretivism encompasses different schools of thought; mainly phenomenology, symbolic interactionism and hermeneutics (Crotty 1998). And, although the author suggests that a researcher should learn from all the above, and that there are common assumptions and similarities in the resulting methodologies, it is considered a best practice to select one guiding school of thought and follow its core principles. In this study, it is symbolic interactionism.

This stream "*explores the understandings abroad in culture as the meaningful matrix that guides our lives*" (Crotty 1998, p. 71). According to Blumer, there are three main principles in symbolic interactionism. Firstly, the principle "*that human beings act toward things on the basis of the meanings that these things have for them*" (Blumer 1969, p. 2). Secondly, "*that the meaning of such things is derived from, and arises out of, the social interaction that one has with one's fellows*" (ibid., p. 2). Lastly, the idea that "*these meanings are handled in, and modified through, an interpretive process used by the person in dealing with the things he encounters*" (ibid., p. 2). Therefore, truth is constructed through social interaction and interaction with the world, through a process of interpretation which is shaped by those interactions. At the heart of symbolic interactionism, lies the idea that the researcher needs to put herself into the participants' situation as much as possible. "*Methodologically, symbolic interactionism directs the investigator to take, to the best of his ability, the standpoint of those studied*" (Denzin 1974, p. 269). Ethnography, unsurprisingly, has largely been guided by the perspective of interpretivist symbolic interactionism, while its analytical approaches have been geared towards grounded theory (Crotty 1998). The methodology of this study follows ethnographic traditions as well, adapted to the needs of the research as well as to ethical considerations, as will be explained in the methods section.

Within the emic and etic dichotomy, this theoretical perspective is considered inherently emic. According to the emic approach, knowledge comes from the participant rather than from the researcher, following a bottom-up approach (Crotty

1998; O'Reilly & Kiyimba 2015). Furthermore, as a qualitative study, in terms of the nomothetic/idiographic dichotomy, this research is idiographic, as it involves the examination of specific cases in great depth, rather than looking for universal rules which would apply to the whole world (O'Reilly & Kiyimba 2015).

Due to the openness of the interpretivist tradition, resulting in a range of different approaches under the same umbrella term, one needs to be clear about the approach followed in each research project. A key issue requiring clarification is the role of theory. According to Ormston et al. (2014, p. 22), there is a balance to be sought between the use of induction and deduction, as well as between relying on previous theoretical knowledge as opposed to the participants' views. In agreement to the authors' recommendations, this study began with an exploration of the literature, in order to reach a sufficient understanding of the fields of social marketing and gamification, and to identify potential gaps. The output of this initial process, was the development of the Research Questions based on the notion of value co-creation, in accordance to the theory of the Service-Dominant Logic of marketing (e.g. Vargo & Lusch 2004).

The Research Questions, however, were framed in a manner which would allow a high level of flexibility and offer ample room for the participants to bring forward their own views and experiences (Ormston et al. 2014). During data collection and parallel initial, analytical note-taking, the focus was to understand the participants and the meaning of their words in relation to their contexts, as deeply and holistically as possible, leaving the theory aside temporarily. Toward the analytical stage, theory came into play again. Codes were linked to theories, additional concepts drawn from the literature were introduced, to help explain the emerging insights and develop conceptually founded arguments. In summary, initially there was use of theory, during the main process of research collection and parallel analysis the theory was left aside for some time, and in the analysis and representation phase, theories and concepts from the literature reappeared in the study.

The above may appear to be a straightforward process. In reality, it involved returning from theory to data and vice versa multiple times, until the appropriate theoretical and

conceptual foundations were selected. The latter may be challenged by fellow researchers, and for well understood reasons. They constituted, however, decisions based on a meticulous effort in the given time and with my given knowledge, as well as pre-existing constructions, attributed to my age, gender, education, values, native language, and political, historical and cultural background (Guba & Lincoln 1994). The search for theories ended when the final sections of the analysis were edited for the last time, leaving of course many open questions and doubts in regard to the final choices. However, as Kuhn explained when discussing the notion of paradigm, “...*a theory must seem better than its competitors, but it need not, and in fact never does, explain all the facts with which it can be confronted*” (Kuhn 2012, p. 18). The same idea applies to the interpretations in this study and their links to theoretical explanations; among all the possible interpretations, the chosen approach was selected on the basis of its capacity to explain the truth in the best possible manner.

4.2.4 Methodology

The choice of ontological and epistemological positions as well as the specification of a suitable theoretical framework for the study, are reflected in the response given to the “*methodological question*”, which is phrased as follows: “*how can the inquirer (would-be knower) go about finding out whatever he or she believes can be known?*” (Guba & Lincoln 1994, p. 108). The authors emphasised that any such discussion “*cannot be reduced to a question of methods; methods must be fitted to a predetermined methodology*” (ibid.). Therefore, before one outlines the design and implementation of methods, the underlying methodological approach is required to be clarified. In this study, the methodology is a combination of netnography and thematic analysis.

Netnography emerged in the 1990’s as an innovative method, which would transfer traditional forms of ethnography into the online world, enabling researchers to “*investigate the consumer behaviour of cultures and communities present on the Internet*” (Kozinets 1998, p. 366). Netnographers began with the investigation of mainly online forums and blogs, while the methodology began to gain popularity and has now developed significantly, by involving social media as data collection sites, as

well as by embracing a variety of methods and types of data (Kozinets 2015). O'Reilly and Kiyimba discussed the variability of ethnographic studies, in terms of epistemological positions, theoretical frameworks and choices of methods. They suggested that *“One of the unifying features of ethnographers is a supposition that the authenticity of the knowledge gained through the research process is enhanced by using methods which favour immersion in the field”* (O'Reilly & Kiyimba 2015, p. 71). The same is true for netnography; it is a flexible methodology, which can be linked to various philosophical positions and choices of methods. The main idea is that it seeks to develop an understanding of a specific field through a form of immersion. The authors also explained that ethnography may be combined with other methodological approaches and a researcher needs to clarify this as well.

In this study, a thematic analysis was deployed with the purpose of interpreting and presenting the data, which were collected through netnographic methods. *“Thematic analysis is a method for identifying, analysing and reporting patterns (themes) within data”* (Braun & Clarke 2006, p. 79). It allows the researcher to organise and describe the material *“in (rich) detail”* (ibid., p. 79). At many occasions, however, thematic analysis goes beyond the descriptive level and *“interprets various aspects of the research topics”* (ibid., p. 79), a logic which has been followed in this research as well, as will be explained later in this and the following chapters. Following a thorough, iterative coding procedure, themes emerged which were not mutually exclusive but rather strongly linked to each other. As Pollio and Ursiak explained *“themes are dynamic”* and *“they are not seen as independent, but as interrelated-as patterns”* (2011, p. 280). As is the case in netnography, thematic analysis is *“not wedded to any pre-existing theoretical framework”* (ibid., p. 81), and its main advantage is flexibility in implementation, as well as in its underpinning epistemological and theoretical frameworks (Braun & Clarke 2006).

4.2.5 Self-understanding and axiology

As Kozinets (2015) suggests, before one begins the process of data collection and analysis, there should be a preceding stage of self-understanding. With a view to ensure reflexivity (4.6), it is considered necessary for a researcher to understand how

their own life and core values are adding to the already significant challenges of research; a baggage of experiences, thoughts, emotions, presuppositions, judgements and expectations, which should be consciously understood rather than hidden in the back of one's mind. *"It leads to self-examination of our own prior beliefs, theories, models and metaphors that help us to systematically gain an ongoing reflexivity about our research"* (Kozinets 2015, p. 110). The author linked self-understanding with reflexivity, which is a fundamental aspect of research quality, as explained in section 4.6.

There is considered to be a positive side to confessing the existence of such baggage. Kozinets supported that *"an awareness of our pre-understandings is empowering, it enables the research to be consciously created and the researcher to be creative and expansive"* (2015, p. 110). Besides, as Loch and Black (2016) pointed out, in our efforts to compartmentalise our lives from our written work, we may risk missing an important part of our understanding and connection with participants as people. The authors expressed the view that *"...we cannot do the work of research without being who we are"*, and discussed the importance of *"...our values, identities, histories, domesticities, and professional and personal experiences"* (p. 105) in making sense of the world around us. Following the above viewpoints, I consider my life experiences, as well as prior reading and knowledge of theories, examples and concepts, as not only an integral part in generating the study's outputs, but reasons for the initiation of the study itself.

Although a process of self-understanding can be broad and involve several aspects of one's life, the point of this section is to highlight only the ones, which could have evidently influenced the choice and course of the research. In terms of life experiences, it is important to mention that fitness has been a part of my life since childhood and, in the past, I have worked as a fitness professional. The above raise an issue of realising the challenges involved in people's efforts to begin to exercise for the first time for example, or to set difficult fitness goals, such as significant weight loss. On the other hand, I have never been a professional athlete, nor am I familiar with the efforts and sacrifices that the life of an athlete would involve. In order to address possible

important differences between the participants' fitness background and my own, I avoided making any assumptions, and instead asked them questions about the first period of time when they joined Fitocracy, as well as their fitness journey. This would help me empathise, understand them better, and bridge the gap between our different life experiences.

An additional parameter which could have influenced my interpretation of participants' responses, was my familiarity with social media. A potential digital divide between participants should be expected, both in terms of their familiarity with current technologies, as well as their possession or access to technological devices, which may host the online platforms under investigation. I addressed this issue in a similar manner; by minimising assumptions, and asking questions, particularly about the initial period after the participants' registration on the platform, with a view to identify possible difficulties they had faced while getting accustomed to the functions of the system, due to lack of prior experience with using social media. It appeared, however, that since I recruited people who were already active members of the platform, and often users of other systems as well, there was little evidence of any such challenges.

In terms of prior knowledge, as mentioned, the reading of literature relevant to the topic of the study was necessary in order to establish the details of the research purpose, clearly identify a problem, and formulate the Research Questions. Writing a literature review is in itself a type of predisposition in the form of theoretical lens. As Kozinets argues, "*inevitably, we enter our field site laden with 'theory goggles'. The key is to realize that we are wearing them and to try to guess how they are colouring our view. That realization, in many ways, is at the root of the scientific endeavour to see familiar things in an unfamiliar way*" (2015, p. 123).

Besides considering one's prior experiences and knowledge, a process of self-understanding should involve a consideration of one's core values. This would be a discussion of axiology, which refers to a set of beliefs around ethics and aesthetics (O'Reilly & Kiyimba 2015; Hart 1971). Two core values have influenced the study. The first was the intention to 'do no harm'. Kozinets discussed the idea of doing no harm in online environments, which is why issues of privacy, anonymity,

confidentiality and protection from harm must be addressed in every study, as shown in the next section.

The second ethical value is about striving to ‘do good when possible’. The latter became evident in a number of ways. Firstly, I prepared to help participants who mentioned suffering from mental health issues by directing them to relevant sites, as instructed by the research ethics committee. Moreover, after the interviews, I offered to reciprocate for the help I had received with the study, if the participants ever needed my help in the future. Furthermore, the study itself, with its small contribution to knowledge, is guided by the principle of doing good when possible, as is my genuine interest in social marketing research and practice. In addition, from my point of view, an effort to improve health and well-being is a life priority, while spreading the word in any means and to the best of my abilities is a personal vision. This may mean that I was positively predisposed towards gamified platforms created by people with a similar vision. Finally, Kozinets (2015) explained that the role of Netnography is to help represent communities online, treating them as groups of individuals rather than numbers to make profit upon. The author suggested that we should protect people’s needs by representing them, and by letting their voices be heard with ethical rather than exploitative purposes. The perspective of social marketing is ideal as it serves social purposes.

4.2.6 Research ethics

In practical terms, the underpinning axiology is expressed in the form of ethical decisions in the design and conduct of a study. Prior to any data collection, the methods of this study were approved by the GUEP (General University Ethics Panel), which is the research ethics committee of the University of Stirling. The process of obtaining approval took a total of four months. The GUEP meets on a monthly basis, and once the original application was processed recommendations for changes and further clarifications came back as feedback. After making those adjustments, a second application was submitted, with minor clarifications requested this time. The third time, the proposal managed to meet the criteria of the committee and was allowed to proceed with the main body of the study. Following the axiological positions discussed

above, as well as the restrictions put forward by the committee, the following ethical aspects were addressed:

Anonymity

One of the first aspects of the study, which was explained to participants, was the principle of anonymity. This was ensured through changing people's nicknames on the platform and giving them new identities, taken from online lists of male and female names. The assigned names have been used to present quotes from group discussions and interviews with participants throughout the analysis chapters. Considering that the discussions in the groups are not searchable through any search engine, while the interview transcriptions were stored safely in my personal, password protected devices, the level of protection of participants' identities is considerably high. Besides, a large number of participants never revealed their real names, and I only knew their Fitocracy nicknames.

Privacy

People's perceptions of privacy differ across cultures and online platforms. Even in public forums, there are people who perceive their public discussions to be relatively private, as they are mainly visible to their peers in the online community, and it is not expected by them to be studied by an external observer. Appreciating and embracing this fact was important in this study. Furthermore, considering the difficulties, and the time take to negotiate with the ethics committee the terms of collecting data from private groups, it was decided that no archived data would be downloaded from public, naturally occurring discussions. Data were only collected in private, individual or group discussions, after the participant had been fully informed about the study. Informed consent would be sought at the end of each group discussion or individual interview (see Appendix for consent form).

Confidentiality

All data collected were confidential and participants were informed that their responses would be viewed only by academics closely involved in the research project. The data

were stored in my office computer, using the University's encryption system. For convenience, data in text form were copied to my personal laptop for analysis, which was password-protected. Data stored in both devices were anonymized and did not reveal any of the participant's personal information. Printed copies of the data which were necessary for the 'pen and paper' part of the analysis, were destroyed.

Protection of participants from harm

As Markham and Buchanan explained, "*due to the complexity of Internet contexts, harm may not be immediately visible, but may emerge at any point in the research process*" (2015, p. 10). However, there are certain steps one can take to minimize the likelihood of causing harm to participants. First and foremost, ensuring anonymity, respect of privacy, and confidentiality of data, are parameters that protect participants from being exposed to people other than the researcher, and their data being used for purposes outside of academic research. Furthermore, the study was conducted with careful consideration of the fine balances of the online community. Minimum disruption to people's discussion was caused, while there was no pressure for participants to answer any of the questions. The interviews were intended to be ideally enjoyable, but definitely not stressful in any way to the interviewees. Finally, when mental health issues were mentioned, I was prepared to direct people to seek for help in certain institutions (<http://www.nhs.uk/conditions/stress-anxiety-depression/pages/mental-health-helplines.aspx>), and also encouraged them to mention any time they wished to stop the discussion or skip a question which would make them feel uncomfortable.

4.3 Methods

4.3.1 Choice of site

Once the purposes of the research had been decided upon, leading to the formulation of the Research Questions, the next step was the choice of a suitable site for data collection. The starting phase of the "*data quest*" (Kozinets 2015, p. 161) is a process which runs smoothly in netnography, due to the abundance of easily accessible, efficient web search engines. In an exploration through websites, academic and non-

academic publications, blog posts and related material, in search for platforms with a potential for inclusion in the study, Fitocracy quickly appeared prominent.

Fitocracy is a fitness tracking system, mainly based on self-reporting, but including integration with tracking apps such as RunKeeper, which record live data through wearable devices. It largely relies on the former, as the users upload their exercises, sets repetitions, times and levels of difficulty, such as weight lifted, inclination climbed, and intensity of a session. It is also a gamified platform, including elements such as levels, points, badges, achievements, quests, duels and group challenges, which aim to encourage and reward users for exercising, uploading their workouts and sharing their progress with their peers on the platform. The platform works as a social networking site where a user can create a profile, which is visible to all other users, and can join groups of special interest, follow other users in order to see updates on their posts and workouts, and be followed back by them. It therefore hosts a form of online community. The system is provided via a website, as well as a mobile app which has an IOS and an android version as well.

It has been chosen primarily on the basis of its relevance to the topic of the study, which is one of the netnographic criteria for site selection and pertains to the extent to which sites “*relate to your research focus and question(s)*” (Kozinets 2015, p. 168). In the literature on gamification, Fitocracy was one of the first examples to draw the attention of academics. Werbach and Hunter presented it as “*a gamified website that tackles one of the hardest motivational challenges anywhere: getting people to exercise*” (2012, p. 51). The authors described Fitocracy as follows: “*Using various features normally found in videogames – things like levels, quests, badges and points – Talens and Wang set about finding ways to motivate people to get up off their lounge chairs and into the gym.*” (p. 52). Walz and Deterding later presented Fitocracy as one of the “*innumerable applications*” which “*nowadays combine self-tracking with goal setting and virtual achievements...for individual fitness*” (2014, p. 4). Hamari and Koivisto brought Fitocracy as an example of “*applications for fitness*” which aim “*to motivate people by restructuring relatively long-term goals by providing the users with short-term goals, activities, rewards and social support*” (2015, p. 333).

Besides the fact that Fitocracy is relevant to gamification, as well as behaviour related to physical activity, two additional criteria taken into consideration for the selection of Fitocracy were the fact that it was “*active*” and “*interactive*”. This means that the site had “*recent and regular communications*” and “*a flow of communications between participants*” (Kozinets 2015, p. 168). Since its creation in 2011, Fitocracy seemed to attract a large number of users. As Werbach and Hunter observed, “*Fitocracy must be doing something right: the site went from 1000 users to 200.000 in the space of a year...*” (2012, p. 53). In more realistic terms, one can estimate the members which not only have a profile, but have actually been recently active on the platform during the last 90 days, through the leader board which can be found on the website. According to this rationale, in the time of the study, the currently active members were approximately 16.000 (Fitocracy 2017).

In terms of the system’s interactivity, Khaled brought the example of Fitocracy in an exploration of gamification design elements, emphasising the strong community aspect of the system. “*Fitocracy, for example, allows players to “follow” each other, in the style of Twitter. Importantly, it rewards achievements related to community participation, including “Social Butterfly”, for posting one hundred comments, and “Feeling the Love”, for receiving one hundred “props”, or acknowledgements for fitness activities*” (Khaled 2014, p. 309). Hamari and Koivisto’s study examined the role of social influence in the system and pointed out that “*the social factors are an important antecedent for sustained behaviour and continued use intentions of motivational technologies*” (2015, p. 342). The authors recommended designing such systems in a manner which “*enables creation and strengthening of the community*” (p. 342), further highlighting the importance of the interactive aspect of Fitocracy.

In terms of “*heterogeneity*” (Kozinets 2015, p. 169), at a first glance the Fitocracy community appeared quite broad, as it hosted members of various ages and its core concept and design did not appear to be age- or gender-specific. Although a first glance did not guarantee heterogeneity, the fact that the platform facilitated tracking of all types of workouts, from shovelling snow and house work, to powerlifting, rock climbing and yoga, implied that it provided a heterogeneity of interests, a characteristic

which could logically be expected to attract a range of users with different backgrounds. Finally, when it comes to the “*experiential*” capacity of the site, defined as the extent to which it is “*offering you, as a user of the site, as the netnographer, a particular kind of experience*” (Kozinets 2015, p. 169), Fitocracy provided me with the ability to participate, create a profile, and explore the platform for a long period of time before I could make the claim that I had used and understood well almost all of its features.

4.3.2 Recruitment of participants and sampling approach

Upon obtaining permission from the research ethics committee and from the community manager of Fitocracy, registration on the platform took place in the beginning of February 2017. From the first day, I identified myself as a researcher on my personal profile description, which was publicly visible to all members. In the same space, I uploaded a clear picture of myself, providing a brief description of the study, and I encouraged interested members to contact me, by sharing an e-mail address specifically created for the study. This was the first step in developing trust and ensuring transparency and honesty to the whole Fitocracy community, including users and providers. I intended to create a feeling of safety among potential participants, by revealing my true identity, while the brief description of the study raised curiosity and initiated discussions with members, some of whom later volunteered to become participants.

Since the registration, I began to follow a large number of members which I found through visiting groups initially, and later through following people’s followers. Many members followed me back, leaving messages on my profile, where they were welcoming and thanking me for following them. Via a public post as well as individual public and private messages, I explained to Fitocracy members that I was doing a study for my PhD, but they could consider me as a normal member, as I was not recording any of their posts or any of our conversations, without them being aware of it. I clarified that they would soon be informed how they could participate and when data would be collected, which would be upon their informed decision and consent. At several occasions, I thanked the community for their warm welcome and explained

that, for the time being, I was only taking notes from my own experience in exploring the platform.

Recruiting participants started approximately one month after the registration on the platform. It took two different forms. Firstly, on the 27th February, I made a public post on my profile, visible to all members who had followed me back, as well as any member who would visit my public profile page. This post was an invitation for participants, in which I gave them the option to join a private group, or arrange to do an interview, or both. Interviews could be arranged through several media, Skype calls, chat, or e-mail, based on what was the most convenient and comfortable to each participant. The invitation was repeated twice through data collection, although the last two times I only invited interview participants. As a number of people responded with comments which would be visible on my profile, I later deleted these posts to ensure anonymity of the participants. Secondly, I contacted members via private messages, provided that they were paying members and had the option of private messaging. Four times, I was contacted on my e-mail by users who were keen to help with the study but were non-paying members. Fortunately, my intention not to cause any disturbance to the members was successful. The response was overall positive, and no members expressed any distress towards the study or the messages and interactions we engaged in as part of the recruitment process.

The study used a nonprobability sample, which implies that it followed “*a sampling procedure that does not give every element in the target population a known and nonzero chance of being selected*” (Daniel 2012, p. 258). More specifically, the process falls under the category of availability informant sampling, which refers to a “*nonprobability sampling procedure in which elements are selected from the target population on the basis of availability, convenience of the researcher, and/or their self-selection*” (Daniel 2012, p. 254). It is an availability sample based on the fact that every Fitocracy member who expressed the interest to be involved in the study after the researcher’s invitation, was recruited as a participant. As expected, there were a number of cancellations during recruitment.

Besides the aforementioned categorisation, the sampling approach was a form of “*web-based sampling*”, which refers to “*a set of sampling procedures that utilize email addresses, web site visits, and recruited users of the Internet as sampling units*” (Daniel 2012, p. 189). The term is linked to two aspects of the sampling and recruitment process. Firstly, the decision to recruit participants from Fitocracy, which is an online platform. Secondly, the use of Internet-based communications to contact, recruit participants and request for their informed consent.

Web-based sampling has a number of advantages and disadvantages, as Daniel (2012) explained. This sampling approach combined the benefit of time effectiveness, as it provided quick access to a large number of potential participants, with a relatively low cost. Being able to contact other users via private messages on the Fitocracy platform involved a monthly payment of \$4.99, which would change my status from a non-paying to a paying member, called a ‘Fitocracy Hero’, who is granted access to the private messaging feature. An advantage of this type of sampling, which could, however, add to the complexity of the findings, is the absence of geographical boundaries. With an active paying or non-paying Fitocracy membership as the only prerequisite, participants could come from any part of the world, as long as they had Internet access.

In the first phase, 31 Fitocracy members offered to participate, and in the second phase 13 members. The study involved a total of 44 participants, 14 of whom were female and 30 male, while 9 were non-paying members and 35 were paying members, referred to as “Fitocracy heroes”. 10 people did not reveal their location, while 17 mentioned that they came from the US, 4 from the UK, 2 from Canada, 2 from Germany, 1 from Sweden, and 1 from Australia. 17 people participated only in groups, 23 only in individual interviews, and 4 participated initially in the groups and later in individual interviews as well. A variety of media were used to accommodate participants’ preferences, resulting in 3 interviews being conducted by e-mail, 3 through Fitocracy’s private messaging feature, 1 via WhatsApp chat, 4 through Messenger chat, 4 through a Messenger call, 2 through Messenger video call, 5 through Skype call, and 5 through Skype video call. The groups were hosted on the Fitocracy platform using the feature

which permits the creation of a private group. Two groups were created, consisting of 9 and 12, a total of 21 participants.

The size of the above sample is relatively small, particularly when compared to quantitative studies in related fields, since the focus lies on the depth and representativeness of the analysis. According to Strauss and Corbin (1990), a core purpose of sampling in qualitative studies should be to achieve variation within categories and subsequent density of the data. *“Naturally, the more interviews, observations, and documents obtained, the more evidence will accumulate, the more variations will be found, and the greater density will be achieved”* (Strauss & Corbin 1990, p. 190). Following this guidance, data collection continued, within the timeframe of the project, based on feasibility of data management and analysis as well as maximum density within the themes which gradually emerged. I sought to fill every category with sufficient variety of examples, and ensured that similar examples were brought forward by different interviewees, in order to confirm my insights regarding which patterns can be claimed to be categories and which categories may belong to common broader themes. It therefore becomes apparent, as will be explained later in this chapter, that data collection and analysis were, to a great extent, simultaneous processes, while the choice of the sample size was made during data collection as well.

4.3.3 Data collection

The process of data collection commenced since the first day of registration on the Fitocracy platform. According to Kozinets, three types of netnographic data can be collected: *“archival data”*, *“elicited, or co-created”* data, and *“produced data”* (2015, p. 165). The study, due to high ethical sensitivity in regard to social media, did not use any naturally occurring *“archival data”*, which would refer to the interactions and public posts of Fitocracy members, appearing on their own, or other users’ profiles, or on public group pages. Despite the absence of *“archival data”*, the methods outlined are considered netnographic for two main reasons. Firstly, the participants were selected through an online site which was of interest to the study as a context in itself. The questions and topics of discussion, as well as the content of the notes were pertinent to this online platform and the community hosted within it. Secondly, the

procedures followed are recognised as netnographic methods. And although they resemble other observational, auto-ethnographic, or interview-based qualitative approaches, they are in essence primarily netnographic in nature and purpose.

Since the day of joining Fitocracy as a member, I began to socialise with the rest of the community. I followed a large number of users and I was followed back, I learned the unwritten rules of communication, the habit of cheering other users, and I responded to users' questions about my study, including the topic of the research, as well as issues around their privacy. It was clarified several times, that no posts or messages would be used as data, and any data involving Fitocracy members would be collected privately, only with the users' informed consent. I engaged in casual conversations in public posts or private messages, which were not recorded, but greatly assisted me during the process of getting to know people and building rapport with the community.

I therefore participated in posts and discussions, without downloading or using the above archived interactions as part of my research data. They played, however, an important role in generating "*elicited*" and "*produced data*" (p. 165). The former took two different forms: firstly, private discussion groups hosted on the Fitocracy platform; secondly, netnographic individual interviews using online media. "*Produced data*" appeared in the form of "*reflexive notes*" (p. 165), resulting in the development of a netnographic diary.

Produced data: Netnographic diary

Fieldnotes are inherited from classic ethnographic methods, as they have traditionally been a main component of the "*ethnographic record*" (Spradley 1979, p. 69). Kozinets placed fieldnotes in the category of "*produced data*", and explained that "*reflexive data are created by the netnographer in the role of author reflecting upon her experiences in the social field*" (2015, p. 165). Following the above conceptualisation, the purpose of the diary was to capture all the emerging impressions, thoughts, emotions and reflections, "*synchronously with interactive online social experiences*" (Kozinets 2015, p. 190). It also involved observations in the form of questions to be asked to participants of the study. For example, if I observed that there was an

interesting activity in certain groups, I would note that I should ask participants to talk about these groups in the interviews. My participation on the platform lasted 14 months in total, from February to September 2017, and from May to October 2018. This time involved consistent tracking of my own workouts, attempts to use all the features myself, setting goals, levelling up, observing my points and rewards and the thoughts or emotions generated by them. Interview fieldnotes were kept during my private interactions with the participants of the study, in order to better understand what was emphasised in the conversations, interesting emerging issues and contradictions, the language used, the humour and some common expressions.

In practice, the diary included a larger volume of notes initially, during the first two months, February and March 2017, while the first familiarisation and acculturation was taking place. Even the process of registering to create a profile, generated several pages of notes, including sketches. Some observations were pertinent to the function of the system alone, resulting in fieldnotes which were “*highly technical in nature*” (Kozinets 2015, p. 191), while many of the notes were formed as questions, because a large part of the platform was unfamiliar in the beginning. Curiosity was the main guide in this process since, as the author pointed out, “*because ethnography is emergent and inductive, we do not always know what to notice*” (2015, p. 190). As time passed, towards the end of the first phase, the notes related to the system itself became scarcer and more specific, and there were days when no such notes were kept. During the second, six-month phase, May to October 2018, system-related notes were again selective, and they involved answers to previously unanswered questions, some new reflections, as well as confirmation of past experiences from the first phase. In summary, I gradually became better-informed and hence more selective in keeping notes about my experience on the platform, while the energy and focus shifted towards collecting and interpreting interview data, keeping notes in the process.

Developing and documenting my understanding of Fitocracy, served three main purposes. Firstly, along with the first interviews and the two discussion groups, which came early in the data collection process, it helped me create a map of the field, describing the different spheres of interaction between Fitocracy members and

providers, which are presented in the next chapter. Secondly, the initial familiarisation contributed to the gradual improvement of the interviews as time passed. Initially, the questions were general and demonstrated a limited understanding of the platform. Later, they gradually became more refined, specific, and relevant to both the interviewees and the study. However, I maintained Spradley's attitude of constantly "*expressing cultural ignorance*" (Spradley 1979, p. 61) through the questions, as much as possible, in order to encourage interviewees to provide better explanations and richer responses. Finally, the accumulated knowledge documented in the netnographic diary, greatly assisted in the interpretation of the data as they brought an interpreter - researcher closer to the Fitocracy member's point of view. This enhanced my intuition in regard to the meaning of interviewees' responses, and therefore improved the interpretation, with all the admitted theoretical lenses and presuppositions, which accompanied the analytical process.

Elicited data I: Private discussion groups

After a period of approximately one month since the registration, two private discussion groups were formed on the Fitocracy platform, with participants willing to help with the study using this medium. The first was named Gamification_Netnography_1 and consisted of 10 members, and the second was named Gamification_Netnography_2 and had 13 members, including myself. Both ran for a short period of time from 27 February to 15 March, 2017. A private group constituted an online focus group generating "*elicited, or co-created*" (Kozinets 2015, p. 165) netnographic data. It was a focus group in the sense that it was a group interview with a "*nondirective style of interviewing*", in which "*the primary concern is to encourage a variety of viewpoints on the topic in focus for the group. The group moderator introduces the topics for discussion and facilitates the interchange*" (Brinkmann & Kvale 2015, p. 175).

The term "*elicited, or co-created*" is used by Kozinets (2015, p. 165) to refer to online discussions which are initiated by the researcher, instead of being naturally occurring. In this case, I was asking the questions and facilitating the interaction. As Brinkmann and Kvale explained, a focus group can be a "*lively collective interaction*", which

“may bring forth more spontaneous expressive and emotional views than in individual, often more cognitive, interviews” (2015, pp. 175-176). At several occasions, the discussion took a life of its own as the users found common ground in their responses, often complemented each other’s posts by adding more details, or in some cases spent time greeting each other and discussing how they recognised each other from their previous interactions on the platform. It is known that a group *“reduces the moderator’s control of the course of an interview”* (Brinkmann & Kvale 2015, p. 176). This was the purpose of using this approach in the first stages of the study, as I had little knowledge of the field and, although I introduced the topics of interest, my intention was to avoid imposing any pre-determined directions or limits to the discussion groups. Later, when better understanding and more certainty was developed on my part, individual interviews were considered more suitable. Considering how helpful and active these two groups of participants were, as well as their time zone differences and their various daily schedules, every day and night there was an ongoing discussion, requiring constant attention and careful monitoring.

This process generated, in combination with the initial notes in the netnographic diary, a valuable account of the ways in which the platform and the community functioned. Furthermore, it provided great guidance, acting as a frame of reference for the interviews that followed. It was strategically timed near the beginning of the exploratory, data collection process, as focus groups are considered to be *“well suited for exploratory studies in a new domain”* (Brinkmann & Kvale 2015, p. 175). As a relatively unexplored site, Fitocracy was presented by its users in these two groups clearly enough to enable me to begin the interviews immediately after, without feeling the same uncertainty towards the unknown as before.

Elicited data II: Semi-structured interviews

Perhaps the richest source of data were the interviews with recruited participants. Invited Fitocracy members who would be willing to do an interview, were asked whether they preferred e-mail, skype call, messenger or any other online medium. I offered them this flexibility, in an attempt to encourage introverted members to become participants, who would not feel comfortable to have a live conversation even

through the internet. I decided to be sensitive to this possibility, and at the same time accommodate their schedules, considering that a text-based interview, whether by e-mail or chat, would span over a longer period of time and fit around interviewees' schedules.

A semi-structured interview involves *“the use of some pre-formulated questions, but no strict adherence to them”* (Myers 2013, p. 121). The author explains that there is a level of unpredictability and ad hoc creativity in this type of interview, as *“new questions might emerge during the conversations”* (ibid.). Indeed, an interview guide was developed beforehand (see Appendix), which was followed during the interviews and pointed the discussion to meaningful directions, pertinent to the Research Questions. However, anything of interest mentioned by the participant, would be further explored through introducing new questions. The main disadvantage of this approach is that, considering the time limits of an interview for some participants, or their reduced willingness to keep talking, the full range of predetermined topics was not covered during all interviews. Considering the fact that all the interviewees were voluntarily participating, I sought to maintain a balance between respecting the interviewees' valuable time and energy, and covering as many sections of the interview guide as possible.

Semi-structured interviews are a popular approach to interviewing. According to Flick, *“this interest is linked to the expectation that the interviewed subjects' viewpoints are more likely to be expressed in an openly designed interview situation than in a standardized interview or a questionnaire”* (Flick 2009, p. 150). Overall, I kept the interviews friendly and open, while I encouraged the participants to share their thoughts and to change the subject or introduce their own subjects of interest, if they thought that would add more value or enjoyment to the conversation. To a great extent, I followed Spradley's approach to ethnographic interviews, which he perceived as *“friendly conversations”* (1979, p. 58), with the only difference being that there would be a stated research purpose and subsequent questions would be asked in order to serve that purpose.

4.4 Data analysis and presentation of findings

The analytical process overlapped with the phase of data collection to a large extent. While initial thoughts were still recent, it appeared as a natural course of action that analytical notes should be kept on all data as they were being collected. Only after the end of the data collection were all the ideas refined and finalised. The coding was initially data-driven, open coding in the exploratory stage when there was a high level of uncertainty as to what the study would encounter. However, as the process progressed, concept-driven codes began to be introduced, and more connections emerged between the findings of the study and extant research including theories and concepts.

Guided by the research methodology, the type of analysis was thematic, which is a broad category of analytical techniques. In this case, the analysis began by focusing on ‘what’ and ‘how’ questions, and continued with a search for the ‘why’ and a further ‘how’ behind the initial descriptive themes that emerged. This followed the rationale that “*thematic analysis can be a method that works both to reflect reality and to unpick or unravel the surface of ‘reality’*” (Braun & Clarke 2006, p. 81). This resulted in three levels of analysis. The first level involved mapping the field of Fitocracy. It was initially intended to be a simple description of the system and its features. During the first phase of exploration, it was revealed that an initial descriptive analysis was necessary to help explain the different spaces where value creation could be facilitated. In the second phase of the analysis, there was an evident descriptive component again, as the discussion inheres with processes that take place within the context of Fitocracy. There is already a certain level of depth, as the analysis attempted to dig deeper into the participants’ thoughts and emotions when engaging in these processes, as well as an explanation of whether these processes could constitute positive, or whether there was a risk of negative, value creation. In the third part of the analysis, a reader can see a greater depth as the study searches through the data, this time asking ‘why’ questions, attempting to understand the reasons and the mechanisms that drive the processes identified in the previous stage. The most holistic insights could perhaps be found in the third phase of the analysis. The latter discusses how users’ behaviours are

motivated and how they evaluate the identified processes, which may help explain why they continue or discontinue to engage in them.

During the beginning of data collection, the data were constantly monitored, the interviews were transcribed, stored and transferred to an NVivo project file for investigation. NVivo was used throughout the study, as a means of exploring through the data, comparing and developing ideas. However, a large part of the analysis took place with a pen and paper manner, as this added the emotional advantage of feeling closer to the data when processing them. The interview texts were printed multiple times and, after several attempts, sections of the data were cut and categorised in themed boxes in order to be compared to each other. After the coding was refined, the data were coded in a clear way using NVivo to ensure that they would be presented in an orderly and legible manner, for myself to return to and consult while writing the analysis chapters, or to be able to easily make changes if necessary. NVivo proved to be a valuable tool, serving the purposes of the study without being allowed to perform the analysis on my behalf.

4.5 Clarifying topics that the research does not address

As there are extensive sections throughout the thesis, in regard to what the research is about, this is considered an ideal time and place to distinguish the latter from what the study is not addressing. It is therefore important to make the following clarifications:

- The system of Fitocracy is being looked at through the eyes of a non-designer researcher, with a social marketing, and a business-oriented background, who does not have any substantial knowledge or practical experience of programming, web design, web development, user experience design or related areas. In an effort to understand gamification as a phenomenon, the study inevitably draws evidence from fields under the umbrella of Human Computer Interaction. And for us to understand Fitocracy as a context, a description of the functions of the system has been provided. It is however beyond the scope of the study to provide detailed insights into technical, usability matters. This task is in the hands of the relevant Human Computer Interaction fields. Instead, my decision was to focus on the lessons which can be learned by a social

marketer, from an existing fitness community, hosted in a gamified social networking site. Among other aspects of the platform, the value creation occurring due to the gameful design of the system was explored and analysed. However, due to a social marketing perspective as well as my limited web development knowledge, there has been a certain limit to the scope of this analytical part.

- The focus of the study does not include coaching programmes advertised on Fitocracy. I consider these as a separate sub-service of the Fitocracy company which again belong to a different area of literature, concerned with online fitness coaching. I do however, include in the findings participants' responses on how they benefited from the coaching programmes what they have brought back to the community and its value creation. Since the two services belong to the same company and the coaching programmes are advertised on the social networking platform as well, I believe they should be acknowledged as a source of value, but the analysis will stop there and not go any further to the processes inside these programmes.

- In terms of theory used in the study, both its theoretical foundations, as well as the theories and concepts brought forward within the analysis, are drawn from multiple disciplines, such as psychology, marketing, Human Computer Interaction, social psychology. This has been done on purpose as well, because as explained previously, both social marketing and gamification are embracing theoretical perspectives, ideas and empirical evidence from a variety of different fields. It should be clarified that there is no specific, strictly predetermined conceptual framework which would limit the analysis of the data. The choices were a result of a dialogue between the data and the theory and the effort to provide the most suitable and meaningful interpretation, relevant to both the Research Questions and the interviewees.

- As will become clear in the next chapter, there is a large part of the process of potential value creation taking place behind the scenes, at the provider's sphere, inside the company and its group of people sharing various different roles. This is a part on which this study does not focus either. The reason is that the protagonists of the study are customers and the focus is concentrated on how they make sense of their experience around the platform. Inspired and guided by the Service-Dominant Logic of

marketing, the study treats providers as creators of potential value, and facilitators of value co-creation; it is the customers' engagement with the platform, however, which makes value co-creation materialise (Vargo & Lusch 2004; Grönroos & Voima 2013). This approach allowed a number of fruitful insights to emerge which may be of interest to managers of such companies as well as social marketers aspiring to follow this example. It means that one can in fact learn from customers about the backstage of the provider sphere. However, interviews have not involved founders, managers, coaches, developers, moderators or any stakeholders who were not part of the customers' side. This may open the door to future research on the latter unexplored areas.

4.6 Ensuring research quality

According to a number of authors, the criteria of assessing qualitative research are diverse and do not constitute a universally accepted checklist (Denzin 2011; Barbour 2001; O'Reilly & Kiyimba 2015). However, for the sake of justification of decisions, as well as ensuring that the study does comply with widely accepted qualitative research standards, the principles recommended by O'Reilly and Kiyimba (2015, p. 40) have been followed. It should be clear, however, that one needs to see beyond them and assess the quality of a study holistically.

Firstly, the study followed the principle of "*transparency*" which translates as "*auditability, trustworthiness, rigour, credibility*" (ibid., p. 40). For the purpose of transparency, all methods followed have been presented in the thesis. Data were collected precisely as described here, while there are records kept of all processes including the netnographic diary and the NVivo project files. It would be essential, however, for someone to discuss with myself in order to clearly understand how the processes were undertaken. It would be a challenging task for an external observer to understand every detail of the study without the presence of the researcher. With the latter limitation considered, there is a high level of transparency when it comes to the research process.

Secondly, the study was guided by the principle of "*reflexivity*", by which one should "*be aware of the constructed nature of findings and impact of the researcher*" (ibid.,

p. 40). This is evident in the process of self-understanding preceding data collection (4.2.5), while it is implicit throughout the analysis, as an underpinning mindset. The relationship between the researcher as a person and the research process has been presented in this thesis both as a strength as well as a limitation of the study.

Thirdly, “*transferability*” was sought, which refers to the “*degree of relating to other contexts*” (ibid., p. 40) but also the construct which is being used to replace “*generalisability*” which is a criterion of assessment in quantitative research (Lewis et al. 2014, p. 348). Because of the specific and unique insights made through qualitative studies, claims of generalisability to a wider population can be largely problematic. The thoroughness of the analysis may however result in findings which can be transferred to “*the wider population from which the sample is drawn*” (ibid., p. 348), as well as potentially “*other populations, or settings, services or interventions outside of the original study design*” (ibid., p. 348). Two claims can hence be made. Firstly, the claim of “*representational generalisation*”, meaning that the findings can apply to “*the parent population from which the sample is drawn*” (ibid., p. 348), the paying and non-paying members of the Fitocracy platform. Secondly, “*inferential generalisation*” (ibid., p. 349) means that the findings of the study may be transferred with necessary context- and purpose-related adaptations, to future social marketing interventions attempting to use a gamified fitness social networking system as a component. Insights may provide again not a checklist or a definite set of answers to all problems but certainly a mindset, a number of expected issues and possible ways to address them, as well as a set of value creation processes to be facilitated and problem-solving ideas based on the Fitocracy experience.

Furthermore, the study is following the principle of “*ethicality*”, which refers to “*risk and benefit assessment, significance of contribution, worthiness of topic*” (O’Reilly & Kiyimba 2015, p. 40). The main risk and benefit comparison was twofold. Firstly, the risk of exposing my own identity was compared against the benefit of building rapport with the community and gaining trust. The balance was directed towards the latter. The second aspect of this comparison was the risk of causing harm or disruption to the members of the Fitocracy community. As explained in the ethics section, this risk was

not underestimated but fully acknowledged, while every possible measure was taken in order to minimise it. The “*significance of contribution*” as well as the “*worthiness of topic*” (ibid.) were thoroughly examined in the literature review and the conclusion of the study. However, the contribution of every research project adds one piece to a large puzzle, and should not be considered as a set of all-encompassing rules.

Finally, the principle of “*integrity*” has been of utmost importance in the study. This refers to “*epistemological congruence*”, which is reflected in the similarity between the stated underpinning philosophy and the approach to conducting the study, “*authenticity*” which is the way in which it is proved that the thesis was my original work, “*sampling adequacy*” which has been explained above as a process of selection of the number of participants taking place until the end of data collection. (O’Reilly & Kiyimba 2015, p. 40).

4.7 Limitations

Despite a researcher’s best efforts to ensure research quality and contribute to current knowledge, limitations and challenges are expected in any research project, particularly during one’s early stages of academic experience. There is a list of limitations and challenges, outlined below, which is not exhaustive, as they do not capture the daily challenges of a PhD project which involves continuous errors through which learning occurs. The list is however analytical enough for the reader to understand the complexity of the project and suspect the specifics of those challenges.

A first limitation is the lack of prior extensive research experience. Being at an early academic stage, I have yet to gather relevant experience to enrich my depth of perception and speed of planning and execution of the fundamental tasks involved in a research project. This problem has been addressed by reading relevant books about research methodology, studies and how they encountered their own limitations, and from asking questions and discussing with colleagues, supervisors and more experienced researchers. Finally, reading other PhD theses gave the researcher an indication of the expected level of depth and content at this level.

An additional limitation was that the field was not entirely new to me. Although there might not be any relevant experience of a fitness related gamified system, there were previous experiences which made it difficult for me to empathise with users who did not have them. This problem was twofold, as explained in the introspection section. On the one hand, I belong to a generation and a culture of people who use social media frequently to communicate with friends, family and colleagues. It would therefore be difficult to avoid a form of predisposition, which might lead to a relative underestimation of other users' difficulties when first accessing and familiarizing themselves with Fitocracy, or perhaps their various assumptions and beliefs around privacy online. On the other hand, my own background involves various different types of physical activity over the years and could interfere with my interpretations in a similar manner. To address this problem, I asked relevant questions and kept the above issues into consideration at all times.

As in every qualitative research project, especially when it is a netnographic study of a specific forum, blog or social networking site, there is the issue of a low generalisability. This can be attributed on the one hand to the limited sample, which is confined within the borders of the system. On the other hand it is caused by the particular characteristics of each system as a context of research which cannot be easily found elsewhere. Gamification is a very broad and diverse area, which means that choosing to explore this specific platform, although it is considered to be the most suitable to draw valuable insights, it is also a form of compromise, and may mean that other insights possibly drawn from other platforms will be underexplored here. This issue can only be addressed with further research in the area and exploration of other platforms. It can also be served by developing new platforms and experimenting with different target groups and different characteristics of the gamified system.

As Skågeby (2011) explained, issues of heterogeneity within the recruited sample are a common issue in netnography. This is usually not a result of a researcher's lack of rigour or incorrect practice, but rather a normal occurrence, due to the presence of introverted users which do not participate often in the platform's interactions, therefore perhaps not seen by the researcher or also not willing to participate in the study due to

introversion. This may result in certain groups of users being underrepresented. In order to minimize this problem, users who chose to participate were also asked to talk about their relationships with their peers in the platform, and valuable information was gained by the most experienced participants who were able to discuss about their activity in private groups as well as other members who were not engaging with the platform often, for various reasons. Asking participants about their fellow Fitocracy members bears the risk of getting their own perspective of the situation, which is expected to carry their own assumptions.

4.8 Conclusion

Following the paradigm of relativist ontology, constructionist epistemology and interpretivist, symbolic interactionist theoretical framework, this study follows a netnographic methodology, with its subsequent methods being adapted to ethical rules around privacy, anonymity and confidentiality, and resulting in the data collection instruments consisting of a netnographic diary, two private research groups, and multiple text-based and video-call interviews. The analysis follows three levels of depth: the first is about mapping the field, understanding how Fitocracy works and where the processes that will be identified later are situated; the second part outlines these processes, following a thematic analysis of positive and negative value creation; the third and final part of the analysis attempts to respond to further questions, exploring SDT to shed light on the sources of motivation which explain customers' engagement, and identifying the ways in which participants perceive the value created through engagement. The methodological decisions explained in this chapter will be guiding the data collection and analysis in the following chapters. At the end, a broader picture will be drawn, explaining the contribution and main implications of the study.

5. DATA ANALYSIS I: MAPPING THE FIELD

5.1 Introduction

This chapter discusses the initial steps of developing an understanding of the participants' experience, which involved exploring, keeping notes, asking questions, and finally creating a map of the field of Fitocracy, in accordance to the research purposes. While documenting and analysing the system's main components, an important issue was raised; a simple website map would be neither sufficient nor relevant in presenting the complete picture of the spaces in which themes of value creation could emerge. The initial exploration indicated that a number of online and offline spaces of value creation could be identified, and illustrating them would be essential. To achieve this, I consulted the literature on the Service-Dominant Logic, and decided to adopt the spheres model by Grönroos and Voima (2013), which illustrates the areas of interaction between a service provider and a customer, and explains how value is facilitated, created and co-created within these. In an attempt to accommodate the differences between a service, as pictured in the authors' model, and a service hosted in a social networking site and app, as well as the particular characteristics of the Fitocracy environment, the model needed to be modified. The necessary adaptations followed the same principles as the original model, while some additional rules were created for this specific context.

5.2 The platform

When entering the site, it becomes clear that Fitocracy combines the features of a self-reporting, activity tracking system, with a social networking site as well as a gamified system. Participation begins with a free-of-charge registration process during which a username and a password, as well as a nickname visible to the community are created. The user has the option to connect through Facebook, Twitter, or by providing a valid e-mail address. A profile is then created, which shows the user's nickname, and may include a brief description, including tags such as #strength, #cardio, or anything that the user feels is representative of their personality and interests. On the profile one can see a user's current level, total points, number of followers, age, height and gender. By

clicking to expand the profile description, one can view the number of achievements, quests, workouts, challenges, props received, and number of groups which the user has joined. The badges awarded for achievements are also visible. It is also easy to distinguish whether the person is a paying or non-paying member, as there is a circle on the right side saying "*League of Fitocracy Heroes*" which has a bright blue colour for paying members (Fitocracy 2018).

The tracking system is organised by date; at each date a user can log multiple workouts, and an unlimited number of exercises for each workout. There are some recommended workouts which are provided for free. Every exercise can be found through a search box, or alphabetically, and by clicking on the exercise one can view instructions on how to perform it, and in many cases, there is a short video with a man or a woman performing the exercise. Exercises vary significantly and range from house work, to cycling, to more specialised bodybuilding exercises such as lateral raises. Tracking an exercise normally requires a minimum amount of detail, for example cycling distance and time, but a user has the option to add advanced data such as inclination of hill, as well as free written notes under each exercise in case the user wishes to share more details. When a workout is complete, the system calculates the points gathered, and the day's activity appears on the profile of the user and their follower's activity feed page (ibid.).

The users are members of a social network, which hosts an active online community. They can make online friends by following them and often be followed by them. Unlike other social media, a personal profile is publicly visible to any other member, whether they are a follower or not. The difference between followers and non-followers, is that a follower can see a user's updates, posts or uploaded workouts on their activity feed. On their profile, users have the option to share updates with the community in the form of posts, which can be text or images, or uploaded workouts. Users can leave text and image posts on each other's public profiles as well, while paying members are allowed to exchange private messages. On a public post or uploaded workout, users may prop, comment, share, or hide a comment, as well as report any comment that they consider offensive. Finally, public and private groups

exist, which are free to join and cover a broad variety of interests, from specific fitness topics or nutrition discussions to hobbies and love for animals. Groups are a common way for users to connect and find people to follow and interact with (ibid.).

Gamification is evident throughout the platform. Each exercise, depending on the level of effort, is evaluated by an algorithm and rewards the user with a certain amount of points. Each level requires a specific number of points to be reached, and passing a level is announced on a user's profile and appears on their followers' feeds pages. Quests and achievements are either combinations of exercises, which should be performed during one or more workouts, or accumulated social activity, such as a number of received props. Badges are awarded for all achievements and appear on the profile page. Levelling up and receiving rewards becomes increasingly hard as a user becomes more advanced. In addition, challenges are a social feature, which takes the form of a group competition with specific workout goals. The winners of each challenge appear on a leader board which is visible to the group that initiated the challenge. Duels are only for paying members and involve a one-to-one competition. Finally, a leader board exists which classifies all Fitocracy users based on total points acquired in a period of time, which may be the last 7, 30, or 90 days (ibid.).

Each user has access to a dashboard, where they can view their personal characteristics, adjust their settings, access the help pages, look at their achieved and available challenges and quests, or sign out of the platform. They can also invite friends from other social media and earn a Hero status when doing so. If they already have a Hero status, they can choose to change their title, which appears under their nickname on the profile, view their private messages, or change their Hero account on the dashboard as well. A paying membership, includes the added feature of private messaging, as well as the ability to save one's own or other users' workouts for future reference, and provides access to monthly reports of the progress of the user in their reported activities (ibid.).

For the most part, the app carries the same features as the website in a mobile friendly version, with a slightly different interface, which follows, however, very similar aesthetics. There is one additional feature on the website which is intended to protect

users when they are in work environments; it is called ‘Not Safe For Work’ (NSFW). When activated, NSFW hides pictures from the user’s feed which may be inappropriate, because for example they involve partial nudity as users share pictures of their body to show their progress in fitness and body composition. This way, the pictures do not appear on the screen of the user’s phone and do not become visible to work colleagues. In addition, the IOS app offers the option of tracking certain activities on the Pebble smartwatch and uploading them on the Fitocracy platform automatically. Both IOS and Android apps offer an integration with the RunKeeper app, allowing users to import data from it directly to Fitocracy (ibid.).

5.3 Understanding Fitocracy as a service

Fitocracy is considered to be a service, according to Lusch and Vargo’s definition, which transitioned from goods-dominant to a service-dominant conceptualisation. Therefore, a service is defined as “*the application of specialized competencies (knowledge and skills), through deeds, processes, and performances for the benefit of another entity or the entity itself*” (Lusch & Vargo 2006, p. 283). It is, in fact, a mutual creation of value in which both Fitocracy as a company and customers as members of Fitocracy are both applying their operand resources, their skills and knowledge and judgment and contributions, on the operand resource which is the system, which is also open to adaptation based on this interactive process. It will become apparent early in the analysis that indeed providers, through developing, maintaining and monitoring the system, as well as customers as users of it and members of the hosted community both act as resource integrators and beneficiaries. The above is a symmetrical definition, which works towards both directions, meaning that either the customer or the providers may be at times “*the entity itself*” or “*another entity.*”

As demonstrated in Chapter 4, Fitocracy has appeared in the multi-disciplinary literature of gamification, a fact that further supports its selection as an example of a gamified system for physical fitness. Huotari and Hamari (2012) defined gamification from a service marketing perspective. Their definition began by considering games as services, acknowledging the contribution of the service-dominant logic, and emphasising the protagonist role of the customer as a player in creating value:

“However, according to the service marketing theory, the value of a service is determined solely by customer’s subjective experience, as service providers can make only value propositions. What follows is that value of a game service, be it ‘pleasure’, ‘suspense’, ‘mastery’ or ‘gamefulness’, is always determined by the player’s individual perception.” (Huotari & Hamari 2012, p. 19). Later, Hamari and Koivisto (2013) considered Fitocracy as a gamified Social Networking Service (SNS) for fitness, with a strong social component. The literature therefore further confirms this study’s approach to Fitocracy as a service, justifies the reference to the service-dominant logic to support the analysis, and points to the direction of exploring the community.

5.4 Value-in-engagement

In the first part of the analysis as well as in the following chapters, value creation processes will be viewed as processes of emotional, cognitive and behavioural engagement (Brodie et al. 2013), while the value derived from them will be termed as ‘value-in-engagement’. The following paragraphs explain the reasons for not choosing existing SDL terms, ‘value-in-use’, ‘value-in-experience’, ‘value-in-behaviour’, and ‘value-in-context’, and outline the advantages of the proposed term ‘value-in-engagement’ as a tool for the analysis of Fitocracy and similar services.

As explored in Chapter 3, the notion of ‘value-in-use’ was proposed to replace Goods-Dominant approaches to marketing, and to highlight the crucial role of the customer in the value creation process (Vargo & Lusch 2004). It implied that before the user interacted with a service, value could not be claimed to exist as yet (ibid.). However, in the attempt to implement it on Fitocracy, the concept of ‘value-in-use’ appeared problematic. Firstly, value creation was found both within and outside of any process of use of the online service. For example, when a customer went outdoors for hillwalking, they created value which was linked to the system, as they would later upload the distance covered and the duration of the activity, but did not use the system at this stage. Secondly, the existence of an online and real-life community, although based on the use of social features of the provider’s system, moved beyond them, to the point that value was found in human interaction; a type of value which could no longer be fully encapsulated in the term ‘value-in-use’. On the other hand, the word

‘engagement’ in place of the word ‘use’ allows the analysis of value creation processes which are closely related to Fitocracy but do not involve interaction with the website or the app. For example, it could be said that customers engaged in physical activity, a value creation process which was initiated due to past and future interaction with the platform. In terms of human interaction, it could be said that customers ‘engaged’ in socialising (6.4) or in building and maintaining relationships online and in real life (6.5).

The term ‘value-in-experience’ or ‘experiential value’ (Holbrook 2006; Mathwick et al. 2001) might appear suitable as well, as it could potentially involve all value creation processes related to Fitocracy, whether these involved interacting with the gamified platform or not. However, ‘engagement’ implies a more substantial degree of participation from the part of the customer, which is preferable in this study considering its focus on the customers’ perspective. In addition, the word ‘experience’ may have phenomenological connotations, as well as the word ‘use’ (Vargo et al. 2008). Considering the theoretical perspective of symbolic interactionism underpinning this study, ‘engagement’ may be viewed as a process of active interpretation and interaction, which may involve interactions with people as well as with things (Blumer 1969), and may manifest as emotions, thoughts, and often actions (Brodie et al. 2013).

As explained in 3.2.1, social marketers have introduced the term ‘value-in-behaviour’ to describe the value creation processes which do not involve interaction with a service (Butler et al. 2016). In this study, physical activity would be the desired ‘behaviour’; thus, value derived from being physically active would be termed as ‘value-in-behaviour’. However, this study explores all value creation processes, which may mean that ‘value-in-behaviour’, although not conceptually problematic, gives a limited, partial view of the overall value creation related to Fitocracy. Therefore, in this analysis, customers will be considered to ‘engage’ in physical activity, and the value derived from this process will be seen as a form of ‘value-in-engagement’.

The opposite issue arises from an attempt to implement the concept of ‘value-in-context’ in this study. ‘Value-in-context’ was introduced as a more holistic perception

of ‘value-in-use’ (Vargo et al. 2008; Chandler & Vargo 2011), which recognised the interaction between service systems and the differences in the value of resources across time and space. According to the authors, each actor within a service system is capable of co-creating value according to their ability to access valuable resources in a particular time and place (Chandler & Vargo 2011). ‘Engagement’ once again appears more suitable for this analysis, as it offers a closer, more detailed, microscopic perspective of the value creation processes situated within one service environment, while the importance of the broader context is acknowledged, but not considered as the focus of the analysis.

It becomes apparent that, in contrast to the most commonly adopted term of ‘value-in-use’, the term ‘value-in-engagement’ is broader and may encompass processes of use as well. For example, it can be stated that customers engage in physical activity, or that they engage with the online community as well as with the features of the system. ‘Engagement’ is more dynamic, as it does not imply the existence of a static, non-changing object, which can be ‘used’ as it is. It implies that services can keep changing as customers engage with them continuously in *“a dynamic, iterative process of service relationships that cocreates value”* (Brodie et al. 2011, p. 258), and therefore allows room for fluidity and change. Furthermore, engagement is a term which is familiar to marketers (Brodie et al. 2011; Brodie et al. 2013), as well as gamification scholars (Deterding, Sicart et al. 2011; Leclercq et al. 2017). In addition, it has been linked to motivation and to the Self-Determination Theory as well (Deci & Ryan 2011; Reeve 2005; Rigby 2014), which greatly assists in building a theoretically and conceptually sound interpretation of the findings of this study.

In commercial marketing, the notion of engagement has been explored in the context of virtual brand communities, termed as ‘consumer engagement’. Brodie et al. (2013) reviewed the literature on brand communities and proposed a definition: *“Consumer engagement in a virtual brand community involves specific interactive experiences between consumers and the brand, and/or other members of the community. Consumer engagement is a context-dependent, psychological state characterised by fluctuating intensity levels that occur within dynamic, iterative engagement processes”* (Brodie et

al. 2013, p. 107). Using the term engagement allows a deeper exploration of value creation processes occurring within services, considering the view that “*consumer engagement is a multidimensional concept comprising cognitive, emotional, and/or behavioural dimensions*” (Brodie et al. 2013, p. 107). Analyzing thoughts, emotions as well as behaviours can increase the current understanding of gamified services, by looking beyond observed and/or reported behaviour. Therefore, the term ‘value-in-engagement’ was deployed in this study, and it is recommended for future studies on similar services as well.

As previously mentioned, engagement in gamified systems has been viewed as the behavioural expression of motivation (Rigby 2014). Adopting the conceptualisation which stems from the marketing literature and explained by Brodie et al. (2011; 2013), the analysis will address engagement as the cognitive, emotional and/or behavioural expression of motivation. As seen in Figure 5.1 and Table 5.1, the term ‘value-in-engagement’ will be deployed within all spheres of value creation, as analysed in the following sections of this chapter.

5.5 Creating a visual illustration of the Fitocracy service

After an initial description of the platform (5.2), it would be essential to present the field of the study in a visual form, to indicate where the participants’ engagement processes were taking place. Upon understanding the areas where engagement was situated, we could then consider them as loci of value creation, and situate the emergent themes and categories within the appropriate locus or loci. The search for a logical and relevant way of creating a visual representation of Fitocracy as a service and a value creation space, pointed to the direction of Grönroos and Voima’s (2013) model of value creation spheres, as presented in the literature review (3.2.2 and Table 3.3).

According to the authors’ rationale, a ‘sphere’ is an area in which one or more actors operate and engage in value creation processes related to the service under investigation, acting either independently from one another or collaboratively. The relative position of each sphere on the visual illustration, which may take the form of a

figure (ibid., p. 141) or a more analytical table (ibid., p. 143), indicates whether the interaction between provider and customer is direct or indirect, whether value is facilitated, created or co-created, and thus whether potential or real value emerges within that sphere.

In an effort to unravel the interactions and engagement processes which generated value on Fitocracy as a service, the spheres model constituted a helpful basis for the illustration of the roles and interactions taking place between different actors inside the system. However, certain adaptations needed to be made to the model, to help illustrate a gamified social networking platform such as Fitocracy. The reason was that the spheres as presented in the original model did not fully encapsulate the capabilities of a gamified service, which involved online as well as real-life engagement processes, additional actors such as other providers and non-customers, as well as customer-provider interactions outside of the main service, as will become more clear in the next sections.

5.6 Mapping the value creation spheres

The mapping process consisted of an analytical part, based on participants' accounts, a descriptive component, based on my field notes, and a literature component, based on non-academic literature. By bringing the above together, an analytical description of the field was developed, to serve as a foundation of the interpretation of participants' responses from experiencing it. The analysis of the participants' responses and the field notes followed certain rules, which were drawn and adapted from Grönroos and Voima's model of spheres (2013). Considering Fitocracy as a service, the rules of analysis were the following:

- The actors are divided into two groups, providers and customers, both participating in value creation processes.
- Providers are human beings working with Fitocracy as well as the system created by them and all its digital features. Therefore, the online system and app will also be referred to as 'provider' as it has been created and is being maintained and changed by human providers.

- Customers are human beings, which are either physically present in the interactions or through their online profiles on Fitocracy or other platforms.
- Following the model, co-creation of value exists where there is provider-customer interaction, while creation of value occurs when customers act individually or collectively without the provider's interference, although their activities are closely linked to the service and the provider.
- Value facilitation occurs when providers act without the customers' contribution, and create the conditions for possible value co-creation.
- Direct interaction has been considered any unaided interaction between provider (human or system) and customer.
- Indirect interaction occurs in two cases: firstly, where providers or consumers are invisible to the other party; secondly, when another provider mediates their interaction.
- The provider's line of visibility, stemming from the original model, signifies the border of the space where the provider can see and interact with the customer directly.
- The terms 'In Real Life' and 'online' have been deployed to describe real-life activities and activities mediated by digital, networked systems respectively.
- 'Engagement' as a broader term has replaced the word 'use' resulting in the proposition of the term 'value-in-engagement' as more suitable than 'value-in-use' for services that take the form of gamified social networking sites, such as Fitocracy.

As a result of applying those rules on the field of the study, four spheres were identified as illustrated in Figure 5.1; the provider sphere, the external joint sphere, the gamified system joint sphere, and the customer sphere. Figure 5.1 offers a first illustration of the engagement processes and interactions, analysed further in Table 5.1, and explained in detail in sections 5.7 to 5.10. In the provider sphere (5.7), the provider as a company operates independently to facilitate potential creation of value-in-engagement. On the other hand, in the customer sphere, customers create value-in-engagement independently of the main provider, individually, collectively, or with the

involvement of other actors, in real life or in online environments, as will be explained in 5.10. Both provider and customer spheres involve indirect interaction between Fitocracy as a provider and its customers, as both parties engage in processes related to the service, but are not aware of each other's activities. The gamified system joint sphere and the external joint sphere constitute the areas where customers and providers co-create value-in-engagement, through a combination of direct and indirect interaction. While the gamified system joint sphere refers to the main gamified platform hosted on a website and an app (5.9), the external joint sphere may be considered as an addition to the original model, as it illustrates customer-provider interactions which do not happen on the main platform of Fitocracy and may take place in real life or online platforms (5.8). The analysis that follows outlines the areas of engagement found within each of the value creation spheres, and identifies three additional groups of actors contributing to value creation; other providers, integrated provider, and non-customers. Table 5.1 presents the possible areas of engagement and the actors involved, as they emerged from the data analysis.

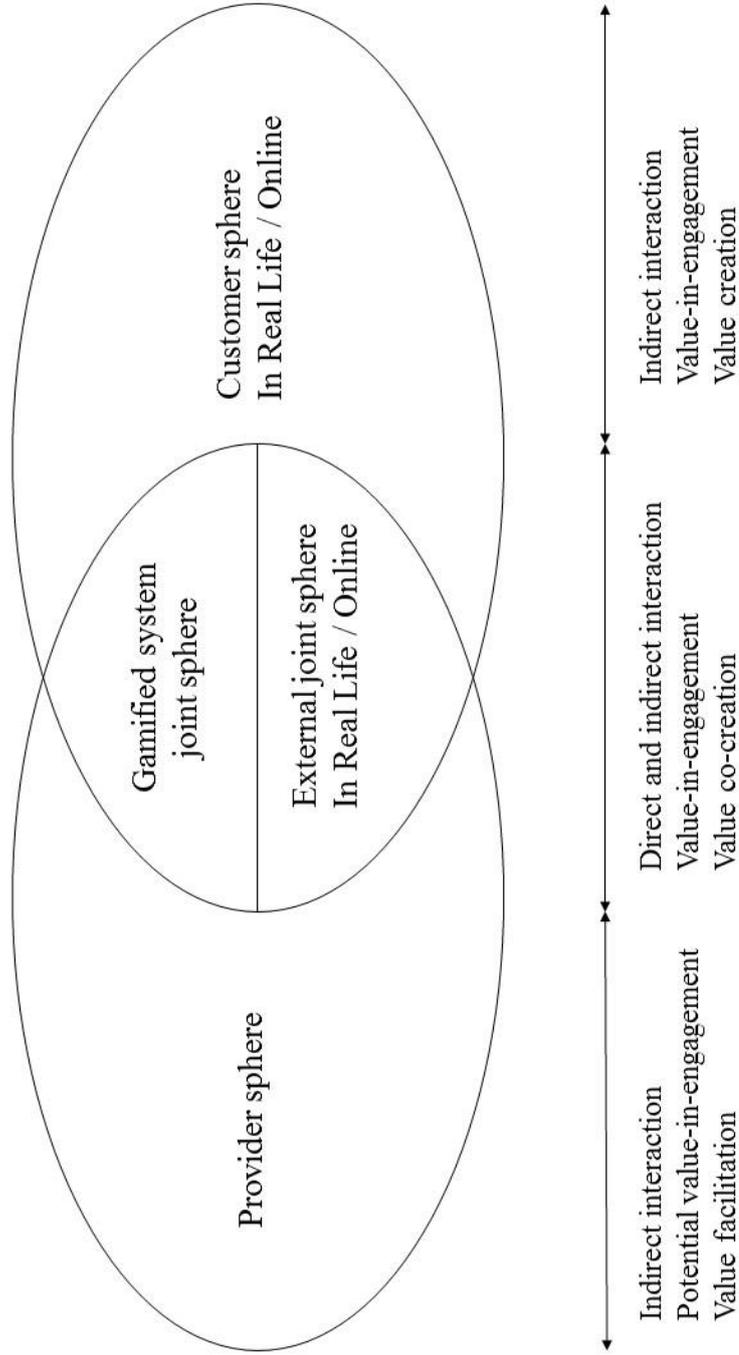


Figure 5.1: Value creation spheres on Fitocracy (adapted from Grönroos & Voima 2013, p. 141)

Provider sphere	External joint sphere		Gamified system joint sphere		Customer sphere	
	In Real Life	Online			In Real Life	Online
Provider	Customer - provider	Customer - other provider - provider	Customer - provider	Customer - integrated provider - provider	Customer	Customer - other provider
		Customer - provider as other provider	Customer - provider - customer		Customer - customer	Customer - other provider - customer
					Customer - non customer	Customer - other provider - non customer
Indirect interaction	Direct interaction	Indirect interaction	Direct interaction	Indirect interaction	Indirect interaction	Indirect interaction
Potential value-in-engagement	Value-in-engagement		Value-in-engagement		Value-in-engagement	
Value facilitation	Value co-creation	Value co-creation, involving another provider	Value co-creation	Value co-creation, involving another provider	Independent value creation, individually or collectively	Value creation through another online provider, individually or collectively
			Line of visibility/provider control			

Table 5.1: Analysis of the spheres of value creation on Fitocracy. (Adapted from Grönroos & Voima 2013, p. 143)

5.7 Provider sphere

The provider sphere refers to the internal, organisational sphere, where customers normally have no access. It involves decisions, plans, and processes which occur outside of the customers' visibility space. The purpose of those processes is to develop and maintain the necessary environment where value creation can be facilitated. This sphere involves only indirect interaction between providers and customers, as customers are only capable of assuming, asking questions or reading available information regarding what is happening inside. As the provider sphere does not constitute the focus of this study, as stated previously, there is no analytical section referring to detailed facts or providers' views regarding its function. However, when looking at it indirectly, from the customers' point of view, by asking them and searching through the online sources of information that are available to them, we can understand its history as well as its main characteristics.

Fitocracy was founded in February 2011, by Brian Wang and Dick Talens. The two friends had transitioned from a childhood of relatively poor physical fitness to time during their college studies when they had made such progress and change, that they decided to participate in bodybuilding competitions. After college, they partnered to turn their passion for fitness, along with their love for gaming, into an online business, with the vision to inspire and help others with their journeys towards better health and fitness. Despite their lack of prior programming knowledge, they trained themselves intensively, until they achieved to develop and launch the first version of the Fitocracy website in 2011. (Moscaritolo 2013).

The platform until the present time, has been through three main phases; the early phase, the peak phase and the plateau phase. The early phase lasted from February to November 2011. During that time the platform was based on invitation only, as it could still host a small number of members:

“Hey, so I've been on Fitocracy since the olden days. When I first signed up, in 2011 or 2012 it was closed and you needed an invite from an existing member or to request an invitation from the site.” (Mike)

Apparently, the culture at the time resembled the 4chan culture, where “*brutal honesty*” (Thad), in the form of rough critical comments and an aggressive sense of humour prevailed in the community.

The peak phase began when Fitocracy developed as a business, by attracting more investments as Wang explained in his personal blog: “*There was a stretch where we didn’t think we’d be able to raise capital and would have to close shop.*”

Fortunately, we managed to raise a seed round of financing from a group of fantastic investors, including [500 Startups](#), [ENIAC Ventures](#), [OCA Ventures](#), [Great Oaks VC](#), and quite a few others. Thank you for believing in our team and our vision. We wouldn’t be here without you” (Wang 2012). The start-up introduced the paid membership (Fitocracy Hero), and opened the system for members to join without an invitation. At the time, these changes were accompanied by what is described by old users as a big culture shift, during which people who used offensive language were being banned, and certain groups following the old culture migrated to other platforms, to leave room for a wider audience to enter the community. The company invested in new features, introduced the coaching programmes, started a collaboration with Arnold Schwarzenegger, and developed an integration with RunKeeper. As a result, it attracted a larger audience, meetups were frequent, new groups were created and populated by active members, and the culture of “*brutal honesty*” (Thad) was replaced by what is characterised by older members as “*mass niceness*” (Derek):

“It was a brand-new site and it was up and growing. So there were more and more people coming on.” (Rowan)

During this time the platform developed significantly and attracted broad media coverage. Kessler (2012) on Mashable talked about the improvement in user experience due to the addition of a “*native mobile component*”, a mobile-friendly version of the website, which however, did not initially include the website’s social features: “*Instead of just tracking your workouts, a new iPhone app called Fitocracy lets you compete against other users and friends*” (Kessler 2012). The integration with the RunKeeper app, enabling users to track their running workouts on the go and later

transfer the data to Fitocracy, was mentioned as an added advantage. Appearing among the five best fitness apps in metro.co.uk, Fitocracy was presented as the app suitable to “jazz up your workout” (Miller 2013), making a visit to the gym more interesting than before and explaining new exercises to users who were willing to learn.

In February 2016, on a Twitter update, Wang announced the acquisition of Fitocracy and his own change of plans for the future (Wang 2016). Since the end of 2015, participants reported the beginning of a plateau phase for the provider, which has continued until the present time. According to participants, certain bugs which had been repeatedly reported to the provider seemed to persist for years, while there had been little evidence of development, other collaborations or upgrades, and as a result a large part of the vibrant community had become quiet:

“We all knew that these websites have a start, growth, a build period and then start going away because the people go away.” (Rowan)

The change of ownership, appeared to confirm Rowan’s opinion, as the hard-working founders eventually chose to follow different paths. However, the platform is still running at the moment, hosting fewer members than it did during the peak phase, but maintaining an active community, consisting of members who frequently track their workouts, post and comment, encourage each other, create groups of common interests, arrange tournaments, and keep track of their fitness goals. According to the online magazine Lifehacker, in late 2017, Fitocracy signed an integration agreement with the app MyFiziq, which takes selfie pictures with a body composition analysis. Fitocracy was referred to as “a huge health and fitness focused social network,” hosting “12.5 million active users, of which 2.5 million are paying customers” (Caruana 2017).

5.8 External joint sphere

As joint sphere will be considered a sphere in which value co-creation between provider and customer becomes possible. The external joint sphere includes the spaces outside of the main gamified system in which customers get in touch with providers

either in digital environments (online) or non-digital, face to face communication (IRL).

5.8.1 In Real Life

Customer-provider

Some participants' statements indicated that customers and providers had met in real life, within fitness related environments on multiple occasions. From the provider's team, the only people mentioned in these testimonies were Brian Wang and Dick Talens, the founders of the company. As the company's offices are located in New York, members have happened to meet them at their local gym, while the founders were also participating in powerlifting competitions:

“Was convinced to compete in some powerlifting meets and travelled to support others who were competing. Also met Dick and Brian the founders a few times.” (Thad)

Along with the coincidental meetings, the founders actively participated in the community by joining arranged meetups between Fitocracy members:

“That was the New York meetup. And that's where I met the CEO, the founder and CEO of Fitocracy, Brian Wang.” (Rowan)

All the above interactions appeared quite important in the indirect interaction between customers and providers regarding the practices within the provider sphere because the founders were discussing with members about their business decisions:

“[We] definitely [talked about Fitocracy]. Because there's lots of things about Fitocracy that people, anybody who spends time on Fitocracy and does a wide range of activities like I do, they know there are many inconsistencies between disciplines. You want to earn a lot of points, you do weightlifting. But I believe the healthier aspect is cardio. And they don't give hardly any points for cardio, at all. I mean compared to weightlifting.” (Rowan)

“But Fito was expanding, and they were introducing coaching. I spoke with Brian at a powerlifting meet, and it was pretty simple, the old people who were here basically had to go so they could welcome in a larger audience. He didn't seem to want to make that decision, but from a business standpoint I understand the reasoning.” (Thad)

According to the rationale followed in Grönroos and Voima's (2013) spheres of value creation, IRL external interactions were direct, and, as they involved customers and the main provider, value had potential to be co-created.

5.8.2 Online

Customer-other provider- provider

There were different ways in which the provider interacted with customers through other online providers. Firstly, a formal way was used; the provider maintained active Fitocracy accounts on social media. On the website (Fitocracy 2018), one can find links to Twitter, Facebook, Google Plus, Pinterest, Tumblr, and Instagram. Through these platforms, the providers promoted Fitocracy, while maintaining additional media of communication with their existing members, using platforms of other providers. For example, Instagram is a platform that favours sharing pictures, while Facebook facilitates a public dialogue where questions can be asked and responded. Sometimes, Fitocracy would face technical problems and kept users informed through other social media, such as Facebook and Twitter.

“I think that Twitter is more connected because the site was down yesterday, so I actually went on their Twitter. Because that's where they usually post a notification in which they did say “hey, we're trying to resolve the issue.” (Raymond)

In the last example, Raymond was comparing the extent to which different social media were being deployed by the provider to communicate with customers, concluding that Twitter was the most prevalent. Communication through other

providers has been found to occur informally as well, particularly in the early years of the company:

“Dick Talens one of the founders of Fitocracy was a 4chaner, and he advertised Fitocracy in its early days and drew ideas from 4channers in how to build it as many people there are also gamers.” (Thad)

At a more advanced stage of its development, advertising Fitocracy on a platform such as 4chan would have been problematic, as the trolling culture of 4chan would not agree with the evident politeness and inclusiveness in the behaviour of the Fitocracy community, as will be further explained in the next chapter. Furthermore, there were passive ways, from the providers’ point of view, in which they also got in touch with potential customers, such as through a search engine:

“I just happened to find Fito on a google search while letting my dog out before I went to bed one night and decided to try it.” (Raymond)

Another example would be when Fitocracy was mentioned on another online source, such as an online article:

“I discovered Fitocracy from an article I read on the internet.” (Owen)

“I'd actually joined a little earlier because of xkcd, though I'm no longer sure whether it was this one:

<https://www.google.de/url?sa=t&source=web&rct=j&url=https://xkcd.com/940/&ved=2ahUKEwiwkryQ9encAhVO6KQKHQ6eCs0QFjAAegQIAxA B&usg=AOvVawIstcGjn-qNFBew9V6HtPyt&cshid=1534159416008>”

(Collin)

In the last three examples, the customer interacted with another provider, which was a search engine, an online magazine or a blog, resulting in indirect interaction with the Fitocracy provider.

Customer – provider as another provider

This category was mentioned very little in the interviews and groups. It constituted, however, a way of interaction between provider and customer. It refers to the existence of another online platform, created and managed by one member of the same provider sphere:

“I found Fitocracy through Dick Talens’ food blog. I don’t know if you’re aware of it, Dick is himself a bodybuilder. I found it in other places but first and foremost Dick’s blog.” (Irwin)

Irwin explained that he began his journey into bodybuilding by reading blogs, particularly those following the philosophy of leangains (Leangains 2018), which is a popular website offering paid coaching and nutrition programmes online. He pointed out that Dick Talens’ blog (Dick Talens 2018) was following the same philosophy, which indicated to Irwin that Fitocracy might follow it as well. This way he developed an interest to join the provider’s system. The participant’s account demonstrates that value co-creation could be initiated on a different platform, where the provider acted as another provider.

5.9 Gamified system joint sphere

The main platform of Fitocracy, accessed through a social networking site and a mobile app in IOS and Android, is a joint sphere, hosting a large volume of interactions between customer and provider as well as customers with each other, through the provider’s system. This sphere attracted the main focus of the study, as it is related to a large number of interview questions and responses about value creation on Fitocracy. As with the other spheres, it is described here briefly and will be better understood in the following chapters.

Customer-provider

On the platform, the customer comes in contact with the system, which has been created and maintained by the provider. As discussed previously, this will also be

referred to as ‘provider.’ The customers were enabled to co-create value by interacting with the features of the system, such as by tracking their workouts:

“I go to a boot camp exercise class near me. After my exercise, I would just basically go home, log in my information. If I went for a run, I would log in that information too.” (Lance)

The tracking system was to a large extent gamified. Customers automatically interacted with the game elements as they logged their workouts.

“Points, badges and levels are a nice bonus.” (Victoria)

Every exercise performed, translated into some points calculated by the system and added to the customer’s overall score, which in turn determined the level the participant had at any point in time.

“A big part at the beginning was liking the ability just to log in my exercises, and to...to get points to...to achieve certain levels...for whatever reason, I liked that aspect of it as far as getting points and achieving a higher level and just progressing that way.” (Lance)

In addition, certain features added extra rewards, such as completing ‘quests,’ or ‘achievements,’ which were pre-set combinations of exercises recommended by the provider. Completing them increases a customer’s score and offers a badge on their activity feed. Another example of an extra reward is when a customer surpasses their previous maximum scores at any particular reported exercise; in this case, the initials ‘PR’ (Personal Record) appear next to the score given for the exercise.

“And I really enjoy the “surprises” when I achieve a Quest or get a PR on something that I didn’t expect.” (Olivia)

It seems that interaction with the tracking system and its game elements may occur on the website or the mobile app or both, depending on preference:

“I’ve also never used the app...only accessing the website from a computer. I enjoy the challenges, quests, racking up points, levelling up, and finding new routines.” (Owen)

“Yes! Actually, I am only using the app. And I’m using the app as I work out. So, for example, if they have...I always put in the numbers that I’m actually doing. Sometimes to motivate me, I might put in a set number and like really really try to get to those reps. But generally, I track as I go along.” (Irwin)

Regarding tracking workouts, the paying members enjoy two main additional benefits. Firstly, they are allowed to save other users’ workouts, as they appear on the activity feed, for them to try and perform the same sets of exercises later.

“And if I really like someone else’s workout for the variety of types of exercises, I’ll save it and do it (or most of it) at some point in the future. That’s the main reason why I joined Hero status – to save more workouts.” (Olivia)

The second feature is that a Hero is capable of viewing their progress over time, at any exercise they have been doing from the time they started until the present time:

“It’s more about, ok, what did I do last week, and every end of the month I am looking for that Hero report to see what my totals were, because right now that’s kinda my focus; it’s how many hundreds of thousands of pounds do I have to lift to gain a pound of muscle.” (Helen)

Customer – integrated provider – provider

Fitocracy has collaborated with RunKeeper, to enable users to upload data from RunKeeper to the platform automatically. RunKeeper will be referred to as an ‘integrated provider.’ Customers tended to enjoy integration and request for more future collaborations. Some users had begun interacting with the integrated provider even before joining Fitocracy:

“I was already at that stage using RunKeeper which was entirely responsible for me running 3 Marathons. Prior to that, I was naturally fast at sprinting, but I was that guy who would make fun of runners. My first tracked run was maybe 3km and very slow, and I remember feeling sick after, but the app made me keep going.” (Ken)

Customer – provider – customer

In this category, the provider is mediating the communication between customers. These interactions constitute a large part of Fitocracy, as it is the foundation of its online community, where people from different locations and backgrounds can meet together and share a same common interest; physical fitness:

*“The diversity of background and social experiences is amazing.”
(Raymond)*

“I love watching this community of support and people with similar interests as myself.” (Victoria)

By using the provider’s social networking features, such as public posts, comments, props, private messages, and public or private groups, the customers collectively create value; this process is classified as value co-creation, as it would not be possible without the involvement of the provider of the system. Groups accommodate a variety of fitness or non-fitness-related interests, and users tend to seek for groups closer to their preferences:

“Yes...the 1000 push-ups in a month group has kept me active. Other groups I regularly engage in are: Over 40, Ex-smokers, Quitting Smoking, and Dark Humor (oh...it's really bad there. Really, really bad).” (Owen)

The social aspect of Fitocracy is closely connected to the tracking system, as users tend to look through each other’s workouts, comment, support and learn from them:

“I try to make sure I read through everyone's workouts/training. See if there is anything I can apply to myself, comment if I see someone is feeling

discouraged about something or hit a PR or maybe said something interesting in their comments. And kinda rinse and repeat throughout the day.” (Thad)

“I’ll comment on specific workouts if I think they are particularly amazing or if I like what that Fito did.” (Olivia)

Users who are involved in the community, perform some different actions almost on a daily basis, to stay up-to-date with their peers’ workouts and posts:

“8:30 - 9 AM - Usually scroll through the activity feed and look at workouts. Comment, prop and/or note ideas accordingly. I try and comment on most level ups and workouts that jump out for size or PRs, would do more but time is limited, and I am usually reading emails at the same time. I will also look through the friends feed at this time to make sure I did not miss anything they might have posted to a status.” (Raymond)

‘Props’ are the equivalent of ‘likes’ on Facebook, and usually accompany any social contact, posting and commenting:

“I have a few consistent prop-giving Fitos, and I’m cool with that. You can also purchase Hero status for a friend. Comments, questions, and recommendations are also good ways to give/receive support.” (Owen)

For another user to become a ‘friend,’ one needs to click on their ‘follow’ button on their profile page, upon which the user receives a notification that they are being followed. They can then follow the user back. Mutual following means that they can see each other’s activities in their feeds, and, if they have Hero accounts, they are allowed to message each other privately:

“I would not consider myself that socially active, but I do try to be part of the community. I don’t post in the groups all that frequently, but try to support regularly with props and comments. I have not added a lot of followers in the last year, because I do like to actually pay attention to what people do.” (Raymond)

Gamification appears in the form of social features as well, such as group challenges, which are provided in the system and the user who initiates them can adjust the type and conditions. There is a leaderboard with the ranking of the participants' scores, with of course a winner at the end of each challenge:

"I like the "challenges" aspect and competing against myself (and others)."
(Caren)

An additional game element available only to paying members, which encourages them to compete with each other are duels. I first encountered the idea of a duel from my discussion with Thad on one of the private groups:

"Duels are issued between Fitocrats. I believe you have to be a hero to issue a duel though. It's a little button under your profile picture. You select the type of duel you want to challenge the person to and hope that they accept. If they do you set a date range that you want the duel to run through, and then all you need to do is record your workouts. They'll be included into the duel, and at the end there will be a winner." (Thad)

By exploring the platform, I discovered that there is an option on each of the paying user's profiles, where another paying member can click to challenge them to a duel. A duel is a one-to-one competition with a certain duration and a certain goal. If the other user accepts the duel, then it appears on both users' activity feeds, where all members can see the outcome. It is based on the premise that the users will honestly self-report their workouts, and compete fairly by their actual performance.

5.10 Customer sphere

The customer sphere, according to Grönroos and Voima (2013) lies beyond the provider's line of visibility. In the context of virtual brand communities, activity performed in the customer sphere is referred to as "*offline (invisible) consumer engagement*" (Brodie et al. 2013, p. 109). It is illustrated here, that invisible engagement does not exist only offline, but in online environments as well. Indeed, the activities within that sphere were not immediately visible to the Fitocracy provider;

however, some activities were being reported on the system and therefore became visible, provided that the customer made the reporting, and that the reporting was honest, or as close to reality as possible, depending on the features and limitations of the provider's database. The customer sphere involved value creation performed by the customers, individually or collectively, as in the authors' model. Additionally, it involved interaction with non-customers, such as family, colleagues, and friends of the customers, as well as other online providers, including other online communities.

5.10.1 In Real Life

Customer

In real life environments, customers – users of Fitocracy are engaging in activities related to the Fitocracy system, and it appears that their life becomes connected to this service, to varying degrees. This connection is expressed in a way that implies that Fitocracy influences daily physical activity choices in real life:

“I have to say without Fitocracy I don't think I would have hit advanced strength standards or even have a fairly consistent training habit.” (Ken)

The customers perform their workouts before reporting them on the platform. At that stage, they are not visible to the provider or other customers. However, they keep into consideration that they will at a later time, go online and report their activity. As a consequence, they may push their effort to gain maximum rewards and positive feedback from the provider and other customers:

*“I sometimes do a workout because I know it'll give me more points.”
(Caren)*

In some cases, participants would bring forward details about their lives and the influence Fitocracy has, and they often claim they have learned even life lessons from their participation in it:

“So combined with a very demanding but rewarding career, raising two daughters on my own, and trying to get healthier and stronger amidst my

sometimes crazy life, fitness & Fitocracy keep me grounded. I have learned so much about myself and am doing things that I never thought I would ever be able to do. I still have some pretty lofty goals for myself and need to make changes in my life to achieve them, but I have learned to accept that small achievements can add up to big results.” (Olivia)

It becomes apparent that customers’ physical activity and, as a result, their quality of life may be influenced by their participation on the platform, according to their claims. In this category, interaction with the provider is indirect. However, the provider’s existence is in the mind of the customer who individually and independently engages in value creation.

Customer – customer

In addition to individual value creation, customers would create value collectively in real life environments. Particularly during the peak time of its existence, the Fitocracy community organised several ‘meetups’ in different locations around the world, mainly in the US:

“Most of the planning would be done in the groups like Upstate New York, or city groups. We’d make an announcement and see when a good date would be for a meetup. People would sign up essentially, and that’s how it would go.” (Thad)

Since 2016 the community became quieter, and meetups became scarcer than before:

“I don’t really see that happening anymore.” (Thad)

Some meetups were in small groups and were regular meetings mainly for customers to exercise together and support each other:

“I met him and Erin through here and then started going to the same gym as them since we lived probably 20 minutes away from each other. We would meet there 2-3 times a week. They both helped me quite a bit with

training and form as I was still transitioning from primarily weight loss to getting into powerlifting when we first met.” (Thad)

The purpose of the meetups was not purely exercise related. It involved fun activities, and, as often reported, going out for meals and drinking together. Participants reported a bonding process taking place through those meetups, with Fitocracy being the common ground:

“It was always fun meeting with other Fitos. The first one I had ever met happened to be swinging through Albany NY where I lived at the time, and we met to have a few beers together. It was fun to share stories about Fito interactions and just talk about fitness goals.” (Thad)

Sometimes meetings in real life would result in friendships and romantic relationships:

“But, the benefit of an internet community is that it also made some of the local online friends into real life friends, as we started hanging out. In fact, in 2 weeks, I’ll be attending the wedding of two of my closest Fito friends! The guy actually moved across a few states to be with the girl.” (Zoey)

Customer – non-customer

As this sphere is part of the customer’s life, the value creation processes often involve non-customers who belong in the social environment of the customer. They can be people who engage in physical activity as well:

“Sometimes in the gym, someone will come up to me, clearly at a level beyond where I am at, and they will make an encouraging comment or just start a friendly conversation about training and ask me questions.” (Ken)

Non-customers can be the customer’s family environment:

“My son also had his spelling bee today. He ended up 12th out of a little over 150 4th graders, so I was pretty proud of him. He’s ranked 1st out of the 4th graders in math so overall, he’s been doing very well. When I was living in NY, he wasn’t doing so great, but since moving to California, he

has really taken off. I think there are a lot of reasons for it, but one of the main reasons is physical exercise throughout the day.” (Thad)

Sometimes even memories from interaction with family may interfere with value creation in this category:

“Because my Dad had convinced me I was just terrible at everything with his constant kicks in the butt. ;-/” (Derek)

The wider environment of friends and colleagues appears to have a say in the customers’ engagement with physical activity, often involving positive but sometimes negative opinions:

“...feeling like the odd one out in real-life with how much I obsess over fitness.” (Victoria)

*“I’ve not met anybody in real-life that shares my same passion for fitness. Sure, I have friends that do some of the same activities that I do (tennis, yoga, weight lifting, pole dancing) but I’ve never felt able to share my enthusiasm for the lifestyle as a whole. When I describe what I do outside of work, people look at me like I’m crazy for wanting to do so much and especially *why* I do what I do.” (Victoria)*

Customers tended to interact with their peers in real life and discuss about Fitocracy. They would recommend it and attempt to convince non-customers to join:

“I have tried to share Fito with fitness-minded friends but only by explaining the workout tracking functionality which is what brought me over in the first place.” (Victoria)

For various reasons non-customers might not find Fitocracy suitable to their own needs:

“I have friends who simply NEVER liked logging their activities, or felt that the arbitrariness of the points system was too much of a drawback, or

didn't enjoy the hint of competition involved. Or it worked for them for a while and then stopped interesting them.” (Derek)

The interaction between customers and non-customers is for the most part invisible to the provider, yet it is capable of making a positive or negative impact on value creation.

5.10.2 Online

Customer – other provider

As users of the Internet, and often owners of smartphones, the participants shared stories about their interactions with other providers, some of which would share similar purposes with Fitocracy:

“I had tried many of the other sites, Bodyspace, TwinBody, BodyBoard, GetFit, Fitflash, Staywow, NerdFitness, Jefit, Throwdown, Pumpup; I think that about sums up the big ones.” (Raymond)

“I tried Bodyspace briefly, but I didn't feel that it was very user-friendly when trying to log anything as I worked out.” (Olivia)

In some cases, the other provider complemented the Fitocracy app, by providing an additional small feature which would be absent from the main platform. The combination of the two was a form of integration stemming from the customer:

“the main motivator for me in terms of progress is based around using a strength standard app in conjunction to Fitocracy, there are a number of websites serving the same function.” (Ken)

Ken was participating in the discussion groups, and explained to the rest of the participants how another provider would add to the value they derived from Fitocracy:

“I have not used this website much having only recently discovered it, but I could see this being used very well within Fitocracy as something separate to the level and badge system, effectively ranking by strength relative to

size and age across the main lifts. Perhaps this could be useful to some of you as another layer of motivation. Check it out if interested.” (Ken)

Other providers could be online sources of information such as YouTube or fitness blogs and online magazines:

“But for me it was more of reading a lot online, talking to people, finding resources like bodybuilding.com and you know that was before the big huge...what’s that one company now, beach body? You know the beach body? I don’t know if you’ve heard of that, but it’s kind of a fad where you eat healthier but you drink shakes all the time and stuff like that, and you see some people on Fitocracy posting negatively about it.” (Olivia)

Participants would create value individually, by obtaining knowledge and ideas from these sources, and often feeding them back to the Fitocracy community, through discussions about fitness-related topics, as will be seen later in the analysis.

Customer – other provider – customer

As I was socialising and making friends on Fitocracy, members decided to invite me to become their friend on Facebook as well. I then realised that many of the members including my interview participants were already Facebook friends with each other. It appeared that communications frequently moved beyond Fitocracy, as other social media were being used as well. It was reported, that certain groups migrated to Facebook groups and that Fitocracy users were following each other on Instagram.

“There are a few people that are in that group that are still here but they’re not really active. A lot of them migrated to the Facebook group. The Facebook group is pretty active. One of the rules of that group is you have to actively participate or you’ll be kicked out.” (Thad)

In addition, as there are numerous apps with related purposes, non-customers would sometimes become customers by getting in touch with current customers through another provider:

“I joined Fitocracy about a year and a half ago (I think) after seeing a user on a food logging app, show snapshots of the workouts that he was logging here. I finally searched and decided to give it a try.” (Olivia)

The above demonstrates, that integration with other platforms is naturally emerging, whether there is a certain collaboration between the main provider and other providers, or without it, due to the interconnectedness of social media through their users’ interactivity.

Customer – other provider – non-customer

Customers of Fitocracy were active on social media, which means that they were used to interacting with other people online through the mediation of other providers:

“I’m a social media nerd, in the sense that I think I enjoy socializing online to a somewhat higher degree than many people. I may have already mentioned that I even ‘came out of the closet’ online.” (Derek)

For example, 4chan was mentioned as a platform where users of Fitocracy, due to their interest in fitness, had participated in the past:

“4chan is just an image board with subtopics. I guess similar to Reddit in many ways if you’re familiar. People post threads in those subgroups and /fit/ (health and fitness) is one of them. You’ll often hear of 4chan being called the cesspool of the internet, and that’s because it is a pretty open forum where all kinds of things are discussed. Some of it can be pretty vile, but generally, if it’s not illegal, it is allowed.” (Thad)

It appeared that other online communities of fitness-related interest were spaces of online value creation, independent of the main provider. Customers’ experiences from interactions in these environments, might be transferred to the joint spheres of Fitocracy, fuelling positive or negative value creation processes, as will be explored in the following chapters.

5.11 Conclusion

In the first, descriptive part of the analysis, an overview of the field of data collection has been provided. Fitocracy has been seen as a service, which, according to Grönroos and Voima's theory (2013), can be pictured as four spheres of value creation; the provider sphere, the external joint sphere, the gamified system joint sphere and the customer sphere. Within these, there are some different interactions between customers, non-customers, the provider and other providers. To encapsulate the value creation processes, the notion of value-in-engagement has been introduced and explained. Moving forward, the rationale of the interpretations and emergent themes will be linked to the identified spheres. The themes appear across the spheres, and represent engagement processes, resulting in positive or negative, creation or co-creation of value-in-engagement.

6. DATA ANALYSIS II: ENGAGEMENT PROCESSES CONTRIBUTING TO VALUE CREATION

6.1 Introduction

6.1.1 Rationale behind the thematic analysis

This chapter responds to Research Question 1. As suggested in the previous chapter, value creation processes are considered as engagement processes; therefore, the two terms have been used interchangeably. They are referred to as ‘value creation’ or ‘value co-creation’ according to the parts of the spheres model (Grönroos & Voima 2013, adapted in chapter 5) in which each process is situated; value co-creation takes place within the external joint sphere or the gamified system joint sphere, whereas value creation occurs in the customer sphere. Grönroos and Voima (2013) explained that value creation may be positive or negative, without further specifying the possible processes that comprise positive and negative value creation. Following the authors’ logic, although positive and negative value creation have been more accurately termed as ‘value formation’ (Echeverri & Skålén 2011), the term ‘value creation’ has been kept due to its broader use and acceptance (Grönroos & Voima 2013). By consulting the extant literature (Echeverri & Skålén 2011; Grönroos & Voima 2013; Minkiewicz et al. 2014; Zainuddin et al. 2017), and comparing existing constructs with the data, I identified the following types of value creation processes:

Value (co-)creation: refers to engagement processes in which value is created, while value creation is clearly positive (Echeverri & Skålén 2011; Grönroos & Voima 2013).

Value (co-)recovery and (co-)protection: refer to engagement processes which ensure that value creation remains positive. Value (co-)recovery is Echeverri and Skålén’s idea of “*shifting away from co-destruction towards the co-creation of value*” (2011, p. 369). It is an engagement process which intends to retrospectively restore positive value creation, when some degree of destruction has already happened. Following the authors’ logic and the research findings, the proactive notion of value (co-)protection has been added to describe engagement processes intended to prevent shifting away from (co-)creation to (co-) destruction.

Value (co-)inhibition: is conceptualised according to the idea that some processes may inhibit value creation (Minkiewicz et al. 2014), or act as barriers to it (Zainuddin et al. 2017). Value (co-)inhibition is considered a negative value creation process.

Value (co-)destruction: refers to engagement processes in which value is destroyed, and value creation is clearly negative (Echeverri & Skålén 2011; Grönroos & Voima 2013).

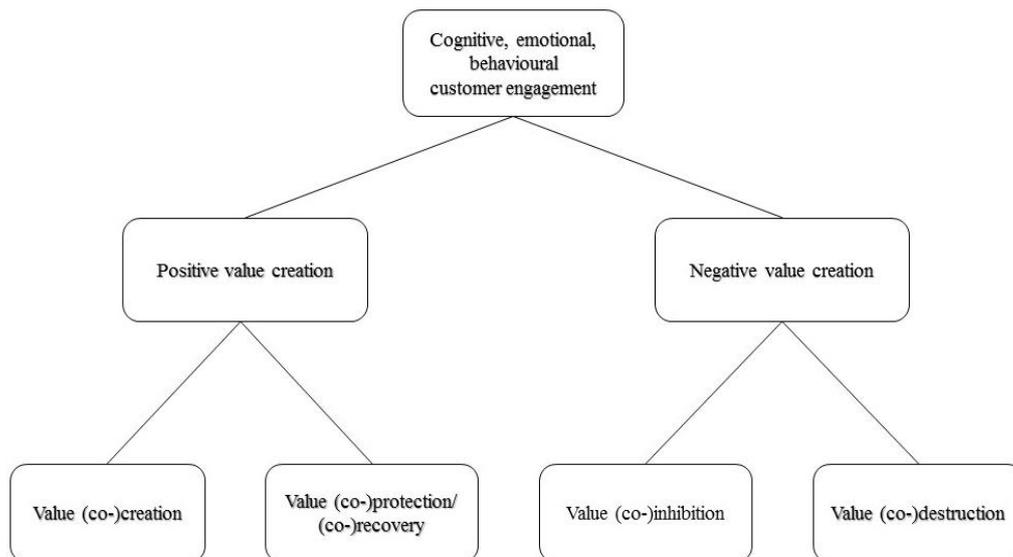


Figure 6.1: Engagement processes of positive and negative value creation on Fitocracy

Following the notion of customer engagement as understood by Brodie et al. (2011), value creation/engagement processes will be explored in terms of their behavioural, cognitive and emotional dimensions, as they emerge from participants' accounts. Behavioural engagement refers to the participants' reported actions within the external joint sphere, the gamified system joint sphere, and the customer sphere. It will be noticed in the analysis that the participants emphasised the gamified system joint sphere and the customer sphere, while the external joined sphere played an auxiliary role in value co-creation. Cognitive engagement pertains to participants' expressed thoughts and reflections which contributed to value creation within the above spheres. Finally, emotional engagement referred to moods and emotions within the spheres

(Reeve 2005). Figure 6.1 illustrates the concepts deployed in the analysis to describe engagement processes of positive and negative value creation.

With a view to present emotional engagement using existing emotion terminology, I consulted the work of Reeve (2005), which provides explanations of the fundamental aspects of human emotions. Initially, I identified participants' moods, when expressed in their responses, which have been referred to as positive and negative affect. According to the author, "*positive affect reflects pleasurable engagement*" while "*negative affect reflects unpleasant engagement*" (ibid., p. 317). Reeve made reference to Shaver et al. (1987), a paper which was used as a primary source of emotion terminology, along with the work of Izard (1991) which was found implemented in Westbrook and Oliver (1991). I therefore identified seven basic emotion categories; love, joy, surprise, interest, anger, sadness and fear, which involved more specific emotions and are associated with positive or negative affective states (table 6.1). In addition, I consulted the literature on humour, and considered 'mirth' as a positive emotional response to well-received humour (Martin & Ford 2018), which I placed under the emotional category of 'joy'. It should be noted, that my approach bears similarities with Laros and Steenkamp's (2005) study on emotions in consumer behaviour. The authors also identified categories of basic emotions, specific emotions, as well as their associated positive or negative affect. The difference is in the identified emotions and the subsequent choice of terms, due to the differences in the contexts under investigation. Table 6.1 presents the categories of emotions, specific emotions and associated moods identified on Fitocracy. Specific emotions and moods include the terms which have been used in the analysis to describe participants' emotions.

Basic emotion categories	Specific emotions	Moods identified
Love	Love, liking, caring, compassion (Shaver et al. 1987)	Positive affect
Joy	Amusement, enjoyment, gladness, satisfaction, enthusiasm, excitement, contentment, pleasure, pride, hope, optimism, relief (Shaver et al. 1987), fulfilment (Laros & Steenkamp 2005), mirth (Martin & Ford 2018)	Positive affect
Surprise	Amazement (Shaver 1987), surprise (Shaver 1987; Izard 1991; Westbrook & Oliver 1991)	Positive affect
Interest	Interest (Izard 1991; Westbrook & Oliver 1991)	Positive affect
Anger	Irritation, annoyance, frustration, anger, hostility, dislike, resentment (Shaver et al. 1987)	Negative affect
Sadness	Suffering, sadness, grief, disappointment, displeasure, regret, embarrassment, insult, sympathy (Shaver et al. 1987), nostalgia (Laros & Steenkamp 2005)	Negative affect
Fear	Fear, anxiety, nervousness, worry, distress (Shaver et al. 1987)	Negative affect

Table 6.1: Basic emotion categories, specific emotions and moods identified on Fitocracy

6.1.2 The journey of a Fitocrat: stages of engagement

Within the non-academic literature of gamification (Marczewski 2014), the ‘hero’s journey’ (Campbell 1949) was used to describe three stages in customers’ engagement with a gamified system. Campbell’s “*departure*” (p. 41), “*initiation*” (p. 81) and “*return*” (p. 167), were adapted to games and gamified systems as the stages of “*onboarding*”, “*habit-building*” and “*mastery*” (Jo Kim 2012). Later, Jo Kim added

the stage of “*discovery*”, which precedes the “*onboarding*” stage (Jo Kim 2018, p. 93). On Fitocracy, although not strictly divided, four main phases can be identified as well. Therefore, when it is considered necessary to refer to a participant’s current stage, I refer to Fitocracy members as ‘potential customers’, ‘new customers’, ‘experienced customers’, and ‘advanced customers’. Participants remembered discovering Fitocracy while searching for a fitness app themselves, or through a friend or relative:

“[My friend] told me about this website and she thought I might like it. Because I like being around people, I like talking to people, I like sharing experiences and stuff and she thought I would be a good fit.” (Rowan)

Rowan as a potential customer was introduced to Fitocracy by a friend who thought he would be interested in joining. Participants described the experience of being a new customer as a learning phase involving observation, as well as some confusion:

“It just kind of...I mean it’s...you just kind of have to jump in and I just observed a lot, saw how people are posting, and...then I figured out what it meant to give a prop you know I just kind of took my time there to get used to the site.” (Olivia)

“I think in the beginning the app was confusing? You know so there’s a little bit of a frustration factor, but I figured it out. And that was that, and just you got it.” (Helen)

Olivia and Helen referred to a short period of time when they familiarised themselves with the function of the system. Furthermore, participants explained that when they became experienced, they felt capable of using the platform and explaining it to others:

“I think it probably...it probably took me three to four weeks to just...to get a good foundation and then it probably took me extra maybe...maybe a couple of months to really feel comfortable and be able to tell people what the site was about and how to use it, that kind of thing.” (Olivia)

Finally, advanced customers did not talk about their mastery directly, but it became apparent from certain indications. For example, if their current level was above 45, they were likely to have a long experience on the platform, thus they could be considered advanced. Other indications included talking about several previous years of experience, demonstrating a tendency to share their experience and knowledge with other customers, and being relatively well-connected, followed by many other customers.

It should be noted that disengagement could occur at any stage. Providing an exhaustive list of reasons for disengagement is beyond the scope of this study. However, some possible reasons can be suspected. In this chapter they can be found in examples of negative value creation, and in the following chapter, in the discussion about changes in motivational direction, and depletion of motivation.

6.2 Theme 1: Activity tracking

Fitocracy members engaged in tracking physical activity through direct interaction with the provider's tracking features. Most physical activity tracking was based on self-reporting, a technique which has also been used in web-based physical activity interventions in the past, with positive results on the short term (Maher et al. 2015). Despite concerns about users reporting false information (Motl et al. 2005; Adams et al. 2005), the method of self-reporting has been considered as "*trustworthy and useful*" (Maher et al. 2015, p. 9; Crutzen & Göritz 2011). As far as participants were concerned, activity tracking could be the reason for joining Fitocracy, for example as a means of making regular physical activity more interesting:

"I am from Pittsburgh, PA (US) and have been lifting for the past few years. I started to plateau a little bit in my training, so I decided to look for an app to track workouts and spice things up a bit." (Carsen)

Keeping a digital diary

According to extant literature on smartphone apps in physical activity interventions, keeping a diary of physical activity on a mobile app has been found to be preferred by

people, as opposed to keeping a pen diary (Bort-Roig et al. 2014). Participants presented the process of activity tracking as a digital form of note-taking, which they previously performed through pen and paper:

“Originally I was just looking for a free activity tracker, so I wouldn't have to carry a notebook to the gym.” (Shauna)

It appeared that reporting an activity on Fitocracy served as a form of documentation and confirmation that the activity had been performed, which sometimes became an integral part of participants' routine:

“Logging my workouts on Fitocracy has just become part of the process - if I don't log my workout did it really even happen? ;)” (Mike)

In the database of available exercises, which customers could choose from when tracking their sessions, each exercise included an information section with a brief description of the exercise, and often a video of a person performing the exercise and demonstrating the correct technique. According to a review by Conroy et al. (2014), “top-ranked apps for physical activity” (ibid., p. 649) included certain common features, among which the most prevalent was providing “instruction on how to perform behaviour” (ibid., p. 650), which is consistent with Fitocracy's feature, and the importance it had for participants:

“[...] and spent a lot of time wondering "what is this exercise they did?" and looking things up on Google and elsewhere. This was before Fito had video descriptions of some of the exercises in the Tracking area.” (Derek)

Derek's account indicated some relief from a difficult process of understanding how to perform complex exercises. This was a form of positive value creation, combining value co-creation with co-recovery.

Progression monitoring

An evident source of value co-creation pertinent to activity tracking was progression monitoring. All members could view their history by scrolling down on their profile

page. They could compare their previous accomplishments against recent ones, and observe changes over time:

“The concept of using Fitocracy was to see if I could get strong using the same general framework of being able to easily track, measure progress and see milestones towards goals.” (Ken)

Ken talked about the importance of progression monitoring. He also referred to goal-setting, an idea which is frequently found in the literature of gamification (Deterding, Sicart et al. 2011; Hamari & Koivisto 2014; Hamari 2017), as well as physical activity interventions (Shilts et al. 2004; Michie et al. 2009; Greaves et al. 2011) and is considered as a valuable tool for encouraging behaviour maintenance. Progression monitoring allowed customers to set their own goals and to keep track of their efforts towards achieving them. Paying members had the additional option to view their progression in a graph form, which was separate for each exercise they had reported until the present time:

“This is the best program that I've found for tracking and I like that I can re-use recently tracked workouts, and access my history for specific exercises to see if I'm improving.” (Tyra)

“I came to Fito a few years ago to track workouts and progress. [...] It's nice to be able to look back over the history of workouts by exercise.” (Zack)

The evidence suggested that engagement in progression monitoring, evoked enjoyment, fulfilment and pride, and, from a cognitive viewpoint, a strategic thinking about one's physical activity, which contributed to value co-creation.

Using the database: the role of richness and clarity

When customers wished to log a new workout, they searched through a menu, which listed all the types of activity available on Fitocracy's database. Participants reported that there was a lack of clarity in the wording of the exercises, due to a lack of internal consistency, or to language differences between British and American English:

“Logging workouts is pretty straight forward. It's helpful that you can save workouts in your own list that you do repeatedly. Searching for workouts could use some work, as not all the workouts are named consistently. For example, some are called single leg, some are called one-legged. Sometimes there are hyphens, sometimes not.” (Santo)

“Biggest issue for me is the terminology. Americans call one exercise by one name and Brits might call it something else. Other than that, tracking is easy and great that the history can be easily seen which will make you push yourself if you have been using the same weights for some time.” (Dustin)

Santo and Dustin’s quotes presented engaging in using the database as a process of value co-creation and possible co-destruction. The richness of the database appeared important to participants, and the absence of some exercises resulted in value co-destruction as well:

“There will always be issues of doing exercises that aren't listed, so you have to make due with what's available. It's hard to create something that is just right for everyone.” (Santo)

It appeared that value co-recovery, through logging an exercise which was close to the activity which had been truly performed, was the customers’ best possible choice, as the provider responded relatively slowly to customers’ messages suggesting the addition of new exercises. Lack of responsiveness to customers’ feedback resulted in negative value creation in two ways: firstly, it co-inhibited value because customers were discouraged from sending feedback; secondly, it co-destroyed value by causing annoyance:

“The one thing that I would think as a little bit of a problem is that adding exercise that are not in the database can take some time. I would like to see more of a quicker response when it comes to adding new exercises. But what I usually do is I take an exercise which is in close proximity to what I

do but it is not actually the exercise that I'm doing and then I put it in the notes that this is not actually this exercise but it's that exercise. And I think that is a little bit of an annoyance. But it's not too much of an annoyance."
(Irwin)

Irwin's account indicates that creative solutions were often discovered by customers who engaged in value co-recovery, resulting in an overall positive value creation process despite certain technical issues.

Activity tracking based on available options

As the provider offered a system with a variety of options for activity tracking, customers used them based on their personal preferences. Through using the mobile app, or the website on their mobile phone's browser, customers could log their workouts as they were happening, normally during resting time:

"19:30 to 20:30/20:45 powerlifting training. I log my exercise on Fito while I am resting in-between sets." (Shauna)

Customer's workouts would be saved, and, if they were 'Heroes', they could save other customers' workouts as well. Consequently, for each session, customers could choose between logging previously created workouts and creating new workouts from the beginning.

"I think my ratio of using custom (saved) workouts to new workouts is about 50/50." (Olivia)

Floyd was pleased with the option of using pre-made workouts, and chose that path:

"I generally use the "List" version of the Track tool with pre-made workouts. I log it on the phone while working out. It's clean and easy with the detail I want." (Floyd)

Some participants reported planning their activities beforehand, using the above features. Dustin would plan to repeat one of his saved workouts:

“I have saved some strength sessions on Fitocracy, so will decide before I leave the house which session I will compete.” (Dustin)

Tyra preferred to plan her workout based on her most recent one, and attempted to make it slightly harder:

“A typical day would be going into my gym (in the garage) with my computer and pulling up my "recently used" workouts so I can quickly access what exercises I plan to do that day. I look at the sets/ reps/ weights I used the last time I used that workout, and decide what I'm going to do better this time! I type in what I actually do as I go through my workout, then hit "finish." Done! Occasionally I'll log in to look at my feed and see what others are saying, but for the most part I've just been using the site to track workouts.” (Tyra)

Other participants preferred to log their workouts after they had completed them, mainly using the website on their computers:

“I go to a boot camp exercise class near me, after my exercise I would just basically go home, log in my information, if I went for a run, I would log in that information too.” (Lance)

Logging workouts after exercise involved previously saved workouts as well:

“8:30 AM - Log on to main site to record workout. This is relatively quick as I have them all saved.” (Raymond)

It becomes apparent, that positive value creation became possible because the provider offered multiple activity tracking options to match customers' preferences. However, logging workouts through the website after they were completed could be preferable due to usability issues with the mobile app:

“After working out in the evening (which I track on paper as the android phone app is not very user friendly) I log on to my PC and track my workout.” (Sophia)

“Yeah, until this day I don’t, I don’t do it live, I actually chicken scratch my paper and then enter it to Fitocracy later. Because I find the app a little bit...cumbersome.” (Helen)

Difficulties in using the platform appeared to be a risk of value co-destruction. However, participants engaged in value co-recovery by using alternative ‘pen and paper’ methods to remember the details of their workouts and to upload them after each session.

Activity tracking through the website and/or through the app

In previous studies, ease of use was found to be important for users, when evaluating the quality of health and fitness apps (Gowin et al. 2015; Stoyanov et al. 2015). However, different opinions were expressed by participants in terms of what they found user-friendly or not. As a consequence, their preference towards using the app or the website for activity tracking would vary as well. Some made it clear that they had no problems using the system, and they used both media interchangeably:

“I have been using both. I find both to be easy to use. When I’m at the gym, I log each activity as I do them. I have a screenshot of the Excel list of workout set/reps for my program, then as I do them, I log them into the app. In the rare event that I don’t, I will log it through the website when I’m at a PC next.” (Zoey)

Other participants preferred to use the app:

“[I am using] the app [to track my workouts]. [...] Absolutely. I’ve never had a problem with logging workouts.” (Wendy)

For Zoey and Wendy, engaging in activity tracking through the app was a positive value creation process as they appeared to feel pleased and contented with its function. Some participants acknowledged the usability issues in the app, and chose to use it as a primary tool of activity tracking regardless:

“The logging system isn’t very straight forward. I’ve never really used the website to log, only the android app. On the app it looks like you log each exercise as a workout and not that you can add exercises to create one workout. That took me some time to figure out. There are also glitches that have never been fixed, for example the advanced pull up option. In the app when you try to add advance it completely closes the app. That’s when I have to go on the website to fix it. The intervals exercise and hiking have a difficulty level, and on the app, it stays at the default and won’t let you select anything else. Other than that, once you get a hang of the data base it’s a good tool. There are a lot of exercises, searching for them is just the tedious part.” (Janiya)

Janiya’s account is an example of a customer who, instead of feeling disappointment about the technical issues, engaged in value co-recovery by discovering solutions, and ensuring a positive value creation through her direct interaction with the provider. However, disappointment caused value co-destruction and co-inhibition for many customers who had attempted to use the app. Collin expressed his disappointment in the following response:

“Well, I haven't looked at the mobile app in quite a while because I found it messy and non-intuitive, which means that I only log what I did when I'm spending a lot of time in front of a full screen with a mouse - so, when I have a moment at work, basically. That's an interface design issue - strange how many developers fail to properly implement a truly intuitive and user-friendly interface.” (Collin)

Sometimes customers engaged cognitively in value co-recovery by attributing the issues to their own skills or preferences:

“I use the website mostly. I find the app to be cumbersome, but maybe that's because I don't use it enough. Also, I'm not a good or fast typer on a phone.” (Santo)

There were advanced participants, such as Rowan, level 52 at the time of the interview, who had evidently experienced negative thoughts and emotions about the app, and had completely stopped engaging with it:

“Oh yes! The apps are horrible! Absolutely horrible! I’ve tried to use the app just a bit but it’s just, it’s just so poorly made...they are very very very bad. And in fact, I go to WTF [public group called ‘Welcome To Fitocracy’], and if somebody goes ‘hey, I’ve just downloaded the app. I hope to get help here’, I’m like ‘Yeah, the app’s okay but you really need to go to the website’, because there’s stuff you can’t do on the app, whether it’s an Android or Apple [...] For me it’s just a short interface for a workout. You can probably put your workouts in there and that’s not so bad but anything else, they’re horrible, I mean, I’d much rather use Google Chrome. I am an Android user; my girlfriend is an Apple user. But anyways I’ll go use Google Chrome to log a workout, if I can’t get hold of a PC. I won’t, I’ve actually just gotten rid of the app, the app is just a pain in the butt! Never liked it!” (Rowan)

Rowan, despite feeling anger and frustration about engaging with the app, engaged in value co-recovery by using the website and value co-protection by advising new customers to do the same.

Intensive data gathering: ‘data-nerdiness’

In the beginning of the interview with Irwin, before recording, a warm-up discussion took place, in which we introduced ourselves and talked about our interests. Irwin asked how the study was going at the time, and I told him how pleased I was about the fact that many Fitocracy members had agreed to help me by taking part in interviews. His response was the following:

“Maybe because you are more likely to meet nerds here than on any other site (laughing). They understand you.” (Irwin, as noted on the netnographic diary, 8/8/2018)

A number of different personality traits are commonly associated with terms such as ‘nerd’ or ‘geek’. According to Bednarek’s study (2012), as well as the English Oxford Dictionary (2018), nerdiness refers to high intelligence combined with an increased interest and level of knowledge of a very specific subject, often related to computers, technology, games or fantasy. Topics of discussion such as sci-fi, zombies, computer games and board games were commonly found in public groups on Fitocracy (Fitocracy 2018). Being a ‘nerd’ may also mean that a person demonstrates a difficulty in socialising, and is often unfit or not physically attractive (Bednarek 2012). The latter traits may indicate a contradiction for Fitocracy members who often socialised and cared for their physical appearance through engaging in regular physical activity. During the interviews and the group discussions, the term ‘nerd’ was used by some participants, or implied by others, and it normally referred to their interest in measuring their activities in as much detail as possible. Some participants described ‘data-nerdiness’ without using the term, but simply by expressing a high level of cognitive and behavioural engagement in gathering physical activity data:

“You know, you can’t change what you don’t measure and I am big at measuring every single thing. I have my Garmin activity going back decades (laughing)! So that was just another piece of it. And you know I spreadsheet my pounds and my PR’s every month and every quarter and blah blah blah. So, you know I don’t even know when I first found it (Fitocracy)? And I’ve been using it again consistently since last November.” (Helen)

“You know, I get tested, I am trying to put on muscle mass? And so, I get a DEXA scan every 8 weeks. So, knowing my total pounds lifted over every week and then searching those and kind of comparing that to...ok 240.000 pounds was 1,2 pounds of muscle over eight...you know...that kinda thing, the statistics of it.” (Helen)

Participants, such as Tony, used the term ‘data-nerd’ directly:

“I barely use the social side - most of my use here reflects a desire to continue appeasing my data-nerd side. I get a little charge, still, out of a new follower or some props from a different user that I don't know, but overall it's a minor add-on to my experience instead of the core.” (Tony)

For data-nerds, progression measurement through intensive data gathering was the main value co-creation process, and it appeared to be primarily positive. However, it seemed to co-inhibit value from engagement with other themes such as socialising or relationships, as these participants were lacking interest in such themes:

“As far as the data goes - nah [I don't participate in any groups to help appease my data-nerd side]. If I can get to a visualization of where I am over time, that's about all I need. :)” (Tony)

Consequently, there were positive and negative value creation processes associated with data-nerdiness. Future research could seek to identify the subtleties of these processes, and explore how people's interest in data gathering could be embraced to result in higher behavioural engagement with physical activity. Data-nerdy behaviour, however, could bear additional risks, not only to co-inhibit value creation, but also to co-destroy value:

“Excessive quantification: I began tracking my own workouts using an Excel spreadsheet that I'd designed in 2014. Within that spreadsheet I record daily workouts in an annual calendar worksheet. In another worksheet, I track the daily specifics of each workout (exercises performed, sets, reps, total volume). I log my work in between each set while performing the workout. I calculate the rep and volume totals after I've completed that day's workout. I gradually came to find logging each specific workout on Fitocracy after I'd already logged it on my own Excel spreadsheet to be both redundant and too time consuming. I have a lot of other things I want to do in my day (as do many other folks, I'm sure). For me personally, the tracking and quantification of workouts had simply begun to chew up too much of my own time.” (Scott)

Scott admitted that excessive engagement with data gathering had been compromising engagement with other important value creation and co-creation processes inside and outside of Fitocracy. He also appeared to have lost interest in tracking physical activity using multiple media, which was an indication of value co-destruction. From his response it can be assumed that he engaged in co-recovery of value creation, by reducing the extent of engagement with data gathering to a more reasonable level for him. There was no evidence, however, in regard to the impact this reduction could have on his engagement with physical activity, which might be of interest to future research.

Summary

As seen in the participants' accounts, activity tracking was a fundamental engagement process contributing to value creation. Emotional engagement appeared in the form of fulfilment through progression, which was a positive affective state. However, negative affect appeared as well, in the form of frustration and annoyance, when the customers faced usability issues, or fatigue and loss of interest from over quantifying physical activity, in the cases of data-nerdiness. Cognitive engagement is related to participants' reflections on activity tracking; they perceived it as a form of note taking or documenting their performed activity, which confirmed that the activity had been performed. It also served the visualisation and measurement of progression over time, which was positively received by most participants. However, cognitive engagement taken to an extreme level transformed into data-nerdiness, which could result in positive or negative value co-creation processes. As will be found in other parts of this analysis, sources of value destruction tended to become inhibitors of future value creation and co-creation, as they could reduce engagement with the relevant theme in the future. In this case, value destruction from over quantifying discouraged some customers from continuing to track their physical activity consistently, therefore it inhibited value co-creation.

Behavioural engagement varied among customers. Some preferred to prepare workouts beforehand, and track them as they are performing them; others preferred to begin reporting their activities when the session began and track as they exercise; others

preferred to report their activity on their computer, using the website after the session was complete. There were combinations of all the above, based on personal preferences and perceived convenience. For example, customers could create custom workouts or save workouts which had been logged after they were completed, and these would be pre-planned workouts for later sessions, which would be loaded and logged during exercise.

Positive value creation came from customer-provider and customer-integrated provider-provider direct interaction, through logging before, during, and/or after, watching and reading instructions of exercises, and accessing personal history, and, for paying customers, looking at statistics on progression metrics. When the above processes functioned smoothly, value co-creation was primarily positive. Value destruction and potential subsequent inhibition of future value co-creation occurred when there were bugs, for example when the system suddenly stopped working, exercises were missing or unclearly worded in the database, and there was a lack of provider's responsiveness to customers' complaints and error reports. Value recovery was evident among experienced participants who worked around usability issues and found creative solutions to address them. For example, when the exercise they really performed was not in the database, they found the closest possible exercise to report. When a customer who preferred on-the-go tracking found the app problematic, they might combine note taking with use of the website to help meet their preferences. Engaging in activity tracking on Fitocracy was automatically linked to engagement with gamification, as every reported activity was recompensed with game-like rewards. As Hawkins emphasised, "*while gamification is important it must act concurrently with the functional aspect of the app*" (2017, p. 61).

6.3 Theme 2: Gamification

Gamifying a health and fitness app is considered likely to increase its popularity and improve the evaluations it receives by customers (Huang et al. 2018). Despite previously expressed concerns (Robertson 2010; Bogost 2011; Seaborn & Fels 2015), recent studies have demonstrated that the mere addition of elements such as leaderboards, levels, digital or real-world rewards, and competition contributed to a

well-received health and fitness app (ibid.), while “*gamified interventions did directly support participants’ wellbeing*” (Johnson et al. 2016, p. 104), by providing an experience enjoyable for its own sake. The study sought to contribute to our current depth of understanding of gamification from the customers’ point of view. The participants talked about their emotional, cognitive and behavioural engagement with game design elements on the platform. These elements were part of the customer-provider as well as the customer-provider-customer interaction; the former have been characterised as primarily personal and the latter as social game elements. It should be noted that most personal game elements such as points could be viewed by other customers, which indicated that they had a social component as well. On the other hand, most social elements, were also related to individual efforts and activities, therefore involved a personal component as well.

Before analysing the participants’ accounts on gamification, it is necessary to understand what components comprised the gamification aspect of this system. Among the many approaches found in the literature of gamification (e.g. Werbach & Hunter 2012; Hamari et al. 2014; Seaborn & Fels 2015; Richter et al. 2015; Rapp 2017), game design elements have been categorised into two levels of abstraction, following Ferro’s (2018) approach. “*Game elements*” (ibid., p. 80) are those that the customer can view and interact with directly, and “*game mechanics*” (ibid., p. 80) represent the rationale behind each game element. The elements and mechanics have been named and described based on notes from the netnographic diary, as well as ideas drawn from previous authors (Ferro 2018, Werbach & Hunter 2012; Hamari et al. 2014). Table 6.2 presents the main game elements identified, their primary co-creator, a description, their primary nature and some key game mechanics.

Game elements	Primary co-creator	Description	Primary nature	Mechanics
Profile	Provider, customised by customer	A space where the customers can present themselves, including a picture, a chosen title and a brief description.	Personal, shared	Avatar
Points	Provider	The quantified value of all tracked activities.	Personal, shared	Progression, competition, feedback, reward
Progress bars	Provider	A bar indicating the distance between the current level and the next level, measured in points. Progress bars appeared after registering on the platform to indicate the percentage of completion of the customer's profile.	Personal, shared	Progression, feedback, avatar
Levels	Provider	A number which increases every time a predetermined number of points has been earned.	Personal, shared	Progression, competition, ranking, feedback, reward
Achievements	Provider, customised by customer	Recommended sets of activities, rewarded with badges.	Personal, shared	Challenge, learning
Quests	Provider, customised by customer	Recommended sets of activities, rewarded with badges and bonus points.	Personal, shared	Challenge, learning
Badges	Provider	Rewards appearing on the customer's profile page, earned when levelling up, or completing achievements and quests.	Personal, shared	Feedback, reward, progression, humour
PR (Personal Record)	Provider	A customer's best effort so far on a particular tracked activity.	Personal, shared	Progression, feedback, reward
Statistics	Provider	A visual presentation of a paying customer's performance so far on a particular tracked activity, or of all tracked activities together.	Personal, private (Hero only)	Progression, feedback
Leaderboards	Provider	A point-based ranking of all active customers, or a ranking of the customers participating in a challenge.	Social	Ranking, competition
Duels	Provider, customised by customer	One-to-one competitions based on a set of activities chosen among a given list. Duels have a specific duration, decided by the customers who initiate them.	Social	Challenge, competition, win and lose states
Challenges	Provider, customised by customer	Group competitions based on the same list of possible activities as the duels. Challenges have a specific duration, decided by the customers who initiate them.	Social	Challenge, competition, ranking
Tournaments	Customer, using provider's features	Group challenges initiated by customers who take the role of the administrator, often involving a narrative, consisted of a number of different duels leading to a final winner.	Social	Challenge, competition, ranking, creativity, narrative, humour
Narrative-based challenges	Customer, using provider's features	Group challenges which combine the provider's activity tracking and gamification features with customers' creativity. The narrative may be a creative addition to a simple public group challenge, or be more complex, last for several months at a time, and take place in private groups with limited spaces. It may involve engagement with other providers.	Social	Challenge, competition, ranking, creativity, narrative, humour
Props	Provider, customised by customer	A social interaction feature, known as 'likes' on other platforms. Props have been considered as game elements by authors, as they constitute a measured form of feedback between customers.	Social	Collaboration, feedback, reward
Virtual character (Fred)	Provider	A cartoon robot, who welcomes customers to the platform, appears to calculate the points of a workout, and is pictured on many of the badges.	Personal, shared	Aesthetics, humour

Table 6.2: Game elements on Fitocracy (based on Ferro 2018, Werbach & Hunter 2012; Hamari et al. 2014)

Making physical activity fun

Drawing from the field of game design, one of gamification's advantages has been considered its ability to make mundane activities more enjoyable (Jo Kim 2018). Indeed, participants reported that engaging with gamification inside or outside the borders of Fitocracy, generated emotions of amusement, enjoyment and interest:

“I think that gamification of things, whether it's the boards, whether it's having an internal contest with each other, the levels, it kind of...keeps me more engaged and makes it more fun [...] it just it makes it a little bit more interesting, it makes it a little bit more competitive but in a fun way, makes exercise a little less boring for me because I know that there's some people out there that love to exercise, where it's not necessarily one of my loves (laughing), so I like to eat and drink beer more than (laughing) I like to exercise. So, all these little things that kind of engage me more and they make exercise a little bit more interesting, I mean doing those obstacle course races...for me that's another like gamification for myself it just makes it fun like I'm working towards something out there that's going to keep me engaged and I need to get stronger, I need to get faster for that. So, it just makes exercise less mundane, keeps me a little bit more interested, makes my goals a little bit more interesting and real for me, so yeah, it allows me just to keep engaged in exercise a bit more.” (Lance)

As Lance explained, people have varying perceptions about physical activity, and some participants found it rather uninteresting by itself. For those who were willing to lead a healthy lifestyle, but found physical activity uninteresting, gamification seemed to help by giving them the missing element of fun and excitement. Similar reflections and emotions, however, were reported by participants who found physical activity inherently enjoyable:

“But then I started logging activities and receiving points and badges, and I thought "oh this is fun". I didn't join because of the game aspect or the

rewards, but they definitely add to my training [...] I like seeing my PRs in purple.” (Shauna)

The above evidence suggested that emotional and cognitive engagement with gamification could contribute positively to customer-provider and customer-provider-customer value co-creation. In turn, behavioural engagement in physical activity appeared to be influenced and encouraged.

Celebrating achievement

Equivalently to progression monitoring in the theme of activity tracking, a sense of progression appeared to be reinforced with gamification as well, as every tracked activity was given a value. As Brigham explained, *“the ability to track various daily interactions or activities at any time provides the opportunity of giving each action a value”* (Brigham 2015, p. 474). In a gamefully designed system, progression elements amplify customers’ achievements (Khaled 2015), and help them acknowledge and celebrate these achievements when they happen. On Fitocracy, receiving points and badges as rewards for customers’ effort, appeared to contribute to positive value creation. For participants, emotional and cognitive engagement with gamification could evoke feelings of fulfilment and pride:

“Like, I feel really good about making a PR on one of the big lifts like on a deadlift or on a squat, some of the more major lifts. You get a feeling of accomplishment that yeah! Look at me! I wasn’t able to do this two weeks ago but now through the programme I can do this, and so on. That is also really pushing your lifting as such.” (Irwin)

The fact that certain activities were considered as achievements and therefore celebrated, was sometimes unexpected for participants. Although there was clear guidance on the platform, on how to earn badges through completing specific quests or achievements, a member could still benefit from them, if they did not look at the instructions, and accidentally earned a badge. Their thoughts around the unpredictability of achievement and the feeling of pleasant surprise, contributed to positive value creation:

“I like getting the badges because they are like unexpected surprises and a permanent visual reminder of hitting certain milestones.” (Ken)

Ken’s account was consistent with Zichermann and Cunningham’s game mechanic of “*surprise and unexpected delight*” (2011, p. 85), which was experienced through Fitocracy’s way of celebrating smaller or larger achievements with badges. As points were the most frequent reward, earned immediately after tracking a workout, they received considerable attention from participants:

“I also like seeing how many points I get for a workout; I track as I go, and don't hit "end workout" until I am done stretching. I feel more satisfied with my workout if I get a certain amount of points for it.” (Shauna)

Emotions of pride and satisfaction were further enhanced with points. Celebrating achievement through engaging with game elements was a positive value creation process, under certain conditions, as will be seen in the next paragraphs.

Assessing the fairness of rewards

The main condition was the feeling that rewards were offered fairly across different types of activities. Participants tended to express positive thoughts about the fairness of badges. However, they often expressed their displeasure and disappointment with the way in which points were allocated. Most interviewees mentioned at some point that value co-destruction occurred through their cognitive and emotional engagement with gathering points, because they were seen as unfairly distributed between weight lifting and cardiovascular activities:

“It appears that Fitocracy is geared more towards people that lift weights or do strength training and I think that’s more of the fact of the points that you get for strength training exercises versus cardio exercises you are lifting weights, is what the thing’s like, I know there’s other people that have commented on that also.” (Olivia)

Others discussed the imbalances between bodybuilding and powerlifting, which both included weight lifting exercises:

“I can definitely see a bias towards powerlifting exercises being rewarded more points rather than let’s say regular body building things such as lateral raises [...]. There seems to be an emphasis upon military presses, bench press and squats and delts.” (Irwin)

Other participants pointed out that there was an unfair difference between bodyweight exercises as opposed to weight lifting:

“And I think the points should be a little different. (Bodyweight exercises don't get very many points compared to weightlifting exercises and most of what I do is bodyweight based, so that's one reason I stopped logging.)” (Jane)

Jane was one of the users who stopped engaging in activity tracking due to imbalances in the point system; in this case, engagement with points not only co-destroyed, but also co-inhibited future value creation. On the other hand, many participants engaged cognitively in value co-recovery, or did not engage in value destruction at all:

“But I suppose those of us who stuck with it made their peace with these issues.” (Collin)

Participants thought that the allocation of points could not be designed perfectly, while they were already pleased with this element, and did not think there was a significant reason to engage in negative thoughts or emotions:

“If you're hung up on how points are assigned (I'm not), then I could see issues there, as some things don't seem to get enough, some get too many. In my opinion, it's nearly impossible to quantify something like the numeric value of a workout, so I can't really complain. I find it fun and motivating to get a score for a workout, but I'm not going to cry over the fairness of the point system.” (Santo)

Finally, some participants had suggestions to offer to the provider:

“Sometimes the points value per exercise seems whacky. Maybe a more interactive way of adjusting those point values -- perhaps via mass surveys?” (Zack)

In summary, the evidence indicated that there were different engagement processes in the category of assessing the fairness of rewards. For some participants assessment resulted in overall negative value creation, while for others the overall value creation remained positive. All participants, acknowledged that imbalances were a problem, which highlighted the importance of providing rewards as fairly as possible according to the customers’ preferences rather than solely the providers’ judgement.

Planning workouts, setting goals, trying new exercises

In pursuit of new achievements to celebrate, as well as personal development and improvement of physical fitness, customers would often study the available achievements and quests, and plan their workouts accordingly:

“Sometimes I will log on to see what quests or badges I can earn when planning a fun Sunday workout.” (Sophia)

As many of the recommended activities included in quests and achievements were unfamiliar to customers, these game elements appeared to have a strong learning and exploration component:

“I don't always look at the badges and quests in advance, but some weekends it is fun to try something new and the badges and quests give me motivation and guidance as to what I could try.” (Sophia)

Many participants reported trying new exercises and challenging themselves, or even set personal goals according to quests and achievements:

*“*completing quests is a good way of trying different exercises.*

**the achievements are actually how I set my goals; I am currently gunning for my next strength badges!” (Shauna)*

This learning process evoked excitement among participants, and it appeared to influence behavioural engagement with physical activity as well:

“Early on there was lots of exciting things to discover, and the points and quests did really good in pushing me on to try new things, where I also discovered that lifting weights didn't suck (unlike running, running still sucks), so we got a home gym with dumbbells (and later barbell) setup. Even later, I've found quests to be motivating. Like sprint triathlon and 100k bike that I did a couple of years ago. Working on getting up to Olympic triathlon, maybe this summer.” (Harold)

However, possible value destruction in this category would occur when participants noticed a lack of updates in available recommended activities, and associated rewards:

“I was primarily doing running, pushups, and pullups and after a little while the points lost their value to me and I stopped logging in. About a year later, they launched a collaboration with Arnold Schwarzenegger and had also expanded badges and quests from when I used it previously. It was enough to get me interested again, so I started doing the Arnold workouts - first the bodyweight ones, and then the barbell ones with my limited barbell set. I also started trying out new exercises (like barbell squats) based on the quest system - trying to hit as many quests as possible.” (Mike)

The evidence again highlighted the importance of surprise and unpredictability in positive value creation. Mike explained that value co-recovery took place when he was informed about Fitocracy's collaboration with Arnold Schwarzenegger, which resulted in the addition of new badges to be earned.

Pushing personal limits

In some cases, setting new goals and learning new activities was taken to extreme levels. Participants set high goals for themselves and their friends, and tried to accomplish them, following the recommendations of gamified features:

“I mean, I got myself in shape to do a...I wanted to do every single hiking badge that was available. On one day! On one day, I wanted to get every single...my girlfriend and I decided to do it together. Because you know technically you can get every single hiking badge, if you do a 30-mile hike with a 50-pound pack and you do it underneath nine hours.” (Rowan)

Rowan talked about his experience of trying to earn as many badges as possible in a short period of time. His partner, whom he had met on Fitocracy, joined him in this attempt. In their case, engagement with game elements had an influence on customer-customer interaction in real life, when customers engaged in physical activity together. In Rowan’s example, earning badges was an interesting and exciting process, hence his cognitive and emotional engagement with quests, achievements, and their associated badges, influenced his behavioural choices in the area of physical activity. For Rowan, value creation was positive. However, in some cases, enthusiasm about earning rewards such as points, could have a negative impact on value creation:

“I fell into a trap of pursuing points, rather than listening to, and looking after, my body: I allowed the point value of different exercises to dictate the movements I used in workouts. On occasion this led to some unnecessary minor aches and injuries, as I would perform exercises that just didn't feel good simply because they'd been assigned a high point value. Instead of focusing on the really important numbers (total reps, total volume per workout), I became more concerned with getting more points per workout, and I was often doing that at the expense of my own physical well-being.” (Scott)

The latter illustrated that there was a possibility of over-engagement with game elements, particularly through chasing rewards, which could result in value destruction through excessive behavioural engagement with physical activity. As points were directly linked with activity tracking, and acted as a measure of effort and performance, Scott’s case could be linked to the phenomenon of ‘data-nerdiness’,

explained previously. Excessive data gathering could take the form of excessive gathering of points, and eventually constituted value co-inhibition.

Competition and fair play

Brigham explained that “*certain game elements of gamification take advantage of human competitiveness and the ambition to do better*” (Brigham 2015, p. 474).

Competition is a known game mechanic which implies that “*one player or group wins, and the other loses*” (Werbach & Hunter 2012, p. 79). When a Fitocracy member engaged in activity tracking, engagement in some form of competition was inevitable. For example, recently active customers would appear on the general leaderboard of Fitocracy, ranked according to their total number of points. Many participants admitted that they engaged in competition cognitively, emotionally and behaviourally, by checking their position on leaderboards:

“I am just competitive enough to want to see my points add up and compare myself to others. When I log a workout, I still check my standings in the “Leader” area of either the web site or the iOS app, to see if I have risen a little in the overall rankings. It’s profoundly silly, but so are many of the cathexes that motivate people.” (Derek)

However, competition through looking at leaderboards could lack interest for some participants, unless they were competing with people they already knew:

“It never did. The leaderboard has little meaning for me. I think it has too many random people which you have no association with. When I was in a father only group, then I would look to compare. But it was really the challenges that had more meaning.” (Floyd)

Floyd talked about the differences in his cognitive engagement with the general leaderboard, as opposed to challenge-specific leaderboards, in which he could see his performance in challenges he had chosen to participate in, comparing himself against customers with whom he interacted frequently, as they shared common interests. This highlights the importance of the social component of the platform in adding more

meaning to game design elements. Furthermore, it agrees with early opinions expressed by researchers about leaderboards: *“there’s nothing wrong with multiple leaderboards measuring different things or leaderboards that aren’t universal for all participants.”* (Werbach & Hunter 2012, p. 77). The authors suggested that different types of leaderboards could be provided, and that customers could choose to engage with the ones most relevant to them. Other participants talked about their engagement in competition through intentionally joining challenges or duels:

“I like the “challenges” aspect and competing against myself (and others). Right now, I’m in a year-long challenge and I’ve been given the challenge of getting 300,000 points in a year. Lofty goal, and I’m WAY behind, so I find when I have the option, I choose stuff like the rowing machine for cardio because it gives more points.” (Caren)

“I accepted a duel once and it was fun. Exhausting but fun!” (Wendy)

Wendy’s behavioural engagement with duels evidently generated excitement which is frequently found among *“gamification emotions”* (Robson et al. 2016, p. 30). Both Caren and Wendy seemed willing to engage in physical activity to the required level for achieving a *“win state”* (Werbach & Hunter 2012, p. 79). Competition, however, seemed to follow certain rules, the most fundamental of which was honest self-reporting. If there was a suspicion customers consistently cheated in their activity tracking to win a competition unfairly, this could cause major value destruction for other customers:

“And [I know] a guy who left because of people cheating on points in challenges.” (Santo)

This is consistent with the first definition of gamification from a service-marketing perspective, according to which Fitocracy functions as *“a rules-based service system”*, which aims *“to facilitate and support the users’ overall value creation”* (Huotari & Hamari 2012). As would happen in a full-fledged game, breaking the rules of a gamified system is expected to have a negative impact on value creation, as it inhibited

future value co-creation when customers decided to leave the platform. Besides, honesty in self-reporting was valued highly in the community, because the tracked workouts were shared and celebrated:

“Personally I have not cheated as I prefer to feel real joy in achieving my personal records and share that with the Fitocracy community.” (Sophia)

For social marketing, the importance of honest self-reporting is twofold. On the one hand, if activity tracking apps are used in an intervention, the provider may wish to observe participants’ activity over time, and dishonest self-reporting could lead to misleading findings. On the other hand, it is important for the community, as shown in the participants’ accounts. This is consistent with previous studies on online communities built around online games. Kiesler et al. (2012) spoke about *“the cheats that occur in many multiplayer online games that allow one player to gain advantage over other players, while polluting the experience for other players”* (p. 130). On the gamified system of Fitocracy, dishonest self-reporting was the equivalent of game cheats in games. Consequently, a gamified platform may not be a full-fledged game, but compliance to the rules of fair play is equally important.

Changes over time

Customer engagement in value co-creation processes of online environments is known to fluctuate and often fade over time (Brodie et al. 2013), while equivalent fluctuations have been found in gamified systems as well (Rapp 2015; Lerch et al. 2018). While fluctuations in engagement could happen in all the themes, due to life circumstances, distractions, or changes in motivation (see Chapter 7), change was a prevalent topic of discussion in the theme of gamification. This can be attributed to the customers’ gradually gaining or losing interest in game elements, or to the fact that the game elements from the providers’ side were a feature that was changing or was expected to change, while other features were more stable. On Fitocracy, engagement with activity tracking was automatically linked to gamification, as every activity was rewarded with points, frequently leading to levelling up. Often, a customer completed an achievement or a quest accidentally, by performing and tracking activities that were rewarded as

such. This may mean that observed behavioural engagement alone, would not offer sufficient depth of understanding of customers' changes in engagement with gamification, particularly in terms of its cognitive and emotional dimensions. Through interviews and discussion groups, however, light was shed to some details of these processes. Participants mentioned that gamification might appear 'silly' or 'gimmicky' in the beginning:

"I had known about Fitocracy for a little while because of 4chan /fit/ but didn't join because I thought it was silly. But I decided to make an account in early 2013 because a youtuber I liked at the time was talking about it and how to follow his routine on Fitocracy." (Thad)

The above is important in the design or choice of a gamified system for a physical activity intervention, as it is consistent with a previously expressed concern: *"the biggest complaint concerns Gamification being too childish"* (Augustin et al. 2016, p. 12). In Thad's case, cognitive engagement became more positive after the platform had been recommended by a trusted user with whom he interacted through another provider (customer - other provider -non-customer interaction). Another participant explained that he gradually became more positive and enjoyed the fact that levelling up required an increasing amount of points, as customers progressed towards more advanced levels:

"The levelling and points seemed gimmicky at first. But it's grown on me. I like how the rate of progress slows as one levels up -- deludes me into thinking I've matured and is more challenging." (Zack)

However, many participants seemed to experience value destruction as levelling up was perceived as too frequent in the beginning, and later it became too scarce:

"Well, there was a degree of fun to be had from that and some motivation to be derived from it, though that was usually short-lived. Levelling up, for example, came too easy in the beginning. Then there was a time when there was a degree of motivation to wanting to level up while being able to make

out a connection between the workout I do today and levelling up ("if I get off my ass now and get a solid run in, and hit the gym tomorrow, then the tourney on the weekend should mean I reach the next level!"). But now it's a long-distance kind of thing - going from reaching my current level to my next one would put me from zero to level 30 or so...it's just putting in the work (and logging it) which will get you there...eventually." (Collin)

For some participants, after a long time of participation and activity tracking, levelling up became scarcer but did not influence their value co-creation derived from celebrating achievement:

"I still get a charge out of a level up message, even though they are like a million points apart at this point. :)" (Tony)

"It's all about levelling up. Even though It's only happening once a year now that I'm in the high 40s. But it's lovely to have people congratulate you on your achievements." (Wendy)

For advanced customers, besides levelling up, badges became scarcer as well. Behavioural engagement with activity tracking continued, while a large part of cognitive engagement with gamification was limited to points or turned towards activity tracking:

"When I first started Fitocracy, as I was adding different activities into my workouts and tracking them, uhm you got badges a lot just because you were doing stuff that hadn't been recorded before. But then as you keep logging your workouts and doing your routines, you don't necessarily get as many badges and then it also...as you move through the levels when you start getting into the higher levels it takes more points to achieve the next level. So, moving through the levels early on was a lot easier because you didn't need as many points to move up a level. So I guess I don't really focus on the badges necessarily because at first it was kind of fun to figure out what do I need to do to get an extra badge but now I short of...I am just

doing it more for tracking my workouts and trying to do better than the last time and then I actually I just, I think I am...I try to...points are more important to me than the badges. I guess.” (Olivia)

As it became apparent previously, points were an important measure of progress. Indeed, points appeared to maintain a consistent level of cognitive engagement in comparison to other game design elements, which is demonstrated in Olivia’s response above.

Similarly to an issue raised in Theme 1, during the plateau phase, when the data collection took place, the customers rarely noticed any updates or repairs of functionality issues from the provider’s side. This evoked disappointment and annoyance as in Theme 1, with the added problem of lack of surprise; an aspect of gamification which appeared essential to many participants:

“Current quests and challenges are starting to feel a bit old to me, so I’m kind of hoping for some new ones.” (Harold)

“[Gamification] that was great for the first three or four years. Now I’m pretty much done. In fact, I was thinking, if somebody ever takes an active role in...to do something with Fitocracy, I would love to see them reset, especially those challenges maybe or challenges and badges, they need to be reset.” (Rowan)

Rowan suggested that some challenges were interesting to accomplish, but offered a reward once, and if a user completed the challenge again, they would not earn a reward the second time:

“At least I’d like to see them reset it. Reset it every year so that you can do challenges more than just once, and at least get credit for it.” (Rowan)

For the same reason, many participants decided to restart; to create new profiles starting from level 0, in order to get rewarded again for repeating the same combinations of activities. Sophia made some recommendations for improvement, based on these issues:

“I'd add some incentives to stay at the higher levels rather than restarting. Maybe special quests or badges. I'd make more quests.” (Sophia)

Sophia’s behaviour contributed to value co-recovery, as she could maintain engagement with gamification in a way which involved positive value creation.

Customer-generated gamification

According to examples presented by participants, customers frequently became the protagonists and main value co-creators, by using the provider’s activity tracking and gamification features in their own creative ways. The first example was about groups that organised tournaments. I had the opportunity to interview one of the administrators of such a group, Floyd, who sent me an invitation to join and explained how a tournament worked:

“Invited you to the group. Just a friendly tournament to keep things motivated. :)” (Floyd)

There was normally one qualifying round, which was set up as a group challenge, based on the provider’s feature. Afterwards, there were some duels planned, for example between the top 16 winners of the challenge, and after consecutive duels there would be one finalist:

“Generally, there's a qualifying round, to get to the Top 16. Then it gets into a tournament format where you pair off and duel. Single elimination until you get a winner. :)” (Floyd)

The administrator discussed with the members of the group continuously and let them choose and vote for their preferred terms of the next tournament (netnographic diary 12/09/2018). When Floyd was asked about the responsibilities of a tournament administrator, he replied:

“There's no official responsibility. But we have a few Admins for the group that keep it going and every admin has a different way of organising it. This group has been going for 3-5 years or so. As an admin, you can create

the challenges for the group, but it's up to the members to setup the duels.”
(Floyd)

It appeared that many customers engaged in organising tournaments. This is an example of customer-generated gamification, which acted as a value co-creation process and was generally well received and long lasting. Another example were the narrative-based challenges, in which customers used the provider's challenge feature, and added their own creativity to the extent that the final outcome would move far beyond the provider's original intentions for the feature. Narratives would include known themes such as the 'Lord of the Rings' in the group 'One does simply walk into Mordor', which was linked with another provider who organised 'the Eowyn challenge'; a challenge which encouraged customers to walk several miles in a fantasy adventure, to try and keep and finally destroy the magic rings:

“But I do join some groups for group challenges. And even run one (One does simply walk into Mordor). One of my favorite ones were when Rowan had time to run fun Viking challenges.” (Harold)

“The Eowyn challenge was making the rounds around the internet, and I thought this would make for a nice group here. [...] Yeah, it is a very individual challenge. It made the rounds on the internet when the movies were coming out.” (Harold)

Another known narrative-based challenge, which involved high customisation and resembled a text-based role-playing game, was hosted in the 'zoinx' group, a private group with limited places. This complex type of customer-generated gamification would be managed by advanced customers, highly involved in customer-provider, customer-provider-customer, customer-other provider, and customer-other provider-customer interactions. I interviewed one of the chief story tellers and leaders of the group:

“And Zoinx has since then been my favourite group ever. And that's one of the things that kind of keeps me in it. And it's a zombie apocalypse workout

group? Which is kind of funny in of itself. It's one of those things that if I try to explain to a friend, it's like 'Uh! I can't explain this to you, you'll think I'm weird!' But basically it's like a group within Fitocracy and we use Fitocracy but we also use...you know Google...Google documents, Excel files basically on Google that you can get to from anywhere, we use a program called 'Inklewriter', which is basically a 'choose your own adventure' type of thing where you can write your story and then along the way you can make choices". (Mary)

Mary inherited the role of the chief story teller when one of the previous group leaders left the platform. She reported feeling amazed when she first engaged with the group, and that she was now enthusiastic about being a story teller, as she derived amusement, enjoyment and mirth from it. She explained that the writers and the group members interacted with multiple providers besides Fitocracy, all creatively combined to build a value co-creation process which appeared to contribute to a great extent to its members' positive value creation. Mary explained how story-telling worked:

"You walk into a room and you take the door on the right or the door on the left. 'Oh! You took the door on the left! Ooh there are zombies! You have to go running for half a mile to get away from them' or whatever. It is how the stories work. You make these choices in the stories and then it keeps you with exercise assignments based on what you chose." (Mary)

Mary completed her description by explaining that the group was subdivided into smaller groups of different interests; running, weight lifting and yoga were a few examples. She explained that each subgroup had a monthly challenge, and a number of optional activities to choose from. Mary's account provided an example of customer-generated, value co-creation, which was part of many interaction categories; customer-provider, customer-provider-customer, customer-other provider, and customer-other provider-customer interaction. It did not only constitute value co-creation, but co-recovery as well, for experienced and advanced participants who had exhausted the game elements of the system and were looking for something different, as Mary

reported. Among participants' responses, there were no examples of negative value creation in the category of customer-generated gamification.

Despite the number of studies on Fitocracy and other gamified platforms for physical activity, customer-generated gamification in this form has not been found previously in the literature. It is consistent with Nicholson's (2012) idea of 'player-generated content', which however, refers to providing elements which can be customised by users, and allow them to create their own goals. The feature of 'challenges' on Fitocracy suits this description. The level of customisation and integration of features and providers involved in groups such as 'Zoinx' has not yet been reported.

Prioritising personal goals, preferences and circumstances over gamification

From participants' accounts, it was understood that they often engaged, mainly at a cognitive level, in prioritising between the available rewards to be earned, competitions to participate in and their own fitness goals, personal preferences or even circumstances such as injuries or disabilities. The latter would always be prioritised over gamification, which would mean that the participants used the available game elements according to their priorities:

“When I first encountered quests (realized they existed) I did lots of them for a few weeks...And then I'd pretty much done the ones that were within reach and the ones I was interested in that took a bit of reaching...And have rarely looked back. I do still want to get to "I prefer being off the ground", but that's still going to take a while...And if I hadn't come to the conclusion that lats make me look a lot better, I'm sure I wouldn't be doing pull-ups anymore, no matter what you call that achievement.” (Collin)

Some participants explained that they preferred using activity tracking features, as well as personal rather than social game elements, as their progression was more important to them than any form of competition with others:

“I compete with myself, so I don't really take part in the challenges or duels. I follow a somewhat structured training routine, and taking part in

challenges or duels would probably mean messing with that routine.”

(Santo)

When participants talked about the importance of game-like rewards to them, they often revealed that cognitive and behavioural engagement with their physical health as well as their personal physical activity preferences and fitness goals were more important than engagement with gamification:

“But you know if I get a badge for doing something, it’s kind of just an extra benefit but I’m not really trying to get any badges, and I haven’t really done any duels or challenges with particular people because I’m still working on some injuries, and I just...there’s some things that I just can’t do.” (Olivia)

In Olivia’s case, engaging in recovery from injury could be a process of inhibition and co-inhibition of value in engagement with physical activity, activity tracking and gamification. As a result, healing became a priority in order to minimise this inhibitor, as well as to avoid it becoming a reason of value destruction.

Summary

Engagement with gamification was situated primarily within the area of customer-provider and customer provider-customer interaction, in the gamified joint sphere. Firstly, participants engaged in gamification in an effort to make physical activity fun (Jo Kim 2018). This led to value co-creation, as well as co-protection from loss of interest in physical activity. Furthermore, engaging in celebrating achievements (Khaled 2015) was a process of value co-creation, provided that customer’s engagement with assessment of the fairness of rewards was positive as well. When rewards were considered unfair, value co-destruction occurred, although many participants reported co-recovering value by thinking that a compromise would be a better choice. In addition, participants engaged with points, quests, achievements, and their associated badges in a cognitive way before engaging in physical activity. Through this cognitive engagement, they planned their workouts, set personal goals and decided to try new activities or levels of activity not previously attempted, with a

view to gain game-like rewards. This was a positive value creation process, which could become negative when regular updating from the providers' side was absent. By engaging with the pursuit of rewards, sometimes participants pushed their personal limits by challenging themselves to a higher level. The latter would begin as a value co-creation process but the risk of value co-destruction was high, as participants might neglect their health and well-being by over exercising.

Competition was evident throughout the platform (Werbach & Hunter 2012; Brigham 2015; Kiesler et al. 2012), due to the measurement of effort and performance, and to the engagement with inherently competitive game elements, such as duels and challenges. Value co-creation and positive affect were reported. However, honest self-reporting was an unwritten rule in this category; when broken, it could lead to major value co-destruction and co-inhibition of future value creation, as some customers ceased engagement. Changes in the frequency of game-like rewards and game elements could change value creation from positive to negative. Value co-recovery processes included restarting with a new account. An additional way of co-recovering value, and generally enhancing positive value creation was customer-generated gamification. From organising tournaments, to making text-based stories, customers demonstrated remarkable levels of creativity in this category. Finally, participants co-protected value by ensuring that their personal priorities were being followed. When gamification was compatible with, and served the fulfilment of these priorities, they engaged with it more and allowed themselves to acquire the benefits.

6.4 Theme 3: Socialising

Socialising was a major theme of engagement among those that emerged from the data. Its prominence is consistent with literature in the area of gamification for physical activity (Hamari & Koivisto 2015), and health and wellbeing (Johnson et al. 2016), which highlighted the significance of the social components of such gamified systems. 'Socialising' is considered any reported human interaction, mediated or non-mediated, involving Fitocracy customers, situated within the external joint sphere, the gamified system joint sphere, or the customer sphere. The following paragraphs provide an overview and analysis of my discussions with participants about these interactions.

Emotional support

Online social gatherings have long been considered as sources of emotional comfort and support (Lin & Bhattacharjee 2009). In social marketing, according to Zainuddin et al. (2017, p. 361), people interacting in online environments can develop “support” mechanisms which facilitate engagement with physical activity. On Fitocracy, emotional support was evident throughout customers’ interactions and, although physical activity was an area of focus, support would extend beyond it and cover people’s need to share their daily challenges, and find sympathy and compassion:

“Just talking, exchanging experiences, etc. Very helpful just speaking to some others going through similar things. [...] Yeah, and in private messages from people I got to know there.” (Harold)

Harold explained that engaging in emotional support could sometimes require the use of private messaging. Zoey reported that she opened an account with another provider to be able to connect with Fitocracy customers privately:

“For a few years during my residency of being active on Fito, I signed up for a KIK account, and was able to privately connect with hundreds of users. They all had their own stories, and I try to encourage them and be a good friend by listening, emphasizing, and really just being present. I think that's what most people needed.” (Zoey)

Emotional support in physical activity would normally be related to struggles such as pain, or injury:

“It definitely comes in handy when you’ve got people there that can understand, just saying the same thing you are saying to me now like I hope you get better quick like don’t worry it will, so it’s nice to have that kind of positive reinforcement when you’re feeling down on yourself and you feel like you’re taking a step back, so it’s actually valuable so it definitely does help.” (Lance)

Lance experienced a minor injury while exercising, which led to value destruction and future value inhibition. At the time when he was in a negative affective state, discussions with other customers appeared to help him feel hope, optimism and relief, and played a part in value co-recovery, while his physical recovery was taking place. In some cases, support through more serious physical or mental health challenges attracted a high level of emotional and behavioural engagement from many customers:

“God forbid you ever have something go wrong or get ill, these people will rise up and support. If you have never looked @Martha or her fan page, you should. She was the best of us and the community loved her. I never knew her or got to interact, but between the posts and the outreach of the community, you knew you had missed a special soul. So, it was no brainer to want to help when the community asked.” (Raymond)

Raymond referred to a customer who had extensively received and offered emotional support to the point of being loved by other customers. In addition, customers’ expression of compassion would often extend beyond Fitocracy:

“There are people on Fito who donated from overseas when I was doing a charity walk for a local cancer hospital. [...] The vast majority of people I have come across are genuine and caring.” (Sophia)

Sophia gave the example of a charity event that she participated in, and invited customers to support her cause financially. In our conversation, she mentioned this example to argue that one could find a compassionate, caring and supportive environment on Fitocracy. Emotional support appeared to be an overall positive value creation process.

Empowerment

In Zainuddin et al. (2017, p. 361) “*encouragement*” online was found to facilitate value creation through physical activity. In order to describe a similar category emerging from Fitocracy, I chose the word ‘empowerment’ instead, in order to encapsulate two dimensions: Firstly, customers encouraged each other to maintain

physical activity. Secondly, they boosted each other's confidence at every opportunity. In one of the discussion groups, I shared with participants my initial ideas about the role of socialising. Jane corrected me, and distinguished empowerment from emotional support by referring to the former as 'motivational support':

"I think there's an additional aspect...it's not quite emotional support or knowing that people are around, but more motivational support?" (Jane)

Other participants in the group agreed with Jane that this was a separate type of support. I soon discovered that the simplest and most frequent form of empowerment was the act of 'propping'. Props were the equivalent of Facebook's 'likes', and they have also been viewed as game elements (Hamari & Koivisto 2015). Irwin explained that props were inherited from the hip hop culture:

"Well, a prop is pretty much a high five. [...] That's how I see it, it's like positive encouragement. Props come from hip hop language, to my knowledge." (Irwin)

Props were well received and led to positive affect for receivers:

"Props are a nice thing to see, to show that people have looked at your activities or posts, though it's perhaps not so personal as when people actually comment and you can see some more personal feedback or encouragement." (Marcel)

One step further, was the act of propping and commenting with an intention to empower:

"As comments on work-outs it's usually just a long-form "prop" à la "wow, that was a quick 10-miler" or "good grief, you're benching my body weight". Sometimes it includes supportive statements on other issues in case reference was made to such by the person posting a workout in the notes ("so hard to get myself into the gym today, and only managed about half of a proper workout" may lead to a response of "you are ahead, by

everything you managed today, of the thousands of people who also felt it was hard today and didn't show up because of it. You rock!").” (Collin)

Collin explained how empowerment through props and compliments could help transition from disappointment and frustration to hope and optimism. However, Derek and Thad expressed their concerns about excessive ‘cheerleading’, as they felt that many customers would seek continuous empowerment and neglect putting sufficient effort into their behavioural engagement with physical activity:

“I had assumed for years that what the world needed more of "up with people" cheerleading. But it wasn't working as well as I expected. As Thad said: "constant whining without trying to change things." I saw it over and over and over. It got harder and harder to welcome newcomers because I wondered if I was expending my cheerleading energy on people who couldn't make good use of it.” (Derek)

Derek suggested that, although empowerment could lead to a positive affect for the receiver, it could keep them from engaging in learning and self-development, or engaging with physical activity above their current comfort level. In addition, it could be frustrating for the customer who offered empowerment. Thus, on the one hand, there was co-inhibition of value for the receiver, on the other hand, for ‘cheerleading’ customers such as Derek, value co-destruction. Finally, there was a tendency among women to empower each other:

“I find I actually gravitate more towards women. Encouraging them and uplifting them. I go out of my way to say nice things to them and respond to their efforts to share. To me, making a woman feel better about herself is more meaningful than getting attention from guys. I think women are much harder on themselves, especially in the fitness community. So to get good feedback on their hard work goes a long way.” (Zoey)

Zoey explained that women in the fitness community were considered more vulnerable to negative affect and its associated emotions. Her opinion was expressed by other

female participants as well. As she was frequently engaging in empowerment, she focused her attention to women because of this belief.

Sharing interests

As Ridings and Gefen (2004) pointed out, one of the reasons for people to join online social gatherings is the existence of common interests and hobbies. Indeed, finding other customers to share common interests, ranging from science fiction books and board games, to pole dancing and gymnastics, was a process of value co-creation which attracted emotional, cognitive and behavioural engagement among participants:

“Yes, there are a few other dancers, former dancers and I know of at least one ice skater. And some who post their social dancing and dance classes, too. One Fito that I follow is @Petri, she posts a lot of gymnastics and pole dancing workouts. I have total respect for anyone who can perform those routines as their strength is absolutely incredible.” (Olivia)

Olivia talked about value co-creation in socialising with groups of dancers, in which she found people she admired and drew inspiration from. Another example, was the group interested in steel combat:

“We were only sharing our workouts, mostly as a means of convincing those who had put themselves in charge of selecting the team that would go to Battle of the Nations (the steel combat World Championship, if you will) that we were serious about this.” (Collin)

In Collin’s example, the group was not simply sharing a common interest, but training intensively to participate in a competition. The same happened in groups of other interests, such as powerlifting, where the founders of Fitocracy participated as well, cycling and running, and it contributed to value co-creation. However, some cases of interest sharing via public posts could cause annoyance to other customers:

“Oh [I don’t like it] when people start sharing their political views or opinions about things that aren’t relevant to what the purpose of Fitocracy is. There are other places you can go to do those things.” (Santo)

As Santo explained, value co-destruction could occur when he read through his feed or the feed of a public group, and saw a post or a discussion about politics. The same could happen with any topic a customer might consider irrelevant and out of context for the discussions of Fitocracy. Customers such as Raymond engaged in value co-recovery and co-protection by participating in a private group where members were free to discuss any topic:

“I am not sure about a typical private group involves, the one I am on is just random musings. A place where you can post anything without a theme. I got involved when I was part of a larger group and there was some public disagreements among the members about some of the random posts. It got a little contentious and some of them started a private group where they could just be random. I think they invited me out of the old group because I had liked some of the random posts. I will check in there as it is a smaller group that I know much better and feel comfortable with and you can be a little more edgy with comments. I am socially awkward and agonize over making inadvertent creepy comments. I don't worry much there as they will just call me out and I have been around long enough with them where they don't think one comment makes me a creep.” (Raymond)

Raymond expressed his anxiety about socialising and his worry of being judged for his posts on public groups. Therefore, to keep those feelings from co-inhibiting value from socialising, he engaged in value co-recovery for himself as well as for customers inside and outside of the private group, by joining and participating in it. Raymond felt contentment and relief due to the existence of that group.

Questions, answers and knowledge negotiation

Online social gatherings are acknowledged as a rich source of information and knowledge (Ridings & Gefen 2004; Chiu et al. 2006), with the unique characteristic that *“most of their content is member-generated, as opposed to other Internet information which is typically provided by the site provider”* (Ridings & Gefen 2004). On Fitocracy, a large part of socialising was dedicated to the pursuit of knowledge,

primarily pertaining to physical activity, and often nutrition or other topics. Participants reported asking and responding to questions, or reading other customers' questions and answers. Often, there would be more than one opinions on the same matter and there was an atmosphere of healthy debate and respectful exchange of ideas. Knowledge negotiation could take place through private messages, through posts on personal profiles or groups, comments under posts, and comments under uploaded workouts:

"I also see a lot of posts asking what certain exercises are, or how to do something. This is a great forum for that type of interaction and from what I have seen so far, most people are pleasant and supportive in their responses." (Olivia)

Olivia reported that asking a question was normally a value co-creation process, associated with positive affect. Santo's report was consistent with the above and he mentioned that on Fitocracy there were athletes and people experienced in physical activity who gave well-informed responses:

"There are a lot of good athletes here to learn from. People often ask questions and get answers from others with more experience than them. Not just athletics either. I learn things from the healthy eating group for example." (Santo)

The evidence is consistent with Ridings and Gefen's (2004) idea that in order to develop an active online community, the use of "'experts' in a particular area to interact with community members" is recommended. On Fitocracy, these would be primarily customers who were experienced athletes or fitness professionals. Knowledge negotiation often took place in groups, where the topic of discussion would be relevant to a specific topic of interest:

"I think it's the personal element with groups. It's not 'I googled 'best shoulder workout' and this one popped up.' it's 'I asked a group of strong

people about shoulder workouts and this is what they said, and I could ask questions that Google couldn't easily answer." (Mike)

As demonstrated in Mike's account, knowledge negotiation could be a powerful, living source of information, as it enabled many voices to be heard, coming from customers with substantial experience. Some knowledgeable customers provided links to other providers, or to online sources that they had created themselves. Customers who were looking for knowledge could follow those links and read the content. Furthermore, they tended to do research online and read content from multiple providers:

"But I read a lot I...there's a few people on Fitocracy that have their own blogs and articles and I read their stuff but I try to just kind of read things that pop up on my feed, on my Facebook or my e-mail that look interesting, and I think I'm just smart enough to know when something seems like it's really not accurate or not or things like that." (Olivia)

Olivia was interested in searching for knowledge through multiple platforms, and she demonstrated optimism and pride of her skills to recognise which ones were the most accurate. Therefore, knowledge negotiation could occur inside one customer's mind upon cognitive and behavioural engagement with other providers' content. She could then contribute back to Fitocracy's knowledge negotiation. Disputes about the most accurate opinions among customers engaging in knowledge negotiation were normal and expected:

"I mean I can imagine that this type of dispute would be very respectful, like I disagree, there's a research on this, but according to this study blah blah blah. I think it would be more of this type of discussion, because I think that as an app it appeals more to research and academic minds, people who like stats and numbers and things like that, but who also like to communicate. And I think that with that target audience, that's the type of discussions that you get." (Irwin)

As Irwin pointed out, most disputes pertaining to knowledge negotiation took the form of respectful disagreement. Consequently, knowledge negotiation was primarily a

positive value creation process, which took place in the customer-provider-customer area, and extended towards customer-other provider interactions as well.

Embracing diversity – ‘no homo’

It has become apparent that Fitocracy customers had a variety of interests. Heterogeneity was one of the criteria for the selection of the site for the study, as explained in the methodology chapter. Apart from various interests, participants demonstrated a variety of backgrounds, age groups, locations, experiences, fitness levels and ways of socialising:

“Motivating followers who would prop you and comment on your workouts. Dog lovers who will happily chat with you about your fur ones. There are a lot of people here who will reach out to you when you need them :)” (Wendy)

Wendy reflected on her engagement with socialising, and seemed to be in a positive affective state towards the diversity of people on Fitocracy. Similarly, many participants appeared positive towards diversity:

“To an outsider, Fitocrats may look like a bunch of tables in the high school cafeteria...you have your jocks, nerds, band geeks, yady yady yada. On Fito, those groups tend to overlap. What the different "tables" are if you will are the different sports/activities you do or train in. You have your powerlifters, strongmen, body builders, runners, climbers, sport players, dancers, the people just trying to get fit and live longer, etc. For the most part we all get along...every once in a while there'll be something that divides everyone, but those are few and far between. Especially since the main tenants of fitness -- strength, stamina, balance, and agility -- are common in everything people are training for.” (Caren)

Caren explained that Fitocracy customers could have different personalities, as well as physical activity preferences, and she considered her engagement with socialising overall positive, with a minor risk of value co-destruction from rare disputes.

Participants reported embracing diversity and learning from each other, sometimes adopting new types of physical activity:

“Diversity is one of the great things about Fito. I had never really considered lifting seriously before joining here, and I think it's partly because on most other fitness forums, the weights room seems to be the domain of (predominantly white) males, and I didn't recognise this as a community I could join. Within days of joining here, I started interacting with some amazing lady lifters from all over the world, and I suddenly wanted to join them and be part of the lifting community. I haven't looked back!” (Shauna)

Shauna’s engagement with socialising involved embracing diversity to a great extent; to the point of shifting her own interests to different directions. This was described as a positive value creation process. Diversity was protected in the customer-provider-customer area by the community moderator, but most of the time her interference in diversity issues was unnecessary. The only issue that emerged from participants’ accounts was that some customers’ attitude towards sensitive issues of gender identity and sexual orientation was at times ambiguous; certain expressions and jokes could be misinterpreted, with the most prevalent example being the phrase ‘no homo’:

“In early 2013 when I began socializing on Fitocracy, the phrase 'no homo' was still in common use among men to indicate things like "I really like your workouts but I'm not complimenting you because I'm gay." It was pretty clear, from the start, that some of that usage was self-mocking, from straight guys who were definitely not homophobic, who already knew each other as not being gay, who were comfortable complimenting each other and even flirting, and who were using the phrase just because giving too much reassurance about not being gay can look a little silly. Problem was, other guys seemed to be using it much more in that self-protective, "don't take this the wrong way" sense. So, there was a dual challenge to that: I had never seen so many men who were comfortable around each other and

not really worrying about who was or wasn't gay, but there was still that question about "okay, but I AM pretty gay, what happens if I join in?"

(Derek)

When Derek was a new customer, his engagement with socialising involved emotions of nervousness and worry. The expression 'no homo' accompanied many comments of empowerment, when they included some form of compliment between people of the same gender identity. The phrase was initially intended to be used respectfully to clarify that a compliment was purely friendly and fitness-related. However, it could be misinterpreted and inhibit value (co-)creation for members of the LGBTQ community. Derek later explained that once he became an experienced customer, he engaged in socialising frequently, overcame his negative emotions, and reading phrases such as 'no homo' no longer led to value co-destruction or co-inhibition. Another example of value co-destruction, was when customers became protective of LGBTQ rights in the community, as part of their positive attitude towards diversity. This could lead to heated discussions:

"Anything is acceptable, its whatever ppl want to post. Because of that yes that are often disputes, ppl feelings get hurt, etc. the last "fight" I got into was on my personal post in the main page about transgender ppl competing in powerlifting. Topics like that hit nerves and are personal to some members." (Janiya)

Janiya was one of the most advanced customers among my interviewees, and she was mentioned by other participants as one of the oldest members of Fitocracy. She once raised the question, whether it was fair or unfair when women and transgender women competed in the same category in powerlifting competitions. Other customers felt irritated and insulted, and a dispute was triggered under her post:

"My post was that I was in opposition to a transgender athlete competing with me after having converted to a woman from a man. I asked if anyone had done research on the topic and their thoughts, some active LGBTQ community members got really upset at me about the post, calling it

insensitive. It ultimately didn't turn into anything productive, and my position that my opposition came from the physical strength that men develop from an earlier age despite being transgender would translate on the platform and they would have an unfair advantage. The members opposing me kept going back to emotions. Besides a post like mine, every now and then there will be touchy posts around Fito.” (Janiya)

Janiya’s account provided an example of how written speech could be misinterpreted and lead to value co-destruction. In an online community which strives to welcome diverse groups of people, perhaps discussions around sensitive issues could compromise this goal.

Mass niceness and brutal honesty - why bros are not welcome

As explained in the previous chapter, when Fitocracy transitioned from its early phase to the peak phase, in 2012, participants reported that a culture shift occurred, as part of the provider’s effort to create an inclusive and welcoming platform. In order to avoid getting banned by the moderator, customers carrying the 4chan culture migrated into private groups and later moved to different providers’ platforms. A well-known private group was called ‘Sandbox’, and its members’ mentality was described by Thad:

“We were not polite, it's hard to explain but we were always brutally honest with each other with no filter. And if you were sensitive in any way you were quickly weeded out. But let’s say you did post something, you would def. get bashed, but you would get legitimate advice at the same time that really worked. A lot of people in that group were competitors and trainers, they knew what they were doing and they helped each other. There is a saying on /fit/ "We're all gonna make it Brah" as harsh as we are to each other, we really are supportive and help one another. It's tough love to the extreme.” (Thad)

The above indicate that a fundamental difference between the group and the rest of the social environment of Fitocracy was its approach to empowerment and knowledge negotiation. Based on their social norms, ‘Sandbox’ members exchanged ‘brutally

honest' comments, in order to empower each other, offer feedback and help each other make progress. However, a culture shift was essential according to Derek:

*“Even now, a 'sandbox' group would NEVER work for me. But I agree that the virtue of groups like that is their tendency to be self-organizing and "find their own level". Something that I share with Thad is a concern about the "mass niceness" effect on Fitocracy. [...] So have some real-world friendships with people who likewise feel very *held back* by not getting a more direct kind of criticism. The web attracts so many people who want to do nothing but be cruel to each other, that it overshadows a lot of people who want to be "tough but fair", and who can actually handle that from each other.” (Derek)*

Derek and Thad agreed on the fact that the culture had shifted towards ‘mass niceness’, in place of ‘tough fairness’ which could have been a middle ground. It became evident that customers resorted to being overly polite in order to co-protect value in socialising, and include people who might be sensitive to honest, unfiltered comments. According to Derek, however, this could co-inhibit value because sometimes honesty within certain limits could be helpful. Raymond was a proponent of ‘niceness’ and gave a different perspective to the discussion:

“I would say yes [I would describe Fitos as smart, nice and witty people]. There is not the under lying Bro culture here and if there is, we are perfectly self-aware and it becomes almost self-deprecating. People here are open, well read, and put together cogent arguments, and are funny as hell. They have a unique way of telling you that you did something stupid without telling you that you are stupid. The diversity of background and social experiences is amazing. Look at this discussion here, you aren't seeing a whole lot of PHD discussions on Bodyspace. The best you might get is a "you have a PHD in hot AF!" This is broader social discussion as it relates to what makes a person overall healthy. Calling it a fitness site is technically accurate, but I tend to see it as more of biome due to the

complexity and the depth. I can discuss bench presses, depression, relationship support, kids and so forth in single session. All part of the health and fitness equation.” (Raymond)

Raymond expressed his dislike and resentment against the ‘bro culture’. He seemed to like and be proud about Fitocracy’s current way of socialising, as he believed that engagement with socialising could involve interesting, deep, and humorous discussions, covering a variety of topics, because of the prevalent culture. Ken agreed with Raymond, and believed that ‘niceness’ contributed to value co-creation and co-protection as well:

“I relate to a lot of what you said Raymond. You seem to also not be a ‘bro’. I hate all that BS that often goes along with male gym culture. Interestingly, I have found in my experience the strongest people are not like that at all, in fact those I have spoken to seem to be very deep thinkers. I agree about your comments about the people on here. I am not that active in groups etc. but I have experienced authentic interaction, as real as anything you could experience IRL. I did not tell people online that my father died last year but for some reason I felt myself posting it in here.”
(Ken)

Ken’s account indicated that the ‘bro culture’ was associated with an overly masculine mentality towards fitness. He expressed his preference towards the current culture, as it provided depth of thinking and substantial emotional support, through significant events in a customer’s life such as times of grief. Finally, Ken demonstrated a positive affect towards his engagement with social interactions on Fitocracy, and chose the word ‘authentic’ to describe them.

Humour and trolling

An additional difference between Fitocracy and other platforms such as 4chan was its approach to humour. Following the platform’s mentality, customers engaged in socialising in a humorous and playful manner, which was acceptable and possibly even encouraged by the provider, as the gameful design also involved humorous words and

expressions included in the challenges, achievements and badges. Victoria talked about her engagement with Fitocracy's humour:

"There's something about the sense of humour and community that I've found here which I've connected with and just brings a smile to my face more than anywhere else. To the point where I've saved memes, but not had anybody to share them with." (Victoria)

Victoria referred to the most positive form of engagement with humour which generated the emotion of 'mirth' (Martin & Ford 2018) and contributed to value co-creation. Sometimes humour was understood only by the customer who initiated the humorous interaction:

"Also a lot of times I'll comment something and nobody will get the humor in it. Sometimes I even know that people may not get the humor of it, but I still write the comment cause hey, it was funny to me." (Thad)

In Thad's example, the author of the humorous comment felt mirth, as he perceived his joke as funny, but the receivers of the joke did not feel the same way. However, this did not necessarily lead to negative value creation. Problems arose, when humour was replaced by trolling:

"What I think of as the "4chan style" on Fitocracy used to give me trouble. I'm the kind of person who doesn't always know how to distinguish between good-natured teasing, teasing that accidentally goes too far, and outright trolling. It's not that I can't figure out extreme cases, but the grey areas can be hard for me, and it's worse on a day when my own mood is awry." (Derek)

Derek described a continuum between 'good-natured teasing', 'teasing', and 'outright trolling'. It appears that the person who engaged in trolling behaviour experienced mirth, and enjoyed an overall positive affect. However, from the receiver's perspective there was no mirth but emotions such as annoyance, dislike, insult and embarrassment, resulting in a negative affect, and value co-destruction. Thad explained that in the early

phase of Fitocracy, trolling was relatively common because many customers came from 4chan:

“Quite a few people came from 4chan to fito and tried to keep it completely anonymous like 4chan and were basically trolls. They would harass people for no other reason than to just harass people because they thought it was fun.” (Thad)

During the peak phase, the moderator controlled trolling by sending warnings and bans when necessary:

“The line between 'trolling' and 'borderline humor' is tough to determine, and I think Fito did get quite cautious about it for a while. Liam's example is so 'meta'. The people who replied weren't exactly noticing all the possible levels of irony.” (Derek)

As Derek explained, value protection was prioritised, and forms of humour such as irony could constitute offense. This could inhibit value co-creation in the future, as customers might avoid using humour altogether.

Posting pictures

Posting pictures on social media, particularly pictures of oneself (selfies), has become a popular way for customers of social networking sites “to display their personalities, lifestyles, and preferences” (Sung et al. 2016, p. 260), and has been found to be motivated by “attention seeking”, “communication”, “archiving”, and “entertainment” (ibid., p. 260). On Fitocracy, posts including pictures were very common, and their content varied significantly, according to customers’ interests or the groups’ topic, if a post was made on a group page:

“Like there's different groups sometimes you'll have like I think there is groups on like Fitocracy injuries like recovery rooms so people post pictures of their injuries (laughing), pictures of themselves like in the past before what they look like, if they levelled up so you get a certain amount of points where you level up to the next level of what your goals should be and

people will take a picture of the progress of their bodies, what it looks like, people take pictures of their food, if their on hikes there's a group about nature you know it's called nature porn (laughing), we'll have pictures of the mountains of whatever they're doing so there's like a group for everything![...] so it just depends on what you want to follow.” (Lance)

As Lance's account illustrated, many of the pictures were showing people's bodies, sometimes to show a particular muscle group, their overall fitness progress, an exercise, or even an injury. Posting pictures was generally well-received with positive affect, while it constituted a value co-creation process. Under a post, other customers could leave a 'prop', make empowering comments, offer advice, and often use well-intended humour. Showing one's body shape was a form of self-representation in the community, which made customers feel proud, and gave them the opportunity to praise each other's efforts:

“Despite my profile picture, I've never had aesthetic goals which confuses the majority as it is. Rather, my picture represents how proud I am of my health & fitness progress over the past couple years since first picking up a barbell. Fitocracy is the only social platform in which I have felt comfortable enough to post pictures of myself in just my underwear, though yes I have generally tried to keep my face covered as well for that vague idea of privacy.” (Victoria)

As Victoria explained, posting pictures of oneself in underwear or swimwear, could be embarrassing and perhaps cause negative affect in other online environments. However, on Fitocracy, it was widely accepted, while it was a means of reinforcing healthy rather than 'perfect' body images. Posting pictures and commenting on them, followed certain written rules (Wang 2014); failure to abide by them could be a reason for value destruction, and could result in a temporary or even permanent account ban (ibid.). The main rule when posting pictures of one's body was that full nudity or offensive content was not permitted. The second, but equally important rule was that body pictures should be tagged as 'NSFW' (Not Safe For Work). A customer could

then choose through the privacy settings, to hide content tagged as NSFW; this way, pictures of customers' half-nude bodies would not appear on the screen of a customer's mobile phone in a working environment:

“I am always on the app unless it's to correct an exercise or to post a picture with a NSFW (not suitable for work) tag, since I can't do those from the app. [...] It makes it so that a picture has to be clicked on in order to view and not just posted regularly.” (Janiya)

As Janiya explained, tagging a picture as NSFW was only possible through the website, and not through the app, which could be associated with negative affect, value co-destruction and co-inhibition. However, abiding by the rule of NSFW tagging, which has been found in other online platforms such as Tumblr (Tiidenberg 2016), constituted a form of value co-protection, and allowed customers to feel comfortable engaging with the system while they were in a formal environment in real life. Finally, commenting on other customers' pictures, followed general rules of socialising (Fitocracy 2018), mentioned later in this section, with the purpose of avoiding offense and insult against the person on the picture.

Meetups

Since the early emergence of online communities, it was noted that users demonstrated a tendency to extend their online social interactions to offline environments (Parks & Floyd 1996; Wellman & Hampton 1999; Carter 2005), which could strengthen social ties between them (Wellman & Hampton 1999; Sessions 2010). Participants of this study reported meeting in real life both in one-to-one as well as group meetups, when their geographic location permitted it:

“I've been to a couple real life Fito meetups also and those were super fun. [...] There are a number of geography based groups and some of them have arranged get-togethers. When I lived in the San Francisco area, I went to a meetup at a trampoline gym, with drinks after. That local group also did some hikes together but I never made it out to one. I also went to

one in London while I was traveling - we met up at a gym and worked out together, and then later had dinner and drinks.” (Jane)

In Jane’s account, customers who were in close geographic proximity arranged meetups which involved physical activity as well as having dinner and drinks together. Her description was similar to other participants’ reported experiences; most meetups appeared to involve an element of physical activity, followed by a casual social activity. It appeared to be a positive value creation process, taking place within the customer sphere, constituting a real-life customer-customer interaction. The frequency and willingness of customers to participate in meetups varied:

“After that, I started going to meetups probably once or twice a month. They were mainly in New York City and Philadelphia as there was a fairly large number of people that would meet there. Most of the time we would meet early in the days and normally hit the gym, maybe go rock climbing, then we’d go out to eat and get some drinks later. Honestly, that was quite the sight sometimes. And even though a lot of us just met for the first time, we always connected like we were old friends that haven’t seen each other in a while.” (Thad)

Thad appeared to engage emotionally and experience a positive affect through his frequent engagement with meetups. He presented a meetup as an enjoyable bonding process; a description which is consistent with relevant literature (Wellman & Hampton 1999; Sessions 2010). On the other hand, some participants did not express any interest or previous attempts to extend their social interactions to real life meetups, although they appeared to engage in value co-creation through socialising:

“The social aspect is always entertaining...motivation, humor, venting, life stories. I’ve never met anyone from the site, but I never really tried either.” (Owen)

Sometimes the intention to meet people existed, but the location or other conditions did not permit it:

“No, I haven't [met people in person] but if there was a Fito meet close to me, I would go.” (Wendy)

The importance of being able to meet other Fitocracy members who lived in close proximity was demonstrated when some participants were asked what they would possibly change about Fitocracy, if they could:

“:) Hmmm. I think there's only a couple small things I would like different. One is that I think there should be an option to put your location in your profile (maybe there could even be a function to hook you up with local gyms/trainers).” (Jane)

Jane highlighted that she would like to know where other people were located, in order to extend their social interactions from customer-provider-customer online, to customer-customer in real life. Jane is also expressing her preference to add integration with service providers in real life; Fitocracy with gyms and fitness professionals.

Lance expressed a similar view:

“I think one thing I would change is I would make the ability to find people that are near you easier? It doesn't seem to, even though you have like a community, a supportive community in the cloud I don't find it as easy finding Fitocracy members that are in Los Angeles for instance. Like I think there's a group, I don't know how many groups are out there let's just say they are more than a thousand, there's a bunch of groups out there but I know there is one like Los Angeles group but it doesn't seem to be a very active group as far as people posting, but I know there's other Los Angeles people out there cause I've met them accidentally you know while I'm posting my injuries or events that I'm doing! So one thing that would come to mind is somehow making it easier for people that are in your community that are close by you to be able to interact with them easier. And to find that support easier and to make creating maybe more real relationships easier that way. That would be something that I would change.” (Lance)

Lance's account indicated that engagement with customer-customer interaction would be a value creation process, and therefore connecting with the local community both online and offline would strengthen bonds and facilitate mutual support. Concerns have been expressed in previous studies that offline meetups might have a negative impact on online participation (McCully et al. 2011), or that the members who attended offline meetups would create strong ties, and engage less in socialising with non-attendees (Sessions 2010). None of those issues appeared in the findings, but further research on the topic could shed light to possibly underlying issues.

Etiquette, misbehaviour and the role of the moderator

According to Kiesler et al. (2012), to regulate behaviour in an online community, a provider needs to display a clear set of written rules which customers are expected to follow. On Fitocracy such rules were presented in the community's 'Code of Conduct', which humorously began with the phrase: "*Don't forget what your mother told you. Treat others as you'd like to be treated.*" (Fitocracy 2018). Failure to abide by the rules of etiquette, would result in value co-destruction. Preece (2004) viewed online etiquette in communities of practice as a set of norms underpinning social interactions, and pointed out that "*when norms of etiquette are broken, discomfort, confusion, annoyance, embarrassment and even fear may ensue*" (ibid., p. 299). In such events, other customers would interfere with comments, in an effort to co-recover value, or the moderator (whom I will call by the nickname '@Moderator') would enforce the rules through warnings and bans:

"Most of the time @Moderator would just tell people to stop commenting on a thread, but there were times where she would just outright ban someone." (Thad)

A participant who was an advanced customer claimed that he never experienced any events in which the rules were broken, or any unfriendly disputes:

"No, I actually I haven't experienced any negativity on Fitocracy." (Irwin)

Irwin's account indicated that such instances were relatively rare, or quickly resolved. Marcel admitted that he had not experienced any himself, but logged into the platform shortly after an incident had occurred:

"I've not personally experienced any problems or arguments, but I have seen them happening. I've usually tuned in quite late and I'm left wondering what I missed. [...] I can't remember at the moment...there was a very long thread / multiple threads where one person had a strong & unpopular opinion about something. Unpopular, in that every other person posting was of the opposite opinion. On the whole, they were all trying to explain why they were of that opinion, but the one person who was the opposite would not be swayed, no matter what. They also did not seem open to any other viewpoint. I think their particular way of wording things ended up getting them banned, but I don't recall." (Marcel)

In Marcel's example. A group of customers engaged in a dispute because of a strong opinion being expressed by one of them, to which the others expressed dislike and disagreement. @Moderator interfered by banning the people who used offensive or aggressive language, following the Code of Conduct (Fitocracy 2018). Collin described an incident which was pertinent to the category of posting pictures. As previously explained, posting pictures that revealed part of one's body, was acceptable within certain limits. A group called 'Objectify me!' existed, which was created for the sole purpose of sharing such pictures and receiving positive, yet respectful comments. However, a customer misunderstood the purpose of the group and posted a negative comment under a picture, as he thought it was overly provocative. A dispute was triggered, which was resolved through the interference of other members of the group in the discussion:

"Only second hand. Iirc (if I remember correctly), some person made derogatory comments to another user based on a picture posted in the "Objectify Me!" group (a group which I had found to be a wonderful thing in itself, because sometimes we do want hear what a cute butt we have and

maybe even what other people might like to do with it, just generally not at a random moment in the street), maybe this person misunderstood the reason or utility of this group. Anyway, while a number of people apparently gave direct feedback to the offensive person, all I saw was a large group of people posting vaguely suggestive pictures of themselves there, usually calling them "skanky" (apparently, "skank" was a term used by the offensive guy, who had quite troubled the woman whom he chose to so address). So, again, I only witnessed the support [...] I've also, come to think of it, seen some derogatory comments regarding political statements made there...but it seems a rare thing. Maybe it's a liberal bubble I'm in and there is "Fitos for the 2nd amendment" group and a "White Power Lifting" group, too - but I doubt it." (Collin)

Therefore, pictures could be seen as offensive by some customers, causing value co-destruction, and through initiation of disputes further co-destruction could occur. Issues about political differences of opinion have been mentioned by other participants as well, and once led to a customer being banned for expressing political views in an aggressive manner. Finally, one of the reasons behind community disputes and subsequent interference by the moderator, was the culture shift that happened during the transition from a closed platform to a more commercialised one, open to diverse groups. The moderator enforced the new culture by sending warnings and banning marginally offensive posts which used to be common between older members:

"But the culture of Fito started to change. Many of the people that I interacted with most and learned from were getting banned. I had even been given warning emails for not being sensitive. It was very much a tough love mentality." (Thad)

Thad explained that during that time the moderator's interference was a process of value co-destruction and co-inhibition for the old members who had supported Fitocracy in the beginning. Thad was one of the customers who engaged in value co-recovery by adapting to the new rules gradually, after receiving a number of warnings

for his posts. Participants often expressed their positive affect and thoughts towards @Moderator's work in value co-protection and co-recovery. Sophia believed that the moderator acted quickly and effectively in resolving issues:

"As with any big online community there are sometimes issues, but the moderators are really fast to deal with them." (Sophia)

Olivia appeared pleased both with the moderator's work and the customers' behaviour overall. It seemed to be the case that incidents of hostile behaviour were infrequent:

"I think for the most part people respond pretty positively and politely. I know the people that monitor the website, like @Moderator is the one that does that but @Moderator, she monitors it a lot and if people are not being very kind, she'll jump in (laughing) and kind of tell people to be nice to each other or she might even delete the post or something." (Olivia)

The findings demonstrated that Fitocracy followed Preece's suggestion: *"A few basic, but strongly upheld policies by moderators, help to set standards of communication and can prevent aggression online"* (2004, pp. 299-300). However, some incidents appeared to happen behind the scenes and seemed to be to some extent beyond the moderator's control. Online harassment through private messaging was one example:

"I know of a few people, women, who left or changed accounts due to harassment of some sort." (Santo)

According to Santo harassment was a major source of value co-destruction and co-inhibition, as people might cease engagement after such an interaction. Zoey confirmed it, as she had experienced it personally:

"It isn't without some unpleasant sides, naturally. I get more sexual harassment and unsolicited dick pics from more guys than I could ever imagine. I never reported them b/c I have learned to evade pretty easily. I actually reply politely and the guys, not getting the reaction they desire, usually weed themselves out." (Zoey)

Zoey refrained from reporting incidents of harassment to the provider; a behaviour described by another female participant as well. The participants engaged in value co-recovery by ignoring the messages they received, or by responding in a manner which discouraged further harassment. Therefore, the participation of customers in resolving issues of misbehaviour, whether in public discussions or private messages, is consistent with the idea that online communities may need a moderator, but tend to regulate themselves as well (Preece 2004).

Degree of engagement

In an online community, contribution from members enhances social capital (Preece 2004), and in an online environment focused on discussion, rather than for example creating videos or other material, *“it is the conversations that participants exchange with each other that provide benefits to others”* (Kraut & Resnick 2012, p. 21).

Maintaining frequent contribution and demonstrating commitment to socialising (Ren et al. 2012), are both fundamental ingredients in positive value creation within the customer-provider-customer area. There were participants who demonstrated commitment:

“A typical day would be me logging on to Fitocracy on my phone in the morning on my way to work to check for notifications and visit my 'friends' feed.” (Sophia)

Sophia’s cognitive and behavioural engagement with socialising was similar to other participants’ accounts; she consistently logged in every day to maintain contact with her online connections and view their posts and workouts. Some participants admitted that a large part of their engagement involved scrolling through the feed pages without making substantial contribution:

“Fitocracy gets opened in my social media checks every couple hours or whenever my attention span is especially short and I flick through my notifications, Activities feed, Groups and Your Friends. I generally prop my friends' activities as they go through the day and maybe comment on anything they've said in their workouts, but I don't always read them in

detail as the lb to kg conversion just confuses me. Same with groups and friend activity, more propping and maybe once a week or so I'll comment. In my 1.5 years on Fito, I don't think I've posted more than ten times in groups.” (Victoria)

Other participants reported substantial contribution initially, and gradual sense of fatigue and loss of interest in socialising over time:

“I would say, I’m not as social as I used to be. And I think that is just because of laziness.” (Irwin)

“I think at one point a few years ago I had maybe 50 conversations going on with different Fitos. Now days I don't talk to anyone privately. I think there's an exhaustion point on being social online, for me, at least. I just don't have the time or energy to invest into other people anymore. But, it was very rewarding for a time there, to believe that I was making a difference in other people's lives by just being there to listen to them.” (Zoey)

Zoey engaged in providing emotional support and empowerment to a large number of customers, contributing to value co-creation. However, both Irwin and Zoey reported experiencing a form of fatigue which co-inhibited value creation through socialising. Naturally, some participants explained that they prioritised investing their time on other activities rather than socialising online:

“The social aspect was not a high priority when I started. But that too has grown on me. I work out alone, early hours. I don't have much time outside parenting and working so the teeny bit of virtual socializing is nice, however unreal. I admire the duels folks have with each other but am glad not to participate in it.” (Zack)

Zack justified his limited engagement with socialising to leading a busy life, but he reported experiencing positive affect from it. Scott, on the other hand, expressed his

dislike towards mindless engagement with social media, which could distract him from other life priorities:

“I’m not a social media enthusiast: while I use Facebook, Instagram, and Twitter, I do so in a limited and controlled manner. I fear too many of us fritter away too much of our valuable and limited time within those spheres. I personally don’t like spending excessive amounts of time scrolling through social media feeds. So my decision to cease tracking workouts on Fitocracy was also part of my own strategy for protecting my own time from the lure of social media.” (Scott)

Therefore, the degree of engagement with socialising could vary among participants. Some were committed to contributing on a daily basis, many were scrolling through the feed pages without making substantial contributions, and some preferred to refrain from socialising for reasons outside of the provider, such as general fatigue and loss of interest in socialising, or avoiding social media distractions (Brooks 2015).

Summary

Socialising on Fitocracy involved positive value creation processes such as emotional support (Lin & Bhattacharjee 2009; Zainuddin 2017) throughout customer’s efforts and challenges, as well as empowerment, which involved encouragement (Zainuddin 2017), compliments, and ‘props’ (Hamari & Koivisto 2015). Empowerment as ‘cheerleading’ could constitute negative value creation, when not used as a tool for self-improvement. Participants engaged in value co-creation through sharing their interests with like-minded customers (Ridings & Gefen 2004), while certain less acceptable areas of interest which could lead to value co-destruction, could be transferred to private groups for value co-recovery and co-protection. Furthermore, knowledge negotiation (Ridings & Gefen 2004; Chiu et al. 2006) was a primarily positive value creation process, which involved questions, answers, comments on posts or workouts, and links to other sources of information.

The members of Fitocracy embraced diversity and engaged in socialising with diverse groups of customers in positive value creation processes. Disputes around LGBTQ

issues and the use of ambiguous expressions such as ‘no homo’ could lead to value co-destruction, and compromise diversity-related values. In addition, from the early phase to the peak phase, the community had transitioned from ‘brutally honest’ feedback exchange and a male-dominant ‘bro culture’ to an overly polite behaviour, which was reinforced by the provider through the moderator, to co-protect value. The moderator working together with customers, also protected the community from heated discussions, offensive content and harassment; the latter sometimes came undetected, and was addressed by the community’s self-regulatory mechanisms (Preece 2004) which co-recovered value. Similarly, participants appeared to co-create value through humorous social interactions, while rejecting trolling with the support of the moderator, in order to co-protect value.

Picture posting was a positive value creation process, through which participants presented their personalities and interests (Sung et al. 2016), and displayed their fitness progress. Groups with pictures revealing part of people’s bodies, although well-intended, were sometimes misunderstood leading to value co-destruction. Meetups (Parks & Floyd 1996; Sessions 2010) were a form of socialising which involved value creation independent from the providers, although the providers joined occasionally, and involved social events and physical activity in groups. Finally, the levels of engagement in value creation and co-creation through socialising varied among participants, resulting in different degrees of commitment (Ren et al. 2012) and contribution (Preece 2004; Kraut & Resnick 2012), which could fluctuate over time due to fatigue, other priorities, and resentment towards social media distractions (Brooks 2015).

6.5 Theme 4: Relationships

Participants reported engaging in building and maintaining relationships in real life or online, with customers, non-customers, and the provider. As a relationship in this analysis, has been considered any interaction which appeared to be prolonged, of a greater significance to participants, or both. Theme 4 is connected to a great extent with theme 3, as engaging with relationships is a form of socialising. However, it

constitutes a separate theme in the analysis because it highlights the types of bonds associated with Fitocracy, and demonstrates the role they played in value creation.

Community

The first type of identified relationship was that of community bonds. According to early definitions, a social group had to meet certain criteria to be considered as a community (McMillan & Chavis 1986). As online social gatherings emerged and grew in popularity, the notion of ‘online community’ gradually became more inclusive (Preece 2000), and is nowadays being used to describe from small to large-scale online social networks hosted on social media (Chambers 2013). Participants frequently used the word ‘community’ when talking about socialising on Fitocracy. Indeed, many aspects of socialising indicated the existence of community norms (Khaled 2015); the unwritten rules favouring ‘niceness’ as opposed to ‘bro’ culture, the mutual support and empowerment, the accepted forms of humour, the protection against harassment, the embracement of diversity, including respect towards sexual and gender identity, as well as people’s willingness to engage in negotiating knowledge, or “*knowledge sharing*”, which has been recognised as a characteristic of community (Khaled 2015, p. 310). Participants viewed the community of Fitocracy as a group of people who had a common purpose and a similar lifestyle, and thus understood each other well:

“The community on Fitocracy, we all have that one common foundation of fitness and exercising even though we might have different reasons for it or different goals, it seems that the people that I follow or the people that I pay attention to I guess...it’s like...fitness is a part of our life. It’s part of our lifestyle, it’s not something that we are doing because we want to reach a certain goal or lose weight or do something, it’s actually more about lifestyle for us. So, I think that’s why kind of like I said we understand each other. Because we are all coming from the same mindset of like...fitness is a part of our lifestyle and we understand that because people who really don’t have a lot of physical activity in their everyday life I don’t think understand how important it is to us, when we do.” (Olivia)

Olivia's account reflected positive affect, and value co-creation derived through cognitive and emotional engagement with the community. It is consistent with Khaled's idea that "*culture manifests itself in how we relate to others*" (2015, p. 307). The author supported that gamified systems "*are designed around user communities and participation*" and that "*they uphold certain cultural values*" (ibid., p. 307). The core value of the Fitocracy community, according to Olivia, was that engagement in physical activity was an integral part of members' mindset and lifestyle. This common value differentiated the community from the social world outside of it. Another core value of the community appeared to be its openness to new members of all fitness levels, which was reflected in the welcoming and helpful behaviour towards new customers:

"People were very helpful. I was logging things like distance incorrectly and someone would point it out. I'd write on my wall without having many followers and was reminded to go and join some groups and follow people :)" (Wendy)

Wendy explained that in the beginning of her engagement with activity tracking, she received help from other members to understand the system's function, for which she appeared pleased. She was also encouraged to join groups and create her first connections by following more customers. Sophia reported the following:

"I remember being made to feel really welcome. Strangers followed me, propped and commented on my workouts. [...] I felt accepted even though I was not strong or fit!" (Sophia)

The topic of acceptance was brought forward by many participants. It appeared that other online communities of related interest were not as open as Fitocracy towards different fitness levels. A third core value emerging from participants accounts was Khaled's notion of "*interdependence*", interpreted as maintaining "*group morale*" and "*pursuing group goals*" (2015, p. 311). For participants who engaged in building and maintaining community bonds, personal goals were seen as group goals and were supported as such:

“That said, there was so much positive support on Fitocracy [...]. The more up-front I was about myself as a person and as a novice weightlifter, the better things got. So there was a really good 'positive feedback loop'. It wasn't long before Fitocracy felt like the best destination on the web each day. While I have some long-standing internet friendships going back nearly 15 years now, and have met many of those old friends many times in real life, the general social situation on Fitocracy was tremendously appealing and very useful to me.” (Derek)

Derek explained that the more he trusted the community with his goals and challenges as a novice weightlifter, the more support he received. He appeared pleased by the community's group morale. Owen pointed out that the community was non-judgemental towards his choices in physical activity; they refrained from judgement, and provided constant empowerment:

“I believe that the great majority of Fitocrats are non-judgmental. I have never met anyone who judged me for my workouts. [...] Now...if I were doing all my exercise at a gym, I think it's likely that someone may eventually approach me and say, "Dude...all you do is push-ups." Here on Fitocracy...there could be someone out there saying that about me now...and I believe that in this forum it would be easy for that person to do so. Much easier than approaching me at a gym. But it hasn't happened. Instead, I receive props for my effort and congratulations on personal achievements.” (Owen)

In Owen's account, as well as other participants', high levels of emotional and cognitive engagement with the community on Fitocracy were justified through a comparison with their real-life connections:

“What really keeps me here though, is the community. It is very unique, extremely supportive, respectful and knowledgeable and I would be totally lost without it! I have no one in my life who is into lifting, and Fito is my lifeline.” (Shauna)

Shauna's account indicated that she depended on the community to find support and guidance in her physical activity efforts, something that was absent in her real-life environment. Shauna referred to two core values; the fitness mindset as well as interdependence.

The above suggested that community bonds were evident throughout the theme of socialising, where norms appeared to underpin customers' behaviour (Khaled 2015). In addition, three prevalent community values emerged; the mindset that fitness was a part of customers' lives, the openness and acceptance towards new members irrespective of their background, and an interdependence and group morale in physical activity efforts (ibid.). Engagement with the community contributed to value creation and co-creation. A risk of co-destruction stemmed from the reduction in the number of community members, particularly during the plateau phase of Fitocracy. Value recovery took place to some extent through different providers:

"I've actually a lot of Facebook friends with people who no longer use Fitocracy. In fact, we actually have a group on Facebook called...I think it's called 'Fitocracy Veterans'. Basically, it's for people who no longer use Fitocracy but they still want to contact and everything. That's actually a pretty cool idea, you know, with the social aspect of it." (Rowan)

The fact that engagement with the community was maintained, by transferring the communication to another provider, further indicated that community bonds existed.

Friendship or connection?

In addition to developing community bonds, Fitocracy members 'followed' each other, thus created a network of personal connections. Current literature on online communities hosted in social networking sites encourages an open-minded understanding of the notion of 'friendship.' Chambers (2013) explained that *"digitalised technologies of communication are becoming more diversified and being combined in various ways to sustain social ties of a personal nature"* (p. 40). The author suggested that online connections on social media, whether they involve stronger or weaker bonds, should be considered as friendships, of a casual nature

(ibid.). Participants' perceptions of friendship varied, and many of them reported making friends rather than simple connections:

“And you know I've made a few connections that I would call almost friends through there, so the social aspect has been good but I didn't know that going into it.” (Helen)

Helen used the term 'almost friends' to describe her cognitive and emotional engagement with this type of relationship. Olivia explained why she considered her friends 'virtual':

“Well, I guess I consider the people on Fitocracy virtual friends, because, with the exception of one person that lives near me, I haven't physically met anybody face-to-face or talked to them outside of the app, so I guess I kind of look at it in a way that...these are my friends on the world wide web, I mean I'd love to meet people, but we don't all live near each other, or...I mean that's kind of what I refer to as my virtual friends I mean there's people that I do message with through the app and I consider that a little bit more than an acquaintance because we kind of communicate that way? We just haven't met each other. But we don't hang out like I would hang out with my friends.” (Olivia)

There were participants who had no doubts about whether they had made friends or not on Fitocracy:

“I would [say I have made friends here], definitely.” (Wendy)

“I definitely have [made friends on Fitocracy], I've met about 12 fitos. [...] I met them through mutual groups on here. Most people comment or have in their description where they are from and would reach out to me if we were in the same area. Or some fitos post in the main page when they are traveling and if there are local fitos in the area, to which I would comment if they were passing by my neck of the woods.” (Janiya)

Wendy and Janiya expressed their certainty that some of the bonds they had developed constituted friendship. Janiya actively engaged in arranging to meet her online friends in real life as often as possible. Her engagement in relationship building in the area of customer-provider-customer interaction, led to customer-customer interaction in real life, in an overall positive value creation process. It appeared that when online friendships existed, the key for them to become from ‘almost’ or ‘virtual’ friendships to ordinary friendships was meeting in real life. The latter is consistent with a study by Sessions (2010), in which it was suggested that real life meetups enhance social bonds and engagement with the online community. On the other hand, some participants made it clear that they did not build friendly relationships on Fitocracy. Marcel, who referred to other customers as ‘folks’, explained that he interacted with them sparingly:

“Folks is just a colloquial way I refer to people, I suppose. I wouldn’t say I’ve made any friends on Fitocracy, no. None of the communication with anyone tends to go beyond a post or two...perhaps the occasional comment against a workout. This is the most I’ve communicated with anyone after contact on Fito.” (Marcel)

Marcel’s account indicated that engaging with friendships was a matter of personal preference, as there was no indication of value co-destruction or co-inhibition, which would suggest otherwise. Engagement with friendships could reach a deeper level, both emotionally and cognitively:

“I saw them as probably my two closest friends since we had so much in common. Lots of good times.” (Thad)

Thad met his online friends frequently at the local gym, and they supported each other in their fitness journey. Therefore, a prolonged behavioural, emotional and cognitive engagement with friendship, online and in real life, led to the development of strong ties. For Zoey, friendship was expressed as trust and disclosure of personal stories

“Getting to know this person was interesting, too, as he used to be overweight and so now he trains extra hard to make sure that never

happens again. Still kind of hold that chip on his shoulder like he has something to prove to his former self. Getting recognition and compliment on his hard work is one of the components that fuels him to continue his grind.” (Zoey)

In Zoey’s example, a friendship developed through sharing personal stories with another customer and supporting each other, via private messaging. Friendships on Fitocracy, similarly to community, were compared with real life friendships in terms of emotional support:

“For me, Fito's been there when my family and some (now former) friends weren't. The encouragement and support will always be what I take away from this!” (Caren)

Engagement with friendship was therefore a positive value creation process. However, value co-destruction occurred in the area of customer-provider-customer interaction, when a participant’s friends, ceased engagement by leaving the platform:

“The community itself persists, but our old friends move on. That always carries some sadness. New friends come along but don't always feel as close, because we're not ALL 'in love' with Fitocracy at the same time and discovering it together.” (Derek)

Derek expressed his sadness about the fact that people left the platform, and a nostalgia of the first friendships he built on Fitocracy. Participants could engage in value recovery, by maintaining their friendships through different means:

“I was sorry to see people have to leave, but there are other ways to stay in touch if you want to.” (Santo)

Consequently, building and maintaining friendships contributed to value creation and co-creation, while bearing a risk of value destruction and co-destruction when friends disengaged. However, as previously mentioned, customers were connected through other providers as well, where value from friendship could potentially be recovered.

Romantic relationships

In some cases, developing romantic relationships was possible, although online dating was not the core focus of the community. Mary and Rowan reported having met their partners on Fitocracy, while Thad reported engaging in online dating once through Fitocracy:

“Eventually I even started dating someone here that turned into a 6-month relationship.” (Thad)

There were several accounts indicating that romantic relationships were formed through social interaction on Fitocracy:

“If you are interested you can even find romance! I know of at least 2 couples who met on Fito.” (Sophia)

“I know a few couples who have met on Fito and gotten married, too.” (Zoey)

Zoey, who appeared to be a highly social, advanced customer, expressed her fear towards the risk of infidelity through Fitocracy’s social interactions. She explained how the fact that people found common ground in the community and developed their physical fitness together, could make their real-life romantic relationships feel less appealing and create a risk of infidelity:

“I think that's what makes the online fitness community scary: is how it can impact real-life relationships. In particular, trust issues or cheating on partners. This is especially true in the case that one partner discovers fitness, gets healthier and fit, then find like-minded people to connect with while the other partner stays stagnant and disinterested. There becomes an emotional gap in the relationship and it usually leads to infidelity. I do know of many instances of this happening.” (Zoey)

This negative cognitive and emotional engagement process constituted potential value co-destruction for Zoey as an observer, as well as for non-customers who could be

affected by infidelity. The above is consistent with studies indicating that the effort of maintaining healthy romantic and marital relationships in the age of social media can be challenging, due to the facilitation of infidelity-related (IR) behaviours by online providers (McDaniel et al. 2017; Aviram & Amichai-Hamburger 2005).

Relationship with the provider

Desai (2009) suggested that a social marketer should be an “*active relationship partner*” (p. 116). The author acknowledged the capabilities of online social networks in enhancing value co-creation through the development of such relationships (ibid.). Fitocracy customers had the opportunity to develop a relationship with the provider by interacting in the external joint sphere, for example through Facebook and Twitter, and primarily in the gamified system joint sphere. Participants expressed their positive relationship with the provider by signing up for a paid membership, in order to support the provider’s work:

“I joined a lot of websites at the time, that I liked and I wanted to support, and Fitocracy was one of them. I liked it, I still do! So I decided to become a member; what they call a Hero.” (Rowan)

When the participant was asked why he became a Hero, the response was:

“[I became a Hero] because I wanted it to succeed.” (Rowan)

It was indicated that some participants identified with the provider as a brand, which gave the community characteristics of a brand community. They agreed with the vision of the providers, and admired the way they had pursued this vision. Therefore, they engaged behaviourally with this relationship by purchasing paid memberships, in order to support the company and increase its likelihood of success, leading to positive value creation as indicated above. However, it was also shown to lead to negative value creation, when the provider would not meet the customer’s expectations:

“I also feel that occasionally changes were made, not all of which I was happy with, which indicated that the platform was a) still under development and b) actively cared for. While it now on the one hand

appears fairly stable, but also a bit...stale. And of course, things that have been broken since the beginning look as though they'll stay broken. Makes me a bit annoyed about having changed to a paying membership so late - I feel that I freerode on efforts that were made creating it, and am now throwing money at a rentier corporation which isn't providing any active service.” (Collin)

Participants expressed their regret, disappointment, annoyance and worry about the future, for example in the case where the provider failed to respond to feedback, or to repair the platform from bugs. Furthermore, when the customers realised the providers' change in management, concerns were expressed in the community. Finally, during the plateau phase, disappointment was evident, and a close customer-provider relationship could either mean further disappointment, or in certain cases 'forgiving' the provider for the system's flaws:

“I wouldn't even attempt to do what Fitocracy tries to do, which is why I'm very forgiving of the few shortcomings there are. As I said before, you can't design something for the masses that will please everyone.” (Santo)

Santo acknowledged the 'shortcomings' of the system, but engaged cognitively in value co-recovery by understanding the challenges of building and maintaining the Fitocracy platform. Consequently, he maintained positive thoughts and a positive affective state.

Summary

Customers engaged with relationships within the external joint sphere, the gamified system joint sphere and the customer sphere. They developed community bonds which were evident as community norms and values (Preece 2000; Chambers 2013; Khaled 2014). Core values have been identified: a fitness-oriented mindset and lifestyle, openness to new members of all fitness levels, and mutually supportive group morale (Khaled 2015). Furthermore, participants reported developing friendships (Chambers 2013), which they considered equivalent to ordinary friendships, or slightly different, in which case they were referred to as 'almost' or 'virtual' friendships. The key

difference appeared to be the ability to meet online friends in real life. Other participants reported not developing friendships through their engagement with the platform. Value creation was positive, unless community members and friends left the platform, when value destruction occurred. However, community and friendship bonds could be maintained through other means such as other providers; the latter was a form of value recovery.

Romantic relationships, and sometimes marriages between customers were reported by participants. These were normally value creation and co-creation processes, except in cases of infidelity-related behaviour (McDaniel et al. 2017). Finally, customers developed a relationship with the provider (Desai 2009). A positive relationship, involving brand identification, could mean that participants shared the providers' vision, and chose to support them financially and forgive the system's flaws; both were forms of value protection and/or recovery. However, it might lead to additional disappointment and subsequent value destruction, as the provider was perceived to neglect the platform.

6.6 Theme 5: Physical activity

The desired outcome of a social marketing intervention would be people's behavioural engagement with physical activity. It is believed that positive value creation processes encourage performance of desired behaviours, while devaluation may be the reason for cessation of the behaviour (Zainuddin et al. 2017). On the other hand, the behaviour itself generates value, as encapsulated in the concept of 'value-in-behaviour' (Butler et al. 2016). In this study, physical activity was one of the engagement processes through which value could be created, destroyed, recovered or inhibited, and it was situated in the customer sphere. Although, it is a relatively small theme in itself, it is linked to all other themes, as physical activity is the central purpose of engagement with the themes of Fitocracy.

Performing various types of activity

The recommendations of the American College of Sports Medicine and the American Heart Association (Haskell et al. 2007) encouraged healthcare providers to promote a

variety of activities: *“A wide range of activities should be identified that meet each person’s interests, needs, schedule and environment, take into consideration family, work and social commitments, with options for inclement weather and travel”* (ibid., p. 1089). For optimal health benefits, a combination of aerobic and strength exercises was recommended on a weekly basis (ibid.). On Fitocracy, despite the missing exercises on the database, a large number of types of activities could be tracked, and participants could find like-minded customers on the platform to share their interests. Some users had narrow interests and others had a larger variety and were willing to engage in different activities. Brian, an advanced customer, mentioned that he trained at a competitive level in triathlon as well as powerlifting:

“Yeah, so they contradict each other, but at the same time you need one to do the other one. So...you know cross fit for example? [...] it’s a good example of what I did for lifting? But then I had all the swimming, the cycling and running. I mean it helps to have a base strength. But then you can use that to run say half a marathon. Because if you go out there and start running, so you start just doing endurance. I’ve found that you don’t become any better. Like there’s many things that you will start lacking like for example...mobility? Those are little things that only doing for example running wasn’t working for me so I started adding strength exercises and on the long term it has actually helped a lot. And I can give you an example it’s...doing the Iron Man training, I was lifting. And I actually got injured because I stopped lifting.” (Brian)

Brian appeared knowledgeable in regard to his training and demonstrated a high level of cognitive and behavioural engagement with his chosen activities. The fact that advanced customers were showing through the tracking and sharing system that they engaged in a variety of activities was important, as it could potentially influence other customers’ choices:

“I have also been known to copy a particularly inspiring workout and try to do it myself.” (Sophia)

In Sophia's case, other users tracked their workouts, and she created value by engaging with them cognitively and emotionally, being inspired to make an attempt, and engaging behaviourally in physical activity, by copying those workouts. Therefore, offering customers a variety of physical activity options, and allowing customers with different levels of experience to share their workouts, can be beneficial in promoting physical activity according to experts' recommendations.

Fun, learning, and self-development

Besides being encouraged to perform a variety of activity types, participants appeared to have adopted an open-mind towards learning and self-development. By tracking activity, turning it into fun through gamification, and socialising with a diverse group of people, they developed skills in existing activities, attempted new ones, learned life-long lessons about physical fitness, and accomplished challenges that made them feel proud. Shauna explained that engaging in socialising, even cognitively through observing each other's behaviour, urged people to go beyond their existing interests and ordinary activities:

"I also think there is very little segregation between the different "tribes" on Fito. It is very common to see a powerlifter logging some yoga, a runner trying out rock climbing or a calisthenics devotee having a go at weightlifting. People look at what others are doing on the site and think "this looks like fun, I'll try it"." (Shauna)

Shauna's account indicated that participants saw each other's activities, and assumed that engagement with physical activity out of the ordinary would be fun for them. Sometimes customer-customer interaction in real life could have 'life changing' effects as Zoey described:

"So, here I was, just going to the gym enough to look good, completely focused on aesthetics. One day, one of my Fito friends, @user1, posted on my wall saying he'll be judging at a powerlifting competition [...] I decided to go just to spectate. It was life changing. It was so cool meeting the 3 Fitocrats, and spectating just how awesome and supportive the sport of

powerlifting was, I decided to compete the following year. Which, I did, a year later, at the same event.” (Zoey)

Zoey engaged with socialising and relationships on line as well as in real life. As a consequence, she spectated an event which raised her interest and enthusiasm about powerlifting, and transformed her into a competing athlete. Another example was Brian’s attempt to complete an Iron Man, which is a long and challenging triathlon race:

“Yeah [I managed to complete an Iron Man]! [...] It took me 13 hours and 10 minutes. [...] It was quite a good challenge. I am always aiming for new challenges. And I think, basically Fitocracy can help a lot into...you know, learning about new challenges. Like, before that, you know I’ve been lifting. I had no experience with lifting, no experience with triathlon, it was a good change. (Brian)

Brian expressed his pride about completing a challenging race. His account indicates an appreciation of the self-development capabilities one had access to on Fitocracy. Some participants engaged cognitively and emotionally with their self-development in physical activity, and upon reflection they considered it as a fair process, which was appealing to them:

“And it’s like...you get what you put in! If you put in the work, like if you go and do things correctly, if you go about it smartly, there will be a reward. And that is a really big feeling of...it’s a really big confidence to know that I was able to do this on my own. But there is nobody who’s going to lift the weight for you, like it’s all on you, you know? That’s when you really feel that that’s something I can look back and be proud of. Then like you see some minor moves like some punch down or lateral raise...and you get like the same feeling of accomplishment, for getting a PR on one of those movements, it’s still like indicative of progressive overload, and it’s still something measurable. And I like that they have that very measurable “you get what you put in” and that’s very appealing to me. There is not

much in life that is as equal as lifting. You know, you can be the hardest worker, you can really bust your ass, and then a dude who barely did anything gets ahead because they know the boss for example. [...] Yeah. In lifting, it doesn't matter if you are the boss' favourite! It matters, it's just about the work that you put in and I think this is why it's so appealing to me.” (Irwin)

Irwin also expressed feelings of pride and fulfilment. His account may be of interest to social marketers, as it appears that game-like rewards are not as important for people as the rewards gained through physical activity, which are considered fair and generate positive affect. In summary, it appeared that engagement with physical activity, not only behavioural but also emotional and cognitive, could become a positive value creation process, in which the gamified system played an enhancing role.

Maintaining healthy balances

Besides engaging in various types of physical activity, healthy balances seemed to be prioritised by participants. Through their engagement with the platform as well as interaction with other customers, participants appeared to have developed an awareness of their own capabilities and limitations, for example in relation to their age:

“I'm older, I try not to lift too heavy because I don't want to get hurt lifting weight. Because, being 54, I have a hard time recovering as...my recovery is...would take too long. So, I don't.” (Rowan)

Rowan was a socially active advanced customer. Engagement with socialising, as well as frequent and consistent cognitive and behavioural engagement with physical activity had helped him find ways to protect himself from negative value creation. For other people, health and well-being could be compromised at times, due to over-engagement with physical activity, in which gamified or tracking apps might have played a part:

“Yeah, I think at that point the degree to which I was prioritizing exercise in my life became a little obsessive, and I decided to start focusing more on listening to my body and being active in ways that truly energized me, made

me feel good and added enjoyment to my life - as opposed to constantly quantifying things. It was just better for me at that time to take a step back.” (Tyra)

Tyra spoke about overtraining and once more raised the topic of ‘data nerdiness’. Engaging in physical activity at the expense of her healthy balances, combined with over-engagement with activity tracking and intensive data gathering, constituted processes of negative value creation. Maintaining a healthy relationship with exercise was important for Tyra, and she engaged in value recovery to achieve this. In their efforts to maintain a healthy balance, some participants reported that Fitocracy helped them manage their activity:

“I try to plan a routine. Maybe three to four weeks at a time I’ll try to plan of what I want my workouts to be, that doesn’t mean I necessarily follow it but it’s more to just make sure that I get enough balance with what I’m doing. And that I’m not doing things that are too difficult for several days in a row, just to make sure that I can maintain my fitness activity without burning myself out.” (Olivia)

Olivia explained that engaging in activity tracking and using the available features to plan her workouts, helped her ensure positive value creation through engaging in physical activity. This is consistent with current knowledge about the benefits of planning in physical activity interventions (Snihotta et al. 2005). Despite their best efforts, participants often experienced health-related setbacks, which led to value destruction as well as inhibition:

“Yeah, and now it is painful...and you know, you get frustrated because, you know, you’re making progress, and now you’re in pain, and you can’t do certain things, and you feel like it’s a setback.” (Lance)

Lance reported feeling frustrated due to suffering a painful injury on his shoulder. It is well-known in the field of sport psychology that, although there are different levels of severity, it is normally the case that *“athletic injury creates a situation of emotional disruption”* (Green & Weinberg 2001, p. 46). In social marketing, it has been found

that “*the most common physical barrier to behaviour maintenance for activities such as exercise was physical ailments and discomfort, such as sickness, fatigue, pain, and injuries*” (Zainuddin et al. 2017). Injury prevented Lance from engaging in certain types of physical activity, until his body would recover. Thad, on the other hand, faced multiple health issues at some point, which was not uncommon among participants:

“And I had been dealing with injuries and an illness that kept me bedridden for 3 months. During that time, I had gained about 40 lbs. I'm slowly recovering and decided to get back into it.” (Thad)

Similar to Thad, Owen explained that temporary interruptions of engagement with physical activity, whether they were caused by physical barriers or not, would be followed by a process of gradually restoring the previous routine:

“Like everyone else, I have my dry spells when I don't exercise for a while, but I still manage to get back on track.” (Owen)

Therefore, dealing with setbacks appeared as an integral part of the process of maintaining healthy balances. The evidence suggests that although incorporating physical activity into one's busy life was possible, the expectation that engagement could continue uninterrupted over time would be rather unrealistic. The momentum of engagement with a platform which hosted an online community appeared to prevent the interruptions from turning into a permanent cessation.

Adapting to life circumstances

Besides physical health, there were various circumstances which could facilitate or inhibit value creation through engagement with physical activity. Booth et al. (2001) developed a “*framework for determinants of physical activity and eating behavior*” (p. S23), which highlighted the complexity of the topic and the number of challenges that life circumstances could bring to people who wish to maintain healthier behaviours. As mentioned before, participants could lead considerably busy lifestyles, managing full-time jobs, families and social life:

“I’m a full-time mum of two, married 20 years. My life revolves around being a mother, wife, daughter (looking after elderly mum) fitness and my dogs. That wasn’t in any order lol.” (Wendy)

“For myself, father of 2 boys. Very busy lifestyle. Profession is a software developer. Workouts are usually after the kids go to sleep. I have workout area in the garage. Summer months I usually try to get outside more.” (Floyd)

Floyd’s way of addressing time limitations, and ensuring positive value creation was creating an exercise facility in his home, and exercising outdoors when the weather permitted it. “*Social roles*”, “*interpersonal relationships*”, as well as facilities such as a person’s “*home*”, “*neighbourhood*”, “*parks*” and “*recreation centers*” were some of the determinants of physical activity behaviour, pointed out by Booth et al. (2001, p. S23), while weather conditions were mentioned by Haskell et al. (2007). Both Wendy and Floyd appeared to incorporate regular physical activity in very busy schedules. It became apparent, however, that necessary engagement in other daily activities and interactions could mean value inhibition in the area of physical activity, for many people. Thad suggested that exercise can be a life priority despite the circumstances:

“I sympathize with people who have limited time, but even during my busiest I always found a little time to spend on my fitness. That meant cutting things like tv, but it comes down to what you want more.” (Thad)

Another side of this category was regarding important life events that led participants to change their levels of engagement with physical activity:

“In 2003 a few things happened, my father passed away, I joined a gym and did an event called “Stadium Stomp” which involved many stairs. I discovered the year or so before that a love of lifting heavy weights, and my best friends and I were starting to do obstacle races. Historically my exercise efforts lasted 1 or two months before something distracted me and I stopped.” (Sophia)

For Sophia, the loss of a loved person appeared to trigger the initiation of engagement. However, unspecified circumstances distracted her and she interrupted her engagement for a period of time. At a later time, she resumed engagement and this was when she found Fitocracy, according to her account. Thad described a similar event. A divorce led him to engage in regular physical activity:

“I got into fitness after my divorce. I had been married for 7 years and during that time I had let myself go. I figured there was no way I would be able to meet somebody in that state, being a single father already made it difficult and being out of shape didn't make it easier. So I spent a year and lost a little over 120 lbs mostly using dumbbells and working out from my living room.” (Thad)

Therefore, life events such as death of a loved one, divorce, or childbirth seemed to trigger lifestyle changes, including the decision to begin engaging in physical activity. On the other hand, life events could act as an inhibitor of physical activity, as Sophia described in her account. It appeared that emotional and cognitive engagement might still be present, although behavioural engagement fluctuated due to life events and circumstances.

Summary

Physical activity was a prevalent theme as it appeared throughout the other themes of engagement. Participants had the opportunity to be inspired by other customers to engage in a variety of activity types, which was beneficial for their physical fitness and overall health (Haskell et al. 2007). They engaged in value creation by embracing different ideas, viewpoints, accomplishing challenges, and learning lessons around physical activity which would impact their lives on the long term.

On the other hand, participants learned to prioritise maintaining healthy balances. They addressed possible value destruction from over-exercising, injury, or illness, by taking a break from physical activity when they thought it was necessary. Furthermore, participants used Fitocracy's planning capabilities to maintain balance and protect future value creation. Finally, life events and circumstances could provide a supporting

environment, involving triggers for positive value creation, or constitute major inhibitors in the maintenance of physical activity.

6.7 Concluding data analysis II

This chapter has provided a detailed description and analysis of the engagement processes contributing to positive or negative value creation within the spheres identified in Chapter 5. To achieve this, Brodie et al.'s (2011) understanding of customer engagement was adopted, which distinguishes engagement into emotional, cognitive and behavioural. Furthermore, Echeverri and Skálén's (2011), Grönroos and Voima's (2013), Minkiewicz et al.'s (2014) and Zainuddin et al.'s (2017) studies were combined to explain the main value creation processes: value (co-)creation, (co-)protection/(co-)recovery, (co-)inhibition, and (co-)destruction. Emotion terminology was drawn from multiple sources (Reeve 2005; Shaver et al. 1987; Izard 1991; Westbrook & Oliver 1991; Laros & Steenkamp 2005). Five themes were identified; activity tracking, gamification, socialising, relationships, and physical activity. Categories within the themes indicated areas of positive and negative value creation.

As demonstrated in the literature review, *“mobile apps may be considered a feasible and acceptable means of administering health interventions”*, as they are *“well received by users* (Payne et al. 2015, p. 2). By understanding in greater depth, the engagement processes that take part in value creation within existing apps, we may be able to make better use of these technologies in future behaviour change endeavours. The following chapter will add two different angles in an attempt to further shed light to the above processes.

7. DATA ANALYSIS III: MOTIVATION AND DEVELOPMENT OF VALUE PERCEPTIONS

7.1 Introduction

Until this point, the analysis has outlined the main engagement processes contributing to value creation, destruction, inhibition and recovery or protection. This chapter seeks to answer Research Questions 2 and 3, which play a complementary role, add depth to these processes and increase our understanding of them. In the first half of this chapter, Question 2 will be answered with an exploration of main constructs of the Self-Determination Theory (SDT), aiming to identify links between the engagement processes and motivation. The second part of the chapter explores Question 3. Firstly, it outlines a possible set of criteria used by participants to develop value perceptions at a given time. Furthermore, it discusses evaluation through comparison processes, perceptions of value when engagement becomes a habitual behaviour, often taking the form of loyalty, and finally the value of the engagement themes for participants' fitness journey and life.

7.2 Motivation

7.2.1 Introduction

This section responds to Research Question 2. Many authors discussed the motivational potential of gamification (e.g. Deterding 2011), while SDT (Ryan & Deci 2000) is prominent in gamification studies (Brühlmann et al. 2013; Kappen & Nacke 2013). SDT has been acknowledged by social marketers as well (Binney et al. 2006; Zainuddin et al. 2017; Mitchell et al. 2017), which implies that it may help address gamification in a language understood by social marketing scholars. This part of the study explores the main constructs of SDT, by considering the data from a motivational angle. It is based on the logic that intrinsic motivation develops throughout one's lifetime, while the possible directions it can take within a gamified system can vary and fluctuate over time, but always pertain to behaviours which are of inherent interest to a person (Ryan & Deci 2000).

7.2.2 Pre-existing motivational energy and direction

Although, since its early emergence, gamification has been considered as a powerful motivational tool when properly implemented (Deterding 2012; Sailer et al. 2013; Richter et al. 2015), studies have shown that intrinsic motivation does not increase significantly when game elements are added to a system, but task performance (Mekler et al. 2013; Mekler et al. 2017) or behaviour (Mitchell et al. 2017) increases. In this study, the participants gave evidence of pre-existing intrinsic motivation, which was directed towards physical activity, as well as other behaviours which were compatible with the engagement processes, identified in the previous chapter:

“I came across Fitocracy as I was actively experimenting with fitness apps many years ago. I am kind of addicted to trying out apps that I feel may improve my life in some way, but I am also guilty of paying for a lot that I have not even used once.” (Ken)

Ken had pre-existing motivational energy directed towards using well-being apps, a behaviour which is relevant to activity tracking. Other participants talked about their pre-existing fitness habits and goals for the future:

“I think I’ve always had specific bodybuilding-related goals. But in the beginning, it was more about weight loss and body recomposition. Later on, I did compete two years ago...haha yeah...and before that I also competed in powerlifting. And both of these sports, and especially I would say powerlifting, is something that Fitocracy seems to really reward highly when it comes to points.” (Irwin)

Irwin’s pre-existing motivational energy was directed towards a pursuit of various physical fitness goals, which can be considered compatible with the theme of physical activity. The distribution of game-like rewards on Fitocracy appeared to match with Irwin’s preferred activities. Some Fitocracy members were introduced to the platform by people from their close social environment:

“A friend recommended Fitocracy to me. He and I both were doing indoor rowing at the time, and he told me about the rowing group on Fitocracy.”

(Santo)

Santo’s pre-existing motivational energy was directed towards specific physical activity preferences, combined with maintaining a friendship. The corresponding themes for Santo would be physical activity and relationships, as his goals were shared with a friend. Floyd was previously interested in online gaming as well as physical activity and socialising with online players. Unsurprisingly, he found the idea of Fitocracy appealing:

“Previously was playing world of Warcraft with a tightly knit guild. A few of the members joined Fitocracy and then I joined. The thought of levelling and doing quests while doing fitness activities was exactly what I was looking for.” (Floyd)

Deci and Ryan (2008) talked about the importance of *“aspirations or life goals”* (p. 183) in the development of intrinsic motivation. For participants, pre-existing long-term goals would be linked to Fitocracy, which was a tool to help pursue them:

“I was about to kick off the new year with weight loss goals and thought the app would help keep me motivated.” (Wendy)

Some participants already belonged to real-life communities with specific physical activity interests. Therefore, their interest in socialising, relationships and physical activity found compatible engagement processes on Fitocracy:

“I was getting involved with a group of people that were looking into steel combat (in the SCA we use rattan weapons, which is like using wooden sticks, only with slightly more flex and a far safer failure mode). The 2 biggest initial findings were: 1) armour really works (that shouldn't have been so surprising), so hitting friends with steel swords and axes is far less insane than it may initially appear, provided that they are well armoured, and 2) decent steel armour weighs, like, a lot. The upshot of that was that a

lot of folks needed to invest financially in armour and time and energy in improving their ability to move under the additional load. And the people who had taken charge demanded a degree of accountability from everyone, so Fitocracy was brought up.” (Collin)

“so, I had joined already, as had a few others, but we weren't really in touch via Fitocracy at the time, and then quite a bunch joined and we even had a Fito group or two for a while.” (Collin)

The evidence suggested that in order for participants to engage with Fitocracy, there needed to be a pre-existing level of motivational energy, with directions that had the potential to match with the engagement processes which created value while on Fitocracy. Fitocracy seemed to support that motivation, through extrinsic rewards, as well as autonomy, competence and relatedness-supporting features. The idea of pre-existing motivation is consistent with Zainuddin et al.’s “*consumer readiness*” (2016, p. 591), which was deployed to explain consumers’ readiness to engage with self-service options in healthcare, often delivered through online platforms. Zainuddin et al.’s approach stemmed from Parasuraman’s “*technology readiness*” (2000, p. 308) and was developed further by Meuter et al. (2005). Although it was beyond the scope of the study to measure whether intrinsic motivation increased or was simply maintained, it appeared likely that engagement with Fitocracy played a part in its behavioural, rather than merely cognitive or emotional, expression within the engagement themes.

7.2.3 Basic psychological needs I: autonomy

As previously explained, autonomy “*refers to being the perceived origin or source of one’s own behavior*” (Ryan & Deci 2002, p. 8). The authors explained that the basic psychological need of autonomy is supported in environments where an individual is allowed to act “*from interest and integrated values*” (ibid., p. 8). Therefore, the first step to satisfaction of the need for autonomy was the realisation that customers’ previous interests, which can also be viewed as directions of pre-existing motivation, matched with one or more of the engagement processes involved in participating on

Fitocracy. Compatibility with their own beliefs, goals, hopes and values would also play a role in seeing Fitocracy as an autonomy-supporting environment:

“I’m pretty laid back, have a twisted sense of humour, love music, and I play some video games (good reason to get off my butt and exercise!).”

(Owen)

Owen’s account illustrated that his pre-existing interest in video games was compatible with engagement with game elements, but also his way of engaging in socialising had the potential to match with the Fitocracy community’s sense of humour. An autonomy-supporting aspect of the system was that it offered a variety of options, both in terms of people that someone could interact with, as well as engaging in different kinds of physical activity and getting rewards for tracking them:

“[...] as I am a more bodybuilding focused athlete, I’m not interested in getting a medal or a badge for swimming or running or that sort.” (Irwin)

“I also run, swim, bike, lift weights, and there were groups for all of those things on Fitocracy. Something for everyone. It was a good fit for me.”

(Santo)

As seen previously in the analysis, participants had a large variety of interests, and their levels of engagement with the themes could vary. The fact that a customer could choose to be from a ‘data-nerd’ who rarely interacted with other customers, to a socially active individual who would build long-lasting relationships through the system, was a characteristic of the system that facilitated the satisfaction of autonomy through allowing “*self-direction*” and offering “*choice*” (Ryan & Deci 2000, p. 70). In the areas of socialising and relationships, another aspect which could potentially enhance autonomy was the emotional support between customers, which was previously extensively analysed. As the authors explained “*acknowledgement of feelings*” (ibid., p. 70) tends to enhance autonomy.

7.2.4 Basic psychological needs II: competence

According to participants' accounts, the satisfaction of competence was supported by Fitocracy in a number of ways. As Deci and Ryan have explained in their published work on SDT, the need for competence refers to the sense of capability of an individual to be in charge of the results of their actions and efforts (Deci & Ryan 2002). As the authors pointed out, "*the need for competence leads people to seek challenges that are optimal for their capacities and to persistently attempt to maintain and enhance those skills and capacities through activity*" (ibid., p. 7). Furthermore, they specified that competence is not a skill in itself but "*rather is a felt sense of confidence and effectance in action*" (ibid., p. 7).

As explored in the previous chapter, when customers engaged with activity tracking and gamification features, they received different forms of feedback and rewards, such as progression metrics, points and badges for their achievements. As seen in 7.2.7, feedback and rewards are primarily considered sources of extrinsic motivation, as they constitute a "*separable outcome*" (Ryan & Deci 2000, p. 71) for which behaviour is performed. However, this is considered true when a reward is the reason for which a behaviour is initiated. According to the authors (ibid., p. 70) "*feedback*" and "*rewards*" when provided "*during action*", may "*conduce toward feelings of competence*", and as a consequence they may enhance intrinsic motivation. The latter means that, for participants who were already engaging in regular physical activity, feedback and rewards played a dual role; they constituted extrinsic motivation, potentially internalised (7.2.7), and they enhanced competence when provided for activities already or currently being performed.

On Fitocracy, "*a felt sense of confidence*" (Deci & Ryan 2002, p. 7) appeared to be enhanced through customers' engagement with gamification and activity tracking, by receiving meaningful forms of feedback indicating what they had accomplished:

"It is more a way to motivate myself by seeing how I have progressed and competing with myself." (Tyra)

Tyra talked about progression monitoring, and perhaps celebrating achievement would play a similar role in enhancing competence. Participants talked about feedback, and some compared feedback obtained from Fitocracy with their sense of achievement from engaging in physical activity without using Fitocracy:

“One of the things that I like about Fitocracy is that it gives immediate positive feedback to workouts, as opposed to the long-term benefits you find in exercise. I find that even in everyday situations, the fact that I’m logging the bike to work/airport means that I have a reason to push the pedals to get good speed.” (Harold)

Meaningful and timely feedback appeared to support competence satisfaction and kept the participants’ intrinsic motivation expressed as behavioural engagement with physical activity.

7.2.5 Basic psychological needs III: relatedness

The analysis revealed that engagement with social interactivity and relationships were important aspects of the Fitocracy experience. Several subcategories were generated under those themes, while it was noticed that participants would direct the interview towards the social aspects of the platform very often, even without being asked relevant questions. The findings indicated that there was a considerable potential for satisfaction of the need for relatedness, which refers to *“feeling connected to others, to caring for and being cared for by those others, to having a sense of belongingness both with other individuals and with one’s community”* (Ryan and Deci 2002, p. 7). For many participants, the realisation that the social aspect of Fitocracy was important to them did not happen initially, but emerged later in their engagement with the platform:

“I don’t think social accountability or sense of community was something I was looking for but as someone who generally finds themselves rolling my eyes back at social media I find myself feeling that social media where people encourage each other, get inspired from each other and learn from each other is something I am happy to be a part of even if I am not one of

the more overtly social members. Certain members have definitely helped boost my confidence and made me feel good.” (Ken)

As mentioned earlier, intrinsic motivation was more likely related to activities which were already of interest to participants. Through sharing interests with like-minded customers, they would feel satisfaction of their need for relatedness, which they would appreciate after the initial period of engagement:

“At first, I was only involved in the rowing group. Then I would see people in the rowing group posting workouts for things other than rowing, things I was also interested in, so I would join those groups as well. When I was younger, I would workout with people who shared a common interest. Now I mostly train alone, so it's nice to be able to still share those interests with a group, even if it is online.” (Santo)

The importance of relatedness was profound in participants’ accounts. It should be noted, however, that relatedness was not a requirement in order for people to engage in physical activity and create value individually. As Ryan and Deci specified, *“many intrinsically motivated activities are happily performed in isolation, suggesting that proximal relational supports may not be necessary for intrinsic motivation, but a secure relational base does seem to be important for the expression of intrinsic motivation to be in evidence”* (2000, p. 71). The authors’ explanation of relatedness support was precisely what Fitocracy could offer; *“a secure relational base”* (ibid., p. 71), in which people could connect, support each other and feel that they belonged to a social group.

7.2.6 Combined basic psychological need satisfaction

While certain aspects of customers’ engagement seemed to satisfy primarily one of the three basic psychological needs, participants would often present their engagement processes as satisfying more than one needs at once:

“You know working out on your own, not that it’s competitive, but you don’t see anybody doing the same activity, so it’s 1. Someone else is

pushing you beyond what you normally do, when you're working out on your own you can...one workout that takes you half an hour would take you one hour, an hour and a half because you just you know you're messing around and just you know you're not focused so being in a group environment I. There's a pace being set, someone else is making up routines for you, they're seeing your own activity, they're seeing what your level's at and they're there to push you a little bit more, and I think more so too is just that...again just the sharing of the experience someone to deal with an injury or someone there next to you saying "come on! You can do it! Just one more, two more!" or whatever it is those kinds of things help me when I have that environment where someone else is there just pushing me, you know giving me something to work towards. So, it's the group experience, whether it's Fitocracy or boot camp, it's nice to have other people there that can push you." (Lance)

Lance's account indicates that belongingness and mutual support, was combined with exchange of meaningful and timely feedback which would satisfy the participant's need for competence and relatedness simultaneously. Lance, along with many other participants, referred to friendly competition, which was also a representative example of the competence-relatedness dyad. Floyd explained how competition through duels would keep him motivated when he felt that motivational energy was depleted:

"Sometimes when I'm on vacation, or just plain unmotivated, I'll setup a duel to keep me honest. For example, if I'm going on vacation and still need to exercise, there's a group called "Find a Duel Buddy" and I ask if anyone wants to do a specific duel for a specific time. I'm fairly competitive so, I'll always try my hardest to win. :)" (Floyd)

For Sophia this combination resulted in greater likelihood of behavioural expression of motivation to exercise, since she could engage cognitively, emotionally and behaviourally with gamification, physical activity as well as socialising with another person, who could also be assumed to have a friendly relationship:

“There was also an element of competition for a while - I joined the same time as another lady and we often talked about who got to a level first. Not that it would push me to excess, but it might make me do a little extra.”

(Sophia)

In this example we can confirm that personal goals and healthy balances are valued highly by participants, when compared against game elements. As Sophia pointed out she would not go to excesses to achieve a levelling up, although this was important to her. Another common combination of need satisfaction occurred in group participation. Because customers could select to participate in groups which would match their own interests and beliefs, the need for autonomy was satisfied, combined with the need for relatedness which was satisfied inside the group. Harold talked about the experience of creating a group:

“An idea, a whim, a purpose. Creating a group is easy, gaining popularity could be much harder.” (Harold)

Furthermore, Santo talked about the importance of being able to join groups of people with shared interests:

“Sort of like Facebook, you can narrow your focus to only what interests you by joining groups or having specific friends. For the most part, you should find Fitocracy a helpful supportive place when you stick to your friends and groups.” (Santo)

Finally, Scott explained that the fact that his mindset was compatible with the Fitocracy community’s mindset, satisfied his need for autonomy and relatedness simultaneously:

“To Mike's point below, the gamification element of Fitocracy drew me in. I've often described Fitocracy as a hybrid of exercise, social media, and MMOs. I try to visit Fitocracy every few days / once a week to check in on what Fito-friends are doing and saying because the community itself is high-calibre. [...] I'm very glad I discovered Fitocracy, for I've met some

like-minded, and genuinely inspiring, people through this website. It's a great forum for people who have the right things in mind. Cheers!" (Scott)

7.2.7 Extrinsic motivation and potential for internalisation

In contrast to competence-supportive rewards for intrinsically motivated behaviour, Fitocracy's rewards were often the expected outcome of participants' activity. As Ryan and Deci explained, "*extrinsic motivation refers to the performance of an activity in order to attain some separable outcome and, thus, contrasts with intrinsic motivation, which refers to doing an activity for the inherent satisfaction of the activity itself*" (2000, p. 71). As there is a potential for internalisation and integration of extrinsic motivation, the authors emphasise that "*extrinsic motivation can vary greatly in its relative autonomy*" (ibid., p. 71). The main forms of extrinsic motivation observed on Fitocracy were game-like rewards, such as points, levels, leaderboards and badges awarded for achievements. For some participants expected rewards could be internalised, and were referred to as 'motivators':

"And as far as other gaming aspects that...I can be completely honest and say that there are times when I force myself to lift that extra kilo or do that extra set just to give myself those extra points...so that is in itself a motivator for me. For example, if I know there's a heavy lift for just one rep, I'll get to it just to beat my previous PR. That is sort of like a video game with achievements and so on; that is the feeling." (Irwin)

Due to the enjoyment of working towards rewards, there appeared to be a potential for seemingly extrinsic rewards to play the role of feedback and enhance intrinsic motivation. Sophia explained how rewards, combined with a relatedness-supporting environment may play a significant role in turning motivation into behavioural engagement with physical activity:

"I think personally it is a mix, just getting the badges and quests would not be enough motivation on its own, but having others acknowledge my achievements is what spurs me on. I love waking up to many people saying well done on a level, or quest etc. (I say waking up due to time zones - I get
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most notifications overnight). The points and level ups are the same, I am not sure they would push me on their own, but the acknowledgement from fellow Fitocrats pushes me.” (Sophia)

As Ryan and Deci explained, “*relatedness, the need to feel belongingness and connectedness with others, is centrally important for internalization*” (2000, p. 73).

Another example of internalised extrinsic rewards, were notifications for Personal Records:

“Another thing I love is the notification that I achieved a personal record, they spur me on. That is a personal motivation not requiring external acknowledgement.” (Sophia)

Internalisation may be attributed to the rewards’ alignment with a customer’s own vision and goals, which may support autonomy, as well as the sense of accomplishment of those goals, which nourishes the need for competence. This further highlights that a provider should focus on providing regular, meaningful rewards, updated as often as possible, which can be shared with other customers and facilitate the exchange of feedback.

7.2.8 Motivation depletion

The previous paragraphs have demonstrated the ways in which participating on Fitocracy could enhance intrinsic motivation by satisfying the needs for autonomy, competence and relatedness, or offer extrinsic motivation with good potential for internalisation and integration. However, sometimes pre-existing and platform-related motivation was insufficient to keep customers engaged in activity tracking for a long period of time, despite the fact that relatedness was supported by other customers through generous ‘cheerleading’:

“As I became a Fito enthusiast and went through a stage of talking about it all the time amongst friends, several friends followed me onto the site. By and large, they didn't stick with it, some for more-real-world good reasons than others (illnesses, unpredictable life crises), but most for just "losing

motivation". And that was despite me and other Fito members doing LOTS of cheerleading." (Derek)

Derek explained that, apart from situations where value creation was inhibited by life circumstances, depletion of motivation would come from the customers themselves. Derek and Collin, both talked about people from their close social environment who joined the platform after their recommendations, and eventually ceased engagement with it:

"So I suppose it was a lot like "homework" for some, so the moment that was no longer a requirement, they stopped doing it - while I joined with a bit of intrinsic motivation, and stuck with it. I noticed the same with my daughters, who I got to join, but they didn't stick with it - it hadn't been their idea." (Collin)

In the above example we can see that participation can be initiated through a recommendation from a customer - non-customer interaction in real life, with the risk of loss of motivation, since this is not the non-customer's idea. Non-customers may or may not be sufficiently intrinsically motivated towards activity tracking, and even physical activity, before joining Fitocracy. Collin offered a different perspective to the discussion about depletion of motivation:

"And I've found that reaching a goal can be demotivational, too. I know that once I managed the "true century push" my keen pursuit of push-ups lapsed and I've only recently brought it back up to 50. but then I suppose that's more broadly true for goals - I know a few people who worked towards their black belt in a martial art with considerable diligence only to drop out shortly after reaching that goal." (Collin)

The above example could be interpreted in a number of ways. In the literature, the impact of rewards on intrinsically motivated behaviour has been highly debated (Kohn 1999; Ryan & Deci 2000). On the one hand, rewards in the form of encouragement of a behaviour along the way enhance competence (Ryan & Deci 2000); on the other hand, when rewards become the reason for the behaviour to be performed, they fall

into the category of extrinsic motivation (ibid.). If the individuals mentioned in Collin's account were highly intrinsically motivated from the start, the account is consistent with Kohn's ideas, according to which "*the most destructive way to use extrinsic motivators is to offer them for doing something that is potentially interesting in its own right*" (Kohn 1999, p. 87). Therefore, a black belt in martial arts or a badge for performing a certain number of pushups could motivate a person to put a high amount of effort into an activity, and when the goal has been achieved, experience depletion of intrinsic motivation along with fatigue. Another possible interpretation could be that the person was insufficiently motivated from the start and therefore disengaged from the desired behaviour after reaching these goals.

7.2.9 Motivational energy directed towards the themes of engagement

Until this point the analysis of motivation has explained that motivation could be pre-existing, and its development and expression could be facilitated by an autonomy, competence and relatedness-supporting environment, which would also offer meaningful extrinsic rewards. The above refer to motivational energy which had the potential to be directed towards the themes of engagement identified in the previous chapter. During my participation on Fitocracy, I observed that the themes were closely linked to one another, and my motivation to engage with Fitocracy, even from a researcher's standpoint, quickly began to take all possible directions, something that happened naturally and without following a strict plan. Raymond presented my observations from his own experience:

"I was determined not to interact and just use the tracking and knowledge base given my poor experiences interacting on the other sites. The premise and basis for the site does suck you in though, I liked the points and the badges / quests as I felt like it set a level playing field to match yourself against others.

The badges and the quests were also a great way to recognize your progress. This was excellent. I could appreciate the effort and it was motivating to compare points. What I did not expect is how it also would

force interaction; people here are pretty well informed and would comment on specific accomplishments, aspects of your workouts, PRs, etc. It made you want to interact and made you feel comfortable. Before you know it, you are asking questions, feel comfortable enough to post pics as you level up, and then for some reason you are posting and scrolling through the cat pics.” (Raymond)

Raymond’s account indicated that, even if participants thought that they knew which themes of engagement were compatible with their previous interests, they were likely to find more when they began to engage with Fitocracy. Raymond described a number of positive value creation processes. This may mean that when value creation is positive within a category of engagement, pre-existing motivational energy is likely to take that direction.

Pre-existing motivational energy can change preferred directions over time, as life circumstances may interfere, for example when someone needs to prioritise their limited time, or need to limit engagement with physical activity due to health-related barriers. Another example is when there are changes in preferences, or when engagement with one theme influences engagement with another theme, thus influencing the direction of motivation. In Sophia’s response, illness seemed to reduce her engagement with physical activity at some point, while overall engagement in gamification directed her motivational energy to physical activity, by influencing her choices of activity:

“I decided I wanted a web-based exercise tracker so I could keep a record of my progress - a 90kg deadlift was one of my goals. In my research I came across a review of Fitocracy and thought it was worth a try. I loved it! I quickly became addicted to points, level ups and getting props! Next came the quests. Shortly after that I got more involved in the social side. I did restart with a new profile a couple of years ago (I think) after a longer illness lost a lot of my strength. Being on Fitocracy keeps me much more accountable than anything I have tried in the past. I am actually not a

'gamer' but I do love the gamification of exercise that Fitocracy provides. I still can't resist doing extra when I am close to a level up. And quests have me doing all sorts of things I would not normally do.' (Sophia)

Fitocracy may encourage behavioural, rather than merely emotional or cognitive, expression of motivation:

"It's still motivating to me in actually getting off my butt and doing my workout." (Jane)

It appeared, therefore, that although Fitocracy may not initiate the development of intrinsic motivation, when it existed, it could help people maintain its behavioural expression:

"Fitocracy has helped me keep going back to exercise. Without it, back in 2013 when I joined would probably have been another few months of workouts and then stop.

If I don't work out, I don't feel I belong on Fito. And I want to belong. So, I work out. Not as often right now as I want to. But I do more than I would with no Fitocracy." (Sophia)

The idea that Fitocracy may encourage behavioural expression of motivation rather than solely cognitive or emotional, particularly in the theme of physical activity, is consistent with Werbach and Hunter's initial thoughts about Fitocracy: *"For Fitocracy, gamification is the key in moving users from merely wanting to exercise to actually doing it"* (Werbach & Hunter 2012, p. 53). However, as demonstrated in the findings of the study, gamification is not the only key, but aspects of all themes which help maintain or enhance intrinsic motivation or offer potentially internalised extrinsic motivation.

7.2.10 Motivation changing direction away from Fitocracy

The fact that many customers eventually disengaged from the platform, did not necessarily mean that their motivation was depleted. Firstly, as seen in the theme of

physical activity, external circumstances may result in disengagement from physical activity. In the same way we can assume that circumstances outside of the system would have an impact on people's engagement with the platform. Sometimes, as pointed out by Derek, customers would make the most out of the platform and then move on to the next step in their fitness journey:

“but as an old timer I'm also aware that some of that comes down to the fact that not everyone 'needs' Fitocracy for more than a year or two, and many people disengage naturally at some point.” (Derek)

In this case, motivational energy might not change, but people's intrinsic motivation simply changed direction, resulting in their disengagement from the themes of value creation of Fitocracy. Other reasons for change of motivational direction have already been found in the analysis. A disappointment with the provider's features, or the community in terms of numbers, fairness of self-reporting, disputes or culture shifts could be reasons for Fitocracy customers to search for other directions. Finally, as will be explained in 6.3.3., the comparison between Fitocracy and another provider could help customers assess the perceived value of both, and possibly lead to choosing the other provider.

7.2.11 Conclusion

The findings indicate that there is a need to look at intrinsic motivation beyond techniques and features considered as buttons to be pressed. As implied in its original conceptualisation, intrinsic motivation refers to one's inner willingness and energy to grow, learn, improve oneself, and engage in social and productive activity (Ryan & Deci 2000). It therefore finds many directions of expression throughout one's life, while some environments facilitate its expression and potential enhancement, and others may risk lack of expression and even depletion of intrinsic motivation. The key for people to join and remain on Fitocracy appeared to be the common ground between pre-existing, familiar directions and the directions offered within the gamified system. Future research could explore further how to establish that connection, rather than attempting to increase intrinsic motivation by gamifying tasks which are unfamiliar

and potentially uninteresting to study participants (Mekler et al. 2013; Mitchell et al. 2017; Mekler et al. 2017). Consumer research can focus on identifying pre-existing directions of motivation which could be matched with components of social marketing interventions.

According to participants' responses, the key for people to maintain engagement with all the themes of Fitocracy, including physical activity, was the combined satisfaction of the needs for autonomy, competence and relatedness (Ryan & Deci 2000), which may happen through the provision of meaningful, fair and regularly updated game-like rewards (Werbach & Hunter 2012). This could be taken into consideration, both when designing and updating a gamified system, and when selecting an existing system to be used for a social marketing intervention. A prevalent psychological need, which appeared to enable internalisation as well, was the need for relatedness, a finding which is consistent with previous studies (Hamari & Koivisto 2013; Hamari & Koivisto 2015). The recommendation for emphasis on the social components of gamified systems for physical activity (Tu et al. 2018), has been further supported in this study.

7.3 Developing value perceptions

7.3.1 Introduction

The following paragraphs respond to Research Question 3. The previous chapter described the main value creation processes. This section considers how customers understand and assess the value which is created through engagement. Firstly, I attempt to explain how participants assess their perceived value at a given point in time; that is, on the day of the interview. To achieve this, I refer to extant literature on the dimensions of perceived value. Secondly, I explain that value perceptions were often influenced by cognitive comparison, for example between the past and the present, between Fitocracy and other providers, or between Fitocracy and no provider. Thirdly, I identify a pattern of attachment to Fitocracy, and engagement processes becoming habitual behaviours often accompanied with positive emotions towards the experience. Consequently, I discuss the notions of habit and loyalty as a perspective of

developing value perceptions. Finally, participants tended to put Fitocracy in stories of their journey in fitness and their life. I talk about this broader picture, and acknowledge it as a way through which participants developed value perceptions as well. The above are not distinct categories, but interrelated, similar to the themes in the previous chapter. They constitute a means of approaching and explaining a construct as dynamic as perceived value. Figure 7.1 illustrates the main cognitive processes through which participants developed their value perceptions, as well as the dimensions of perceived value as identified in their responses.

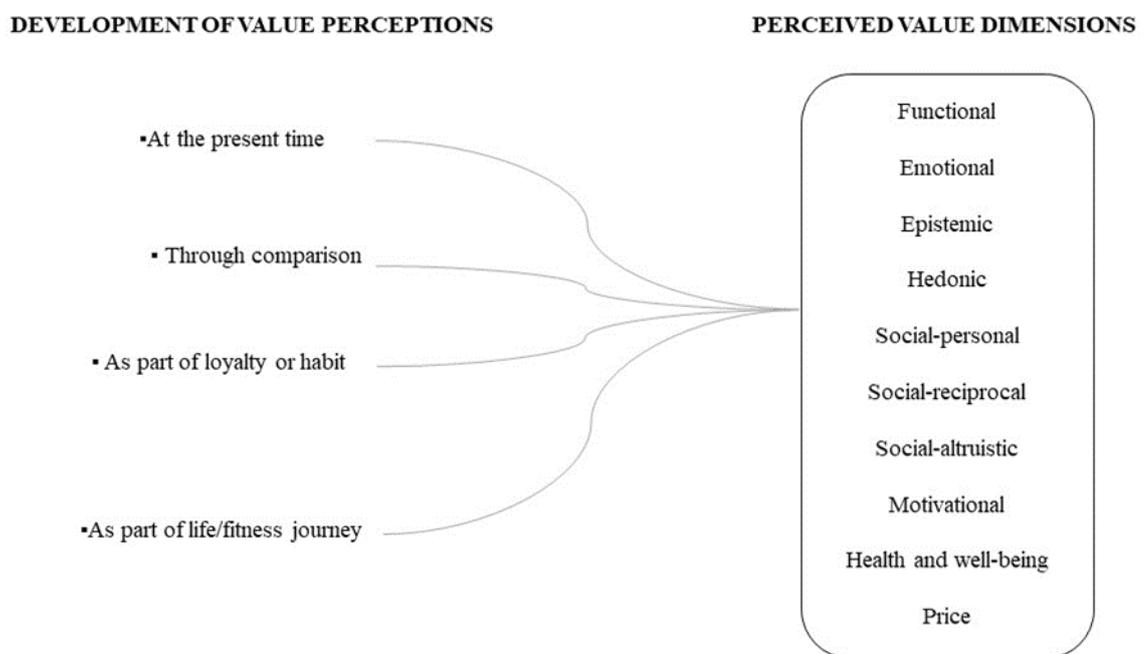


Figure 7.1: Development of value perceptions and identified dimensions of perceived value on Fitocracy

7.3.2 Perceiving value at the present time: an exploration of social marketing's value dimensions

Perceived value has been viewed by scholars as dynamic and complex (Sánchez-Fernández & Iniesta-Bonillo 2007). However, if asked at a given point in time,

participants would give an overall picture of the value that they thought they acquired from the engagement processes involved in being a member of Fitocracy. Marketers have considered perceived value as either uni-dimensional or multi-dimensional (ibid.), while social marketers have largely adopted the multi-dimensional standpoint, as explained in the literature review (Zainuddin et al. 2011; Zainuddin et al. 2013; Mulcahy et al. 2015; Zainuddin et al. 2017; Gordon et al. 2018). The value dimensions found in the literature, have been adapted and extended to enable the analysis of the findings. Table 7.1 presents ten value dimensions and indicates whether they appeared to be prevalent or of secondary importance in each of the themes of value creation, according to observations and participants' responses. The following concepts were adopted:

- **Functional value:** is defined as “*personal utility acquired from an alternative’s capacity for functional, utilitarian, or physical performances*” (Sheth et al. 1991, p. 160). It is acquired primarily through engagement with activity tracking and gamification, as it is linked to the practical usefulness of the system’s features for customers’ workouts.
- **Emotional value:** is “*the perceived utility acquired from an alternative’s capacity to arouse feelings or affective states*” (Sheth et al. 1991, p. 161). It is acquired through all themes of engagement, because they all have the potential of “*precipitating or perpetuating*” (ibid., p. 161) positive emotions.
- **Epistemic value:** is the value acquired when an engagement process has the “*capacity to arouse curiosity, provide novelty, and/or satisfy a desire for knowledge*” (Sheth et al. 1991, p. 162). Epistemic value was a main value dimension derived from all themes.
- **Hedonic value:** also referred to as “*fun*” (Holbrook & Hirschman 1982; Holbrook 2006), has been considered in social marketing as a combination of the value acquired from a game’s “*aesthetics*” and “*playfulness*” (Mulcahy et al. 2015), based on Holbrook’s (2006) conceptualisation. However, McGonigal (2010) and Deterding, Dixon et al. (2011) proposed the term “*gamefulness*” as more suitable for games and

gamification respectively. Considering that participants mentioned humour, which is a form of play (Martin & Ford 2018), aesthetics, and value from game elements, hedonic value in this analysis involves all three concepts: aesthetics, playfulness and gamefulness. Hedonic value was acquired from all engagement themes. In physical activity, it could be a main or a secondary form of perceived value, depending on the type of activity, and the individual's perception of it. For example, rock climbing could be perceived as more playful than running.

- **Social value:** social value was previously assigned the meaning of “*the social image evoked*” than the “*functional performance*” of a product or service (Sheth et al. 1991, p. 161). However, this conceptualisation encapsulated only a small part of the social value for an individual on Fitocracy. Based on participant's responses as well as relevant literature (Holbrook 2006; Zainuddin et al. 2011; Zainuddin et al. 2017), I identified three forms of social value:

Social-personal value: Sheth et al.'s (1991) conception of social value is consistent with the value of showing one's achievements to other customers, as they were displayed on the profile page. Another form of social value emerged when customers actively engaged in socialising primarily for personal benefit. For instance, when they were trying solve a problem or find a piece of information, without offering a contribution back to the community. Any form of value acquired through the social aspect of Fitocracy, translating in individual benefit will be referred to as social-personal value. It was mainly acquired from the customers' engagement with activity tracking, gamification and socialising. In cases when physical activity was performed to be displayed, for example in power-lifting competitions, social-personal value was related to the theme of physical activity as well.

Social-reciprocal value: in online community-based interventions, perceived value appears to emerge from belonging to a community and offering as well as gaining personal benefit. Zainuddin et al. (2017) suggested the term “*community value*” to address this gap. However, on Fitocracy, value derived from reciprocity could emerge from socialising and relationships within as well as beyond the Fitocracy community;

for example, with someone's friends, online friends on other platforms, or family members. Therefore, any form of value, acquired from the social aspect of the themes of engagement on Fitocracy, related to mutual benefit, is referred to as social-reciprocal value. It was mainly acquired from the themes of gamification, when customers engaged with social game elements, such as challenges and duels, as well as socialising and relationships. Depending on the type of physical activity, it could be acquired from physical activity as well; for example, when a customer acquired perceived value from contributing to a team while doing a team sport.

Social-altruistic value: Following Holbrook (2006), Zainuddin et al. (2011) recommended the notion of "*altruistic value*" in social marketing, which referred to the value acquired from offering benefit to other people. In this analysis, such value has been termed as social-altruistic value, in order to highlight that it is connected to human interaction, similar to social-personal and social-reciprocal value. It was mainly acquired from engagement with gamification, particularly customer-generated, socialising and relationships.

- **Motivational value:** refers to participants' perceived added motivation to engage in physical activity, which they acquired from engaging with Fitocracy. To the best of my knowledge, it has not been mentioned in the social marketing literature as a dimension of perceived value, until the present time. When compared to the analysis in the first part of the present chapter, perceived motivation represents a small part of our understanding of motivation, as it is only directed to physical activity. However, it reinforces the belief that engaging with Fitocracy helps existing motivation to be expressed behaviourally towards maintaining a desired behaviour. Motivational value emerged mainly through engagement with activity tracking, gamification, socialising, and relationships.
- **Health and well-being:** according to Johnson et al. (2016), gamified apps for health appeared to enhance people's well-being by offering positive experiences. In this study well-being was a dimension of perceived value, but it was primarily enhanced by physical activity, socialising and relationships, since relatedness and emotional support

were perceived as beneficial for one’s mental well-being and physical activity was beneficial for their physical health as well as mental.

- **Price:** refers to paying customers’ sense of value for money. It is related to Sweeney and Soutar’s “*functional value (price/value for money)*” (2001, p. 211), and it represents Zeithaml’s (1988) monetary sacrifice, understood by the phrase “*value is the quality I get for the price I pay*” (p. 13). As the additional features offered with a paid membership belonged in the themes of activity tracking and socialising (private messaging), perceived price value was mainly acquired from engagement with these themes.

THEMES	PERCEIVED VALUE DIMENSIONS									
	Functional	Emotional	Epistemic	Hedonic	Social-personal	Social-reciprocal	Social-altruistic	Motivational	Health and well-being	Price
Activity tracking	prevalent	prevalent	prevalent	prevalent	prevalent	secondary	secondary	prevalent	secondary	prevalent
Gamification	prevalent	prevalent	prevalent	prevalent	prevalent	prevalent	prevalent	prevalent	secondary	prevalent
Social interaction	secondary	prevalent	prevalent	prevalent	prevalent	prevalent	prevalent	prevalent	prevalent	prevalent
Relationships	secondary	prevalent	prevalent	prevalent	secondary	prevalent	prevalent	prevalent	prevalent	secondary
Physical activity	secondary	prevalent	prevalent	Depending on type of activity	Depending on type of activity	Depending on type of activity	secondary	secondary	prevalent	secondary

Table 7.1: Value perceptions developed through the processes of value creation on Fitocracy

The dimensions of perceived value are illustrated in participants’ responses:

“The combination of a good workout tracking functionality, community support and accountability, and a point system really makes this app a powerful tool to me.” (Carsen)

Carsen explained that he perceived value as a combination of functional value from activity tracking, social-personal and social-reciprocal from socialising, as well as hedonic and functional from gamification. Carsen’s idea that customers could hold each other accountable to maintain their engagement with physical activity, was perhaps the most prevalent form of social-reciprocal value. Functional value appeared important, hence some participants mentioned that the reason why they were willing to pay for a Hero account was to be able to view their weekly statistics:

“I’ve only paid for one year and my year’s not up yet but I think I am getting close to a year and I just decided to do it because really I just wanted to get those stats that you get every week? [...] I mean I know it’s a little bit of money but I...I like the stats because it just kind of reinforces my progress, and what I’ve done over the past week and then I can see things that I’m doing better on.” (Olivia)

Olivia discussed about her perceived price value, which she considered high as it was linked to the additional functional and motivational value she acquired from engaging in activity tracking, by paying a membership fee. On the other hand, Helen talked about the perceived hedonic value, in terms of aesthetics and gamefulness, combined with functional value:

“I love the graphic. As crazy as that is, that little Fred guy that pops up when you’re done? I love Fred! So yeah...It’s just for me been the most user friendly?” (Helen)

Helen’s perceived value outlined in the above quote was acquired from engagement with gamification and activity tracking through the website. Olivia spoke about the value she acquired by learning from other customers’ activity tracking:

“I have gotten a lot of new ideas for exercises and exercise routines from other Fitos. It’s helped my confidence and the site definitely keep me motivated. I don’t think I would have as much motivation on my own.” (Olivia)

Olivia explained that she obtained epistemic value as well as emotional and motivational value, from engaging in activity tracking and possibly gamification. Shauna expressed her thoughts about the social aspect of Fitocracy. She emphasised the social-personal and epistemic value in obtaining knowledge from the community. In addition, she talked about social-reciprocal value of a supporting community, where there is an indication of emotional value from a positive affective state as well:

“[The social side of Fitocracy is] super important for me. There isn't anyone in my rl circle who is into lifting, or even fitness. Fito is the only place where I can discuss these, and receive advice. Groups like Lady Lifters are invaluable to me, for the knowledge and support of the members. It's also a great community for things not related to fitness. People here are usually very accepting, liberal and supportive of others and it is a safe place to vent and share about life in general.” (Shauna)

Mike provided an example of participants' perceptions of social-altruistic value:

“For me, and a lot of others as well, there's the desire to give back too. Groups enable the guy who was asking questions to become the guy answering them over the course of a couple years. I don't really have any desire to run a fitness blog or something, but I do like being able to help people out and provide information.” (Mike)

In the above quote it becomes evident that for some participants, social-personal, epistemic and social-reciprocal value would create the desire to contribute back to the community by offering epistemic value in the form of information and knowledge to the best of their abilities. From other participants' responses, it became apparent that altruism was well-received. Lance explained that other customers' altruism, not only helped him acquire epistemic, social-personal and emotional value, but potentially perceived value of health and well-being:

“You know yeah! That's one thing Fitocracy is good at, if you have a question whether it's regarding supplements, whether it's regarding exercise form, maybe places to go on a hike, you name it! Like pre-workout supplements, or anything! Stretches, strengthening exercises for certain things if you have an injury like you guys you know like asking “I have a shoulder injury, this is where it hurts, you guys can you recommend a certain stretch or exercise for it” ...it's a huge resource if you just have a general question of something you don't know so...Fitocracy has been great at that.” (Lance)

Lance's account about learning to work around, or to heal one's injuries was a common path through which engagement with socializing and relationships enhanced participant's perceived health and well-being. Participants explained their perceptions of health and well-being as a feeling that their strength was gradually increasing and their body was improving:

"I think that...the weight loss is still a goal of mine but I'm not beating myself up over it if that makes sense? If I'm getting stronger and my body is changing and I'm getting healthier in different ways I've started to...make myself realise that that's a good thing too." (Olivia)

Olivia talked about the role her engagement with physical activity played in her perceived health and well-being, as well as the emotional value of realising and appreciating this improvement. Finally, Santo's account summarised the meaning of perceived motivational, combined with hedonic value, as well as social-reciprocal and epistemic value:

"I'd be a liar if I said none of that stuff [game elements] was important. I'm pretty self-motivated to work out, but sometimes find myself doing a bit more than I normally would because I know I will get a few more points for it. So, for me, it gives me a little extra motivation, but is not my entire reason for working out or for being on Fitocracy. I like the camaraderie, the inspiration, and the exposure to new ideas. The points and badges are icing on the cake, a nice addition. But that's just me." (Santo)

Engagement with gamification enhanced hedonic and motivational value, while through engagement with socialising Santo acquired social-reciprocal and epistemic value (knowledge).

Until this point, the main dimensions of perceived value have been outlined, explained, and illustrated with quotes. It must be noted, however, that value perceptions could vary over time. People perceived different engagement processes as generating more value for them than others:

“Honestly though, at this point, the points, levels, achievements, and quests don't do much for me [...] So basically, the gamification is what got me hooked, but it's not really what sustained me long term. It kept me going just long enough to find my niche and my groove, and when the joy of getting points and "levelling up" on a website ran out, the joy of chasing a 400 pound squat took over.” (Mike)

Mike described a change of preference from gamification to activity tracking, and reported a higher level of perceived emotional and motivational value acquired from the latter, while gamification was his preference when he joined the platform for the first time. Carsen, on the other hand, moved to the opposite direction, and acquired higher perceived value from gamification as opposed to activity tracking over time, while the potential of gaining social value was unknown to him at first:

“I downloaded Fitocracy in Dec 2016 and originally didn't even realize there was a community or gaming side to it. It's ironic that these features are actually what I am starting to enjoy more than the tracking feature. I must say though, the whole point and level system seemed silly to me at first, but now I am beginning to pay attention to points and levels more and more.” (Carsen)

The most common change was the shift from activity tracking and gamification towards the themes of socialising and relationships:

“a big part at the beginning was liking the ability just to log in my exercises and to...to get points to...to achieve certain levels...for 'ever reason I liked that aspect of it as far as getting points and achieving a higher level and just progressing that way. After doing that, I really liked the ability to communicate with others on Fitocracy so that was nice too, the social aspect and being able to communicate with other people, doing other things and joining groups on there so it was...is...it started off just more of the points keeping track of what I was doing and getting better at

what I was doing but then it really...I guess it evolved into more of the social aspect as well.” (Lance)

Lance explained that during his early phase of engagement he derived a higher level of perceived value from engaging with activity tracking and gamification, possibly emotional, functional and motivational. Later, his preferred themes of engagement changed to socialising and relationships, through which he acquired high levels of perceived emotional, social-reciprocal and epistemic value.

7.3.3 Perceiving value through comparison

An additional perspective from which participants assessed their levels of perceived value, were certain types of comparison. As suggested by Zeithaml, “*evaluations of quality usually take place in a comparison context*” (1988, p. 5), and as Eggert and Ulaga pointed out, “*value is the result of a cognitive comparison process*” (2002, p. 110). Comparison was evident across the themes and took many forms, but three types of comparison were the most prevalent: comparing the present to the past, comparing Fitocracy with other platforms, and comparing using Fitocracy to using no app at all.

Comparing between past and present on Fitocracy

Participants compared mainly their engagement with gamification and socialising and noticed changes in perceived value from these themes. As explored in the theme of gamification, rewards became scarcer the more advanced a customer became:

“Well, I recall that early period where I’d level up several times a week, then every few weeks and now I expect it’ll level up one more time this calendar year.” (Collin)

Collin explained that there was some nostalgia for the ‘good times’ when rewards were more frequent. For participants with similar viewpoints, emotional, epistemic, hedonic, motivational and functional value from engaging with gamification could be perceived as lower over time. In terms of socialising and relationships, the three forms of perceived social value seemed to be perceived as lower during Fitocracy’s plateau phase, as opposed to the peak phase:

“I'm actually quite shocked by how things turned out. Instead of becoming busier Fito seems to have died a bit. There seem to be less meetups. And even socializing overall. For example, on Friday and Saturday nights the singles group would have hangouts, skype, watch movies together, all kinds of things. It's strange to see it as it is now.” (Thad)

According to Thad, Fitocracy used to be busier but it was now quieter. He mentioned that he used to have more opportunities of socialising, joining meetups, bonding and building relationships. Janiya expressed a more extreme opinion:

“If I were a new person starting now, I don't think I would have stuck around. The community is just more quiet and those that are left can be harsh or not come off as welcoming.” (Janiya)

Her account indicated that although she maintained engagement with the platform, she believed that new members would not see sufficient social value and they would quickly disengage.

Comparing Fitocracy with other platforms

Participants compared Fitocracy with other activity tracking providers, both websites and apps, which could influence their decision to maintain engagement with the platform after the initial registration:

“I actually started with another Fitness app called Fleetly before deciding that Fitocracy was the best fit for me.” (Ken)

Ken reported that his decision to stay on Fitocracy was the outcome of its comparison to Fleetly, implying that engaging with it provided higher perceived value. Other participants emphasised the importance of social value as a criterion of comparison:

“So, I was using some other website, I think it was Bodybuilding.com, at the time to log my workouts, just to keep a record of that stuff and also because the Bodybuilding.com...they did a lot of photos; they wanted to show progression and stuff. And at that time...so she [my friend] told me to

start using Fitocracy and I noticed there was a big difference between what Fitocracy was about and what Bodybuilding.com was about. Fitocracy was about the social aspect, it was about other people. And it was actually a much better site, they set it up to log your workouts easier, and that might have been by accident to tell you the truth. But the social aspect of Fitocracy versus Bodybuilding.com was much better. It was definitely more community-based and that's what I really enjoy; is being around people.”
(Rowan)

It was often mentioned by participants, that people in their environment were not as positive towards their physical activity habits as the customers of Fitocracy. These people could be Facebook friends, and the participants expressed their reluctance towards sharing their workouts with them:

“The people that I see in real life, who...who...when I...I publish my little...my workout log I take a picture of it. And I post it on my Facebook page, every time I do it. And so many people my age think that it's the most bizarre, ridiculous, obsessive, compulsive, oh my God, why do you do that, that is not...you're gonna get huge! Which is so not true...so the negative feedback in my real world! I am pretty good about...I am pretty set on I know this is what I need to do for me it's almost like how I live...but it is nice to be kind of immersing in a social environment where people approve of what you're doing! Or you know...or even like my workouts too.”
(Helen)

In addition, Fitocracy appeared to be friendlier than more specialist sites where customers were focused mainly on optimal performance:

“They were more sociable, whereas a lot of guys at Bodybuilding.com were bodybuilders. Serious bodybuilders. I mean, they were nice, I've never had any bad experience on it but they were definitely more...I'd say less fun.”
(Rowan)

“Well, I’ll tell you, the other site I’ve been on...where if you would ask a question and be like hey what does this exercise really mean or I’ve never heard of it or is it supposed to feel this way...sometimes you get a reaction that’ll like...make you feel stupid like you should know this. Look if I knew this I wouldn’t be asking. And if I knew everything, I wouldn’t be on here, I would probably have my own site. And it’s not everywhere that you short of get that, bro mentality I guess they call it where... you should know all this. Don’t ask a question, don’t ask a stupid question.” (Raymond)

Rowan compared Fitocracy with a platform in which engagement with socialising was focused on obtaining more epistemic value and very little hedonic value. He preferred socialising on Fitocracy, because people were more ‘fun’. Raymond, extended this viewpoint further, by saying that among a specialist group of people, it was hard for someone with less experience to ask questions and obtain epistemic value. According to Raymond this is interpreted as a cultural difference as well.

Furthermore, participants compared platforms based on their functional value:

“I have checked out a few workout tracking apps, and found Fito to be the easiest to use. I’m sure there’s newer ones out now, but I haven’t felt a need to explore other options. I like the way the workouts are tracked cleanly, and less cluttered. Some apps require you to enter too many things. I like to not spend more than a few seconds on logging a set.” (Zoey)

Zoey reported that her engagement with activity tracking generated high levels of functional value, compared to her previous experience. Engagement with activity tracking and gamification generated apart from functional, hedonic and emotional value as well, as Tyra explained:

“I don’t know if the gamification/points necessarily motivate me, but it is more "fun" than other tracking methods which I like. There is always some satisfaction when that cute little robot pops up and tells me I’m Awesome!” (Tyra)

Comparing using Fitocracy with not using any activity tracking app

It appeared that many participants engaged in activity tracking before using any activity tracking systems:

“I used to keep my workouts in notes, like a notepad, and in the beginning, I think I first wrote it down in a notepad and then I did it to Fitocracy. But the benefit of Fitocracy was that you can see your progressive overload over time. Which is easier than just comparing notes, so I could like see that oh two weeks ago I did this. So, like I should probably add into it another rep or something, you know, in order to achieve progressive overload.” (Irwin)

Irwin compared keeping his workouts in notes with using Fitocracy. Engaging with activity tracking on Fitocracy, specifically with progression monitoring, generated higher levels of perceived functional and motivational value than ‘pen and paper’ note-keeping. Victoria’s account demonstrated a similar viewpoint:

“Later I joined CrossFit and started tracking the workouts through a rather convoluted spreadsheet. Six months later I left CrossFit and joined a strength & conditioning gym on a week trial which forced me to keep a workout journal. I was feeling very positive about writing my workouts down but wanted something more beyond pen and paper and searched for an app. The first one I came across was Fitocracy and I’ve never looked back.” (Victoria)

Victoria used a pen and paper approach and later transferred her notes to a spreadsheet. She seemed to acquire noticeably higher level of functional value from engaging in activity tracking on Fitocracy. Finally, as mentioned in the previous chapter, participants compared engagement with the social aspects of Fitocracy, against their relationships and connections in real life, outside of Fitocracy:

“It was difficult feeling motivated without anyone in real life close to me that are into fitness, but I persisted because I had a chip on my shoulder.”

However, once I reached my weight loss goal, I continued because of the online community as I no longer felt like I was alone.” (Zoey)

Zoey explained that her perceived motivational, social-personal and social-reciprocal value were higher when she engaged with socialising and relationships on Fitocracy, than when she did not engage with the platform and interacted only with her real-life social environment. Social-personal and reciprocal value were so important to her, that when her fitness goals had been accomplished, she continued engaging with Fitocracy, attributing it to the online community.

7.3.4 Habit and loyalty

When engagement processes were positively evaluated, participants tended to repeat them over time, leading to habitual behaviour. According to previous studies (Kim et al. 2005; Ottar Olsen et al. 2013), habit and repetition may lead to automatic behaviour, which may, after some time, cease to be an outcome of a customer’s conscious evaluation. Indeed, participants tended to use the system out of automaticity, but also appreciated the value of this habit in their daily routine. It appeared that when emotional engagement seemed higher, habit took the form of loyalty, as it presented characteristics known to marketers as brand loyalty (Jacoby & Kyner 1973). Therefore, in repeated behavioural engagement, there was a continuum between habit and loyalty, where the more a customer was emotionally and/or cognitively engaged with the platform, the closer they were to the side of loyalty, and the higher they valued their engagement overall. This positive attachment with the Fitocracy brand, expressed as habit and loyalty, was evidently linked to the habit of physical activity.

Habit

For Tony, engagement with Fitocracy was primarily habitual, and it was linked with his exercise routines:

“Anyway- the app was great at building some habits early on, and I LOVE the visualizations you can pull out of it (IRM tracking over 5+ years is cool

as hell to see...), but it's just a part of my training toolset now, instead of helping build any real new habits.” (Tony)

It is evident in the quote above, that engagement with activity tracking led to the acquisition of a steady and expected level of functional value. The idea that habitual engagement with Fitocracy was linked to habitual engagement with physical activity emerged in many participants’ accounts:

“It has become a habit to post my activities on Fitocracy. As I mentioned, Fitocracy helps keep up my motivation, so by constantly staying active...even just a little...I log on and eventually get a workout program started again. I've found that the push-up challenge group (and other such groups I may join) help me in keeping at least a little bit active and coming back to the website.” (Owen)

“I'd say it's mostly like a public workout diary. I tend to log my workouts first thing, before checking email and attending to work tasks (desk job). I'd say it provides support to regular exercise -- psychological scaffolding to help keep me regular.” (Zack)

In addition, there were groups with themed days which encouraged habitual behaviour:

“Monday through Friday it is basically the same routine for me.

4:00 - 4:20 AM - Log on to the app, check notifications as I pack gym bag and feed the damn cats. [...] Just for reference, I will routine focus on most of the theme days. I will do TMI Tuesdays for time to time, I also make sure I check out Flex Friday, there are a couple of closed groups that have Friday and Monday themes and I will be sure to check them out and try to interact.” (Raymond)

In Raymond’s response, it was observed that engagement with socialising, within themed groups, was beneficial to participants who were looking for a way to establish weekly habits. Social-personal, social-reciprocal and motivational value appeared to be high in these cases. Olivia appeared to engage in socialising habitually, and maintained

a steady level of perceived social-personal, social-reciprocal, and social-altruistic value:

“At work I’ll usually log on just after I open my work applications (anytime between 7-8 am, depending on which gym I went to that morning) and most of the time I leave Fitocracy open in the background, and then check it throughout the day mainly for the posts. I’ll jump on the phone app during the day if I’m stuck in a meeting and need a break. I usually prop workouts and achievements first thing in the morning and then at night before bed. I’ll comment on specific workouts if I think they are particularly amazing or if I like what that Fito did.” (Olivia)

In the area of socialising, reading posts, propping, posting encouraging comments under other customers’ workouts or announced achievements, particularly when someone passed a level, were all habitual behaviours. An additional habit was responding politely to a new follower, thanking them, following them back and responding “gotcha back” (Netnographic diary 14/2/2017).

Loyalty

Participants expressed their loyalty to Fitocracy in various ways. Some presented it as a form of attachment which kept them re-engaging after a time of absence:

“Fitocracy has helped keep me thinking about fitness. This took hold over the last year or so. I figured out that I was always excited to post my workouts and get my points when I was active, but if I hit a slump...then I wasn’t visiting. By keeping active in some way, I return to log my workout and something would help spur my motivation: seeing an old Fito friend...making a new one...propping others...finding new routines. In my bigger picture, Fitocracy has become a natural part of my fitness mindset and routines.” (Owen)

Owen developed loyalty and appreciated his habitual behaviour for its perceived emotional, motivational, social-personal, social-reciprocal and social-altruistic value. Other participants presented loyalty as a part of their personality:

“Loyalty is very important to me. Fitocracy meant a lot to me at an earlier stage. The sense of community and loyalty are the most important for me. I am very loyal, I’ve had the same barber for ten years (laughing).” (Irwin)

Irwin explained that engaging with socialising and relationships, including a relationship with the provider, was something he was attached to. His responses indicated a high level of emotional and cognitive engagement. Finally, participants such as Raymond admitted they had become fans of the platform, and they consciously reflected on the reasons behind their loyalty:

“At times, I have asked myself how did this happen. I am obviously a fan. I cannot pinpoint whether it is the social aspect, the tracking, the knowledge base, the points and games, that makes a difference because other sites have many of these aspects. I think you mix these all with smart, nice, and witty people and you get a winner. I will tell you that I can still remember the first people that I followed and followed me, the first people that commented on my workouts, the first person that took the time to answer a question, and the first person that challenged me and beat me in a duel. Hell, I saved the email that I got notifying me that I was beaten. It was fun and it was motivating. I have borrowed my workout routines from so many Fitos. The gamification may suck you in, but it is the community that keeps you.” (Raymond)

Raymond discussed several engagement processes and their associated perceived value dimensions; engagement with socialising, relationships, activity tracking and gamification, generated epistemic, social-personal, social-reciprocal, motivational and hedonic value. Raymond recalled his first attempts to engage with the platform as positive memories that initiated his loyal relationship with the platform. It became

clear that loyalty was not only directed to the provider and the service itself, but to other customers in the online community as well.

7.3.5 Perceiving value as part of the journey of fitness and life

An additional angle from which participants appeared to process their experiences and develop value perceptions was their fitness journey before and during engagement with Fitocracy, as well as their life during that time. They would place the different forms of perceived value into a bigger picture and assess them as part of it. Perceived functional and epistemic value could stem from the usefulness of, and lessons learned from activity tracking:

“I found that Fitocracy added another dimension to my own fitness journey that had begun several years prior. Most importantly, it helped me to apply, and recognize, the benefits of tracking your exercise habits. Through Fitocracy, I came to see the real importance of keeping an active workout journal.” (Scott)

Scott learned from Fitocracy that keeping a workout journal was beneficial for him, a piece of knowledge that made a difference to his fitness journey. Therefore, perceived functional and epistemic value were enhanced by being placed in the bigger picture of Scott’s life experiences. For some participants social-reciprocal value was the main value dimension of Fitocracy which was seen as a major part of their lives:

“So it became a little bit more intimate intertwined with your life and made it a little bit more real created more of a community where you know you look forward to logging in to seeing what other people are doing, I think recently like a month or so ago I saw that there was a Spartan Race obstacle course race group, and I started doing some Spartan races, so it was nice to see people doing those same races that loved to do it and communicating that way, communicating with them, so it definitely... you become more invested in it because there was more things for you to connect with and more people for you to connect with your own interests,

so it...it definitely became something that I wanted to intertwine with my life as far as interest goes.” (Lance)

In Lance’s account it becomes apparent that social-personal and social-reciprocal value was not only assessed during his engagement with socialising and relationships, but it was seen beyond engagement, as an integral part of his life. For some participants, emotional and functional value were enhanced when they remembered a point in their life when they made an important decision:

“I live with my wife and two cats in northern Sweden, when not out traveling for work. Which is a bit too often, I sit a lot for work, both in the office and in the airplanes. And the travel schedule means that my old exercise habit of martial arts didn't really work anymore, or anything that requires a really regular schedule. So, the story of how I came to join Fitocracy is stumbling over the xkcd comic <https://xkcd.com/940/> at the right time when me and my wife were in agreement that we should do "something" about being in better shape.” (Harold)

In this case, a positive behaviour-change decision was made together with a loved person, and Fitocracy was the tool to help them pursue the implementation of this decision. Functional value was also emphasised, because Fitocracy acted as a tool to help organise Harold’s busy life. Often, engagement with Fitocracy would offer functional value, by being a part of a participant’s return to fitness, sometimes after health issues or other life struggles:

“I created my Fito account in 2011, after hearing a friend talk about it, but didn't really become active here until I solved some health problems I had had and committed to working out regularly, which was the end of 2012.” (Jane)

In Jane’s example, functional value was complemented with social-reciprocal value, as the platform that played an important role in her life was recommended by a friend who was already a customer. Participants would also return to fitness and begin

engaging with Fitocracy to improve their lives and contribute to the lives of non-customers, such as their spouses and children:

“By that I just mean the early stages of falling back in love with lifting. I got into it in college, and kept the habit up until after, for the most part, but when our first kid was born it triggered a “well, I’ll get back to the gym someday phase” that lasted about 7 years. At that point I was miserable, fat, and desperate for a change. Tried this place, and the tracking, keeping up with things, seeing progress happen in a linear way- it all helped. I’m now a near-40 gym rat that’s not afraid his kids (now three of them) are going to have a fat lazy dad any more. I can keep up with anything they want to do.” (Tony)

In Tony’s account it becomes clear that emotional, functional, motivational and health value were amplified by the role they played in his fitness journey and family life. Mark, added to the above, the epistemic value of learning and developing through interacting with people on Fitocracy:

“I have always been active and since about 2000 most of my activity came from rock climbing. Two young children later I simply didn’t have time for it and wasn’t doing as much regular, focused exercise. We did a fitness challenge at work that accumulated total minutes of exercise and I found that little extra bit of motivation very helpful for me. After that I stumbled across Fitocracy and fell in love. It has been a wealth of information on fitness and nutrition and a great community to be a part of (one of the nicest places on the internet if you ask me). I agree with everything Shauna said as well - lots of mechanisms to broaden your horizons and help in your goal setting and, while the points don’t really matter, I really enjoy the point system.” (Mark)

However, some participants made it clear that the perceived value they derived from Fitocracy, was not amplified at all by its contribution to their lives:

“It’s not a major part in my life, in that if it were gone, I would carry on regardless. I like order to everything, and it fills a gap in that I like to see my workouts logged there...but it’s not the only place I do so, albeit the only one with points assigned...I just don’t “value” those so much anymore.” (Marcel)

Marcel appeared to focus on functional value, which he believed he could obtain from another provider as well. There was no mention of emotional value, while perceived value from gamification, possibly functional, motivational, emotional or hedonic, appeared to have reduced over time.

In summary, it appeared that life circumstances did not only influence engagement with the themes of value creation, but influenced perceptions of value as well, while participants’ lives were impacted by this value. Although in this study I considered participants’ lives as a perspective from which they assessed value, the idea is consistent with Sheth’s (1991) conception of “*conditional value*” (p. 162); a dimension of value which represents the enhancement of perceived value due to contingencies and circumstances outside of the main offering.

7.3.6 Conclusion

In this section, it was demonstrated that participants developed value perceptions from their engagement with activity tracking, gamification, socialising, relationships and physical activity, by combining four perspectives. Firstly, if they were asked at a given time to ‘take a picture’ of the value they acquired at the present moment, without considering the past or the future, they would present ten dimensions of perceived value: functional, emotional, epistemic, hedonic, social-personal, social-reciprocal, social-altruistic, motivational, health and well-being, and price value. Secondly, they would develop value perceptions through cognitive comparison; they would compare the present to the past, Fitocracy against other providers, and engagement with Fitocracy to absence of engagement with any fitness app. Thirdly, they evaluated their engagement as a habitual process which could involve a degree of loyalty to the community and the provider as a brand. Finally, they assessed the value dimensions for

the impact they had on their fitness journey and their life until the present time. The importance of competition between behaviours and providers has been highlighted throughout the analysis, while relationship marketing (Desai 2009) and branding (Evans & Hastings 2008) in social marketing, may play a role in the development of positive value perceptions. Habit formation and loyalty were also found to play a role in enhanced perceived value.

The findings extended existing knowledge from previous studies. Firstly, it becomes clearer that facilitating a system equivalent to Nicholson's (2012) 'meaningful' gamified environment, involves looking beyond individual game elements. It is suggested that any aspect of a gamified system that carries one or more dimensions of perceived value can be regarded as meaningful, and a provider's aim must be to facilitate and protect the engagement processes which will improve customers' evaluations of perceived value dimensions. The findings extended the value dimensions as found in the literature of social marketing and gamification (Table 3.6). Functional, emotional, and epistemic value remained as in previous studies. Hedonic value was reconceptualised to involve gamefulness as well as playfulness and aesthetics, as previously identified. Social and community value have been reframed and divided into social-personal, social-reciprocal and social-altruistic value according to the nature of perceived benefit from social interaction. Motivational value has been added to describe participants' views on how the system helped them maintain behavioural engagement with physical activity. Health and well-being was seen as a form of perceived value, as people reported feeling better when socialising and engaging with relationships while staying physically active. Price value may be of use in interventions where participants have the option to pay for additional features of a service. Considering the context-dependent nature of perceived value, further research on value dimensions in gamified systems for behaviour change is recommended.

7.4 Concluding data analysis III

This chapter responded to Research Questions 2 and 3. It has sought to add depth through the constructs of SDT to the ways in which engagement processes of value creation are being motivated in a gamified system for physical activity, and explained

the potential output of these processes for the customers. Insights were drawn and linked to the current literature. Moving on to the final chapter, the above findings will be summarised and compared to previous studies, in an attempt to highlight the contributions of this study to ongoing conversations. Finally practical suggestions to social marketers will be provided, and particular areas of further exploration will be indicated.

8. CONCLUSION: SUMMARY, IMPLICATIONS AND FUTURE DIRECTIONS

8.1 Summary

In this study, I adopted a social marketing perspective, with a view to understand how gamified systems for physical activity can work for the benefit of social marketing programmes, by facilitating value co-creation between target audiences and intervention providers. I have explored Fitocracy, a gamified fitness tracking system, involving a social networking site and a mobile app. I viewed Fitocracy as a service, and focused on the customers' perspective, considering them as co-creators and independent creators of value, while the provider's role was considered to be value facilitation and co-creation. Using SDL, and Grönroos and Voima's (2013) model of spheres of value creation, I mapped Fitocracy as a field, identifying four spheres of value facilitation, co-creation, and creation; the provider sphere, the external joint sphere, the gamified system joint sphere, and the customer sphere. I recommended the term 'value-in-engagement' to encapsulate value creation and co-creation processes which could be within or beyond the ideas of use, experience and behaviour, and would emphasise the customer's contribution in a gamified service hosted on online platforms.



Figure 8.1: Summary of Research Questions 1, 2 and 3

I studied the system using netnographic techniques; a netnographic diary with observations and reflections from my own engagement with the system, data from discussions in online private groups on Fitocracy, as well as text and transcripts from individual online interviews with participants. Figure 8.1 illustrates the focus of the three Research Questions. In response to Research Question 1, in accordance with work of previous authors, I identified five main types of processes of positive or negative value creation; value (co-)creation, (co-)protection or (co-)recovery, (co-)inhibition, and (co-)destruction. Five themes were developed; activity tracking, gamification, socialising, relationships, and physical activity. Categories emerged within the themes, which were described in detail and linked to previous research. The categories were analysed based on participants' reported behavioural, cognitive and emotional engagement.

Research Question 2 was answered by analysing the data from the perspective of motivation, exploring constructs from SDT, combined with Reeve's (2005) idea that motivation consists of energy and direction. Pre-existing motivational energy was observed in all participants' responses, and motivation was directed towards specific or general fitness goals, other interests including games, sports and mobile apps, socialising as well as maintaining existing relationships online or in real life. The participants discovered the gamified system and chose to engage with it as they found within the themes of value creation, processes compatible with their pre-existing motivational directions. The choice of such a system which could match with their personalities and preferences was viewed as something that satisfied their need of autonomy, combined with the fact that the system provided a variety of choices and customisation options. Elements within the engagement processes were found to be autonomy-, competence- and relatedness-supporting, while some aspects appeared to satisfy more than one psychological needs simultaneously.

Extrinsic motivation appeared in the form of game-like rewards. Many of them appeared to be highly internalised, while sharing, which satisfied the need for relatedness, appeared to be the key in internalisation, in agreement with Ryan and Deci (2000). Once on Fitocracy, participants' motivation was directed towards some or all

of the themes of engagement, while people's initially preferred directions often changed when they discovered the other capabilities of the system; customers could initially direct their motivation towards activity tracking and physical activity, and later discover the value of engaging with other processes, such as gamification or socialising. Disengagement from the system appeared to be linked with depletion of motivational energy, as well as change in motivational direction away from Fitocracy, for reasons that might or might not be related to the system's capabilities.

Research Question 3 was answered by analysing the data from the perspective of participant's cognitive processes of evaluation. Firstly, the participants could take a picture of the overall value they acquired a specific point in time. Through their responses, they presented ten dimensions of value, which were identified by consulting previous literature on perceived value in gamification and social marketing. The same dimensions were used when participants developed perceived value through comparison between different service providers, between the present and the past of their engagement with the same provider, and between engagement and non-engagement with the provider. The dimensions were evaluated from a different angle when people developed the habit of engaging with the themes of value creation on Fitocracy. They appreciated the value of that habit in their lives and the value of the different dimensions would be influenced by this perspective. Often, customers expressed their loyalty to the provider and the community, and described positive associations as well as support towards the provider, forgiveness of the negative aspects of the system, and positive emotional engagement. Finally, participants told their stories in regard to their lives and fitness journeys. They often appeared to develop value perceptions, based on the same dimensions, by thinking of the bigger picture. When epistemic value, for example, translated into a lesson learnt for life, perceived value appeared to be enhanced.

8.2 Research implications

8.2.1 Theoretical contribution

Six main areas of theoretical contribution can be identified in this study:

Social marketing and gamification

Section 2.4 of the Literature Review presented the recent attempts of social marketing scholars to implement gamification in their research. From the studies summarised in Table 2.1, it was concluded that in the field of social marketing there is currently a lack of conceptual clarity in terms of the meaning of gamification and its distinction from full-fledged serious games. Among the aforementioned studies, only Mitchell et al.'s (2017) paper referred to gamification as per its most broadly accepted definitions (Deterding, Dixon et al. 2011; Huotari & Hamari 2011; Huotari & Hamari 2017). The implication of this insight in regard to this study's contribution to knowledge is twofold. Firstly, it constitutes an important contribution in itself; conceptual clarity is required in order for social marketing studies to be recognised and cited as part of the gamification literature. To illustrate this point, Johnson et al. (2016, p. 92) mentioned the presence of "*complete games (serious games) not gamification*" as an exclusion criterion for studies included in the authors' systematic review of gamification for health and well-being. As the concept of gamification is drawn from another field, it is argued in this study that it is essential for social marketers to follow the field's existing conceptual foundations, and that the terms 'serious games' and 'gamification' are not used interchangeably. In addition, this insight implies that the contribution of the present study in the intersection of social marketing and gamification can only be linked to Mitchell et al.'s (2017) study, as the gap in the literature is still quite significant, considering that the above conceptual issue was found in all other studies presented in Table 2.1.

In Mitchell et al. (2017), the gamified system used for the research presented functional issues, which prevented participants from making the most out of the programme, as explained in 3.3.2, p. 52 of the thesis. In the findings of this study, the importance of functional value was highlighted throughout the analysis. It appeared that certain bugs found in the Fitocracy app as well as some occasional interruptions in the normal function of the website could constitute a source of value destruction as well as future value inhibition. On the other hand, the overall perceived functional value of Fitocracy

was emphasised when participants justified why they chose this system among its competitors (7.3.3). Considering that Mitchell et al.'s (2017) experiment did not present any positive changes in intrinsic motivation, as well as the participants' negative feedback on the app, it could be claimed that a large number of technical problems found in a gamified app might disrupt a study and potentially influence the effectiveness of gamification as a tool for behaviour change. Furthermore, the findings of a study deploying a gamified system of low perceived functional value might be compromised.

Finally, in the authors' work (*ibid.*), participants did not appear to have the opportunity to engage in socialising with each other or to develop relationships. Therefore, following the Cognitive Evaluation Theory, which is a sub-theory of the Self-Determination Theory (Deci & Ryan 1985c), the authors selected not to include relatedness in their study, which is consistent with relevant experiments in gamification studies as well (Mekler et al. 2017). However, the importance of the social component of Fitocracy was evident throughout the analysis chapters of this thesis: firstly, in the themes of socialising (6.4) and relationships (6.5); secondly, in the satisfaction of relatedness (7.2.5) as well as the combined needs satisfaction (7.2.6), the pre-existing motivational direction towards socialising and relationships (7.2.2), and the importance of relatedness for internalisation of extrinsic motivation (7.2.7); lastly, in the perceived social-personal, social-reciprocal and social-altruistic value dimensions (7.3.2) and their role in comparison (7.3.3). Therefore, the present study has highlighted the importance of incorporating social interactions in future social marketing studies deploying gamification. When SDT is used as a conceptual framework, the presence of social interaction manifests as 'relatedness' satisfaction. The evidence of this study suggests that the need for relatedness should not be excluded from studies that use SDT to examine intrinsic motivation in gamification for social marketing.

Gamification for physical activity

Gamification scholars have demonstrated an increasing interest in behaviour change, including applications of gamification for physical activity (Johnson et al. 2016; Alahäivälä & Oinas-Kukkonen 2016). As this study followed a social marketing perspective and deployed netnographic methods, as opposed to experimental or survey-based techniques commonly adopted by gamification scholars, its value lies in the depth of its analysis. Two main areas of contribution can be found, within current discussions regarding gamification for physical activity.

Firstly, gamification studies largely acknowledge the importance of the social component of gamified systems (Koivisto & Hamari 2014; Chen & Pu 2014; Hamari & Koivisto 2015), which is relevant to the findings of the present study. Koivisto and Hamari (2014) discussed the social benefits of a gamified system for physical activity, which in this study have been explored as three different forms of social value (7.3.2). Cheng and Pu (2014) highlighted the motivational capacity of combining cooperation with competition in social interactions, an idea which has emerged throughout the analysis, with the addition of the importance of fair play in competitive conditions (6.3). Hamari and Koivisto (2015) assumed the existence of a social community, and associated it with subjective norms, recognition and reciprocal benefits. This study added depth to the above discussion in 6.4 and 6.5. The existence of a community was not assumed beforehand, but community bonds were found to exist as well as other types of relationships, such as friendships (6.5). In the analysis of value creation through engagement in socialising (6.4), ‘social norms’ were viewed as ‘etiquette’ and the role of the moderator was highlighted in ensuring compliance to written and unwritten rules and maintaining positive value creation. ‘Recognition’ and ‘reciprocal benefits’ have been analysed as forms of social-personal and social-reciprocal value.

The analysis explored the social interactions from three different angles; from the perspective of value creation (6.4 and 6.5), relatedness (7.2.5 and 7.2.6), as well as perceived social-personal, social-reciprocal and social-altruistic value (7.3.2). Therefore, the study extended the current understanding in regard to the social component of gamified systems for physical activity.

Secondly, it has been observed that customers' interest in gamification declines over time, a fact which has been attributed to a possible novelty effect (Hamari et al. 2014; Hamari & Koivisto 2015; Hamari 2017). The latter implies that customers disengage with gamification over time because their initial positive thoughts and emotions, or perceived hedonic and functional value derived from a gamified system is reduced as they get accustomed to it. However, in this study, customers of Fitocracy explained their decline in cognitive and emotional engagement with gamification as an outcome of multiple possible reasons. For instance, they often expressed their disappointment due to the lack of regular updates to the available challenges and their consequent rewards; which indicates that the way in which the provider builds and maintains a platform on the long-term may play an important part in ensuring sustained engagement. Furthermore, participants prioritised their personal goals as well as their health and other life circumstances over the goals recommended to them through gamification. Issues such as misbehaviour from the part of other customers were mentioned, which included but were not limited to online harassment, trolling, or cheating in group challenges and duels. Therefore, the dark side of gamified systems manifesting as misuse of game elements, or compromised social interactions between customers should be considered as a possible reason as well. Finally, the emergence of customer-generated gamification, may mean that customers, given the necessary resources, not only maintain their interest in gamification over time, but when it is not offered by the provider, they engage in developing it themselves through collective value co-creation. The latter area of contribution indicates the need for more qualitative studies, which minimise assumptions and emphasise exploration and depth of understanding.

Adaptation of the spheres model

In Chapter 5, the model of spheres by Grönroos and Voima (2013) was adapted in an attempt to create a picture of the interactive processes of value creation and co-creation within a complex gamified service. The provider sphere, where potential value is facilitated, remained the same as in the original model. The gamified system joint sphere is the online equivalent of the authors' joint sphere; the area where *“the role of*

the customer is twofold: co-producer of resources and processes with the firm and value creator jointly with the firm” (ibid., p. 140). The external joint sphere played a similar role, but value creation was not situated in the main service environment, while it could be facilitated by other providers. In addition, in the external joint sphere as well as the customer sphere, interactions have been divided into ‘In Real Life’ and ‘online’. The authors’ model is quite broad and would not be applicable to Fitocracy without adaptations. Therefore, the adapted model is recommended for similar gamified services, which involve online and real life value creation processes.

The term ‘value-in-engagement’ has been introduced and applied to the analysis, due to issues arising from existing SDL terms as well as the advantages of using the word ‘engagement’ as outlined in 5.4. ‘Value-in-experience’ was not chosen, due to its phenomenological associations, as well as its more passive meaning in terms of the customers’ participation in value creation. ‘Value-in-behaviour’ was a term which could describe a small part of the overall value creation, while ‘value-in-context’ was not chosen due to its macroscopic view of service systems. Finally, ‘value-in-engagement’ was described as an extension of the broadly accepted term ‘value-in-use’, as it involved use, as well as value creation processes beyond it. The term engagement also provided a conceptual ground for the analysis of behavioural, emotional and cognitive components of value creation (Brodie et al. 2011), which greatly enhanced the depth of the analysis in chapter 6. Therefore, the term ‘value-in-engagement’ proved to be a valuable tool for the analysis of value creation in a gamified service for physical activity, and is considered as an important part of the theoretical contribution of this thesis.

Forms of value (co-)creation

The need to explore value destruction as well as creation has been highlighted by social marketers (Leo & Zainuddin 2017). In this study, I examined participants’ responses and attempted to understand what constitutes positive and negative value creation (Grönroos & Voima 2013). By adopting Echeverri and Skålén’s (2011) value creation, destruction and recovery, and adding the notion of value protection as a more proactive process than recovery, I solved a large part of this problem. Value protection

and recovery is similar to Leo and Zainuddin's idea of "*strategic behavioural actions*" (2017, p. 405) that consumers engaged in to avoid value destruction. By consulting Minkiewicz et al. (2014) and Zainuddin et al. (2017), I transferred the idea of a 'barrier' or 'inhibitor' into an engagement process, which was termed as 'value inhibition'. Following the SDL, an inhibitor is not activated unless the customer uses or, in this study, engages with it. Engaging with a system which has usability issues and is responding slowly may therefore be a process of value inhibition. The prefix 'co-' was added before the words creation, recovery/protection, inhibition and destruction according to the rationale of Grönroos and Voima's (2013) spheres model, where customer-provider interactions constituted co-creation while customers' independent actions constituted value creation.

Applying the constructs of Self-Determination Theory

The main constructs of SDT were applied to the data, to explain the motivation behind the engagement processes of value creation. The study attempted to contribute to discussions around SDT in gamification studies, by adding a different perspective from the more commonly deployed experimental and survey-based approaches. At the same time, this part of the analysis intended to help social marketers understand the role of gamification in encouraging behavioural engagement with physical activity, as the latter was considered as one of the engagement processes. The notions of intrinsic and extrinsic motivation, as well as the basic psychological needs of autonomy, competence and relatedness were explored. Based on Rigby's (2014) perception of engagement as a manifestation of motivation, intrinsic motivation was combined with Reeve's (2005) motivational energy and direction, in order to specify which engagement processes were motivated, and what indications existed about motivational energy invested in them. Three main areas of contribution and ideas for future studies were found.

Firstly, the idea of pre-existing motivation, was consistent with SDT as it demonstrated that the energy of intrinsic motivation develops throughout one's life and is not simply the outcome of a few days or weeks of engagement with a gamified system. Pre-existing motivational directions appeared to be compatible with one or more of the

engagement processes of Fitocracy. This led participants to engage with the gamified system initially, and often appreciate this compatibility and maintain engagement. When customers engaged with the gamified system, pre-existing motivation was emotionally, cognitively and behaviourally expressed. Part of this process, was behavioural engagement with physical activity.

Secondly, engagement seemed to be supported by the satisfaction of the basic psychological needs. Autonomy was satisfied through the choice of a gamified service which was compatible with customers' interests, preferences and goals; which can be interpreted as pre-existing motivational directions. Competence was satisfied through meaningful feedback and rewards, although rewards have been considered as extrinsic motivators. Need satisfaction, particularly the need for relatedness appeared to play a role in internalisation; sharing achievements with one's virtual friends, and exchanging empowerment, emotional support and knowledge appeared to give meaning to seemingly extrinsic rewards. Competence and relatedness were satisfied at the same time through the spirit of friendly competition which was evident in the community.

Finally, disengagement did not necessarily mean depletion of intrinsic motivation to engage in physical activity. Firstly, it might mean that the behavioural purposes of the platform had succeeded and the customer no longer needed to be part of Fitocracy. It could mean depletion of motivational energy directed towards the other themes of engagement, or a change of direction towards other providers. It could also happen due to life events and circumstances. Therefore, SDT, particularly in long-term behaviour change and maintenance, could be combined with other approaches to include these additional factors.

Perceived value in gamified systems for physical activity

The study's contribution in the area of perceived value is twofold. Firstly, by comparing Table 3.7 with Table 7.1 and Figure 7.1, it can be observed that existing value dimensions have been identified in participants' responses, and new dimensions have been added. Following Mulcahy et al.'s (2015) work on the use of games in social marketing, I extended the meaning of Holbrook's (2006) hedonic value to

include, not only playfulness and aesthetics, but following Deterding, Dixon et al. (2011) and McGonigal (2010), gamefulness as well. From Zainuddin et al.'s (2017) paper, I adopted functional, emotional, and epistemic value, based on Sheth et al. (1991). Instead of adopting the notions of social and community value (Sheth et al. 1991; Zainuddin et al. 2017), I considered social value to have three distinct dimensions; social-personal, social-reciprocal and social-altruistic value (see also Holbrook 2006; Zainuddin et al. 2011). I believe that this distinction provides a clearer view of perceived value acquired through social interactions. In addition, the notions of motivational and health and well-being value were introduced; these can be implemented in social marketing programmes for physical activity or other health-related behaviours. Finally, price value (Sweeney & Soutar 2001) was added but it is only expected to be applicable in systems with a paid component. It should be noted, that I followed a methodological approach close to Zainuddin et al.'s work (2017). The authors' valuable insights along with my contribution of new value dimensions, support the idea that qualitative, exploratory studies may be suitable in contexts where value dimensions have not been examined before.

Secondly, I sought to understand how these dimensions were processed in customers' minds. The four perspectives of value perception development, indicated that there are ways in which service providers (see also 8.4.1) can enhance perceived value, through consistency, staying ahead of the competition, and building positive relationships with customers. Furthermore, they highlight the importance of an individual's life circumstances, as well as their goals and interests, in positive value creation processes. The above contributions are consistent with Sánchez-Fernández and Iniesta-Bonillo's (2007) discussion about the complexity of perceived value.

8.2.2 Methodological contribution

Addressing ethical barriers in netnographic research

Netnography in its original form (Kozinets 2002) was primarily conducted by collecting data emerging from online discussions, known as "*archival data*" (Kozinets 2015, p. 165). However, in the beginning of this study I faced ethical barriers which

prevented me from following this approach. It took four months to negotiate with the ethics committee and obtain permission, and for well-understood reasons. Participants could be identified through their online posts, and anonymity and confidentiality could be compromised. I therefore adopted an ethically safer approach, which may help researchers facing similar issues in the future. I refrained from collecting data from public posts, and immersed in the system as a customer, identifying myself as a researcher. I did not record any discussions, but only general daily reflections of my experience. To protect anonymity, I invited participants to private groups, in their familiar environment of the Fitocracy platform, and to one-to-one interviews, which allowed me to ask more specific questions. These solutions to ethical considerations pertinent to social media, can be considered as a methodological contribution to netnographic studies.

Applying netnography and symbolic interactionism to gamification research

A recent paper by Landers et al. (2018) defined gamification science, and expressed the belief that a post-positivist epistemology should be the common ground among gamification scholars, to signify the distinction between games and gamification. However, Nacke and Deterding (2017), who were among the pioneers of gamification research, adopted a different view. In their discussion about the maturing of gamification research, the authors recommended the use of theory in more studies, and pointed out that *“theory holds value not just in quantitative, hypothetico-deductive gamification research, but can also enrich and deepen the analysis of qualitative, exploratory studies”* (ibid., p. 451).

This study indicates that a well-researched platform can still generate valuable insights with qualitative methods. Insights such as the examples of customer-generated gamification, involving high levels of creativity and integration of different providers, highlight the strength of the customer as a primary co-creator and independent creator of value in gamification contexts. Such observations would not be possible with survey-based methods, for example. Furthermore, as van Roy and Zaman (2018) explained, studies on gamification and motivation using SDT, can benefit from both quantitative and qualitative studies to uncover the mechanisms of psychological need

satisfaction. As long as studies acknowledge and build upon existing quantitative and qualitative studies in gamification and any other field they are contributing to, depth of understanding will only benefit all schools of thought, as it will generate ideas for further research deploying all different approaches. One methodological contribution of this study lies in the defence of interdisciplinarity in gamification studies. It is my belief that Landers et al.'s (2018) suggestion unnecessarily attempts to remove from gamification its initial multidisciplinary and methodologically open-minded nature. Finally, such opinions may not acknowledge the complexity of human behaviour, and follow the perception that behaviour is an outcome of pressing the correct buttons.

8.4 Practical implications: designing a gamified social marketing intervention

8.4.1 Facilitating value, avoiding inhibition and destruction

A social marketing programme involving gamification, whether it uses an existing provider or develops a new platform, can be informed by the insights generated in the analysis chapters. It should be sought, when possible, that positive value creation is facilitated, while negative value creation is avoided. Four main areas of practical implications have emerged: recommendations for the social marketer as a provider, for the service provider as a platform developer, for the provider as a community moderator, and clarification of engagement processes beyond the provider's control.

The social marketer as a provider

The role of a social marketer in a gamified intervention for physical activity is multifaceted. Among many other tasks, this study has highlighted the need to understand the audience by conducting prior research. The focus should be on people's current life circumstances, the place they are in their fitness journey, and their pre-existing motivational energy directed towards the desired behaviour as well as other activities and interests which may match the gamified intervention's value co-creation processes. It is important for the social marketer as a provider to invite the audience to express their pre-existing motivation in ways that can serve the purposes of the programme. Assessing the psychological needs that are most important for the audience may help in making the right decisions towards need satisfaction and

enhancement of intrinsic motivation. More importantly, the social marketer is responsible for selecting a suitable provider, a gamified system that will cover those needs. The autonomous choice of participating and engaging in physical activity should be a priority, following Nicholson's idea of meaningful gamification: "*rather than providing rewards for behavior, designers can create systems that help users find their own reasons for engaging with the behavior*" (2015, p. 4).

The provider as a developer

Despite the high degree of customer participation in the value creation process, the provider's role was highlighted in the study, in many cases. Maximising perceived functional value became evident as an important responsibility of the developer. Creating a well-functioning platform, solving technical issues promptly, and providing consistency of quality across platforms are the main recommendations. Responding to customers' feedback on bugs or suggestions on enriching the platform appeared to be important as well. In terms of gamification, it appeared that customers appreciated the frequent upgrading of game-like rewards, and expressed the need to see new quests, achievements and badges as well as the need to level up more often, even when they had reached a high level. Pleasant surprise, unpredictability, and rewards that generate excitement should be a priority for the developer. The fairness of rewards across activities that can be tracked appeared to be vital. Fitocracy was clearly geared towards weight-lifting, which could constitute a source of value destruction and meant that many customers would need to compromise. Hedonic value appeared important as well, which is also the developer's responsibility. Humorously created badges, Fred the robot, and an aesthetically pleasing, colourful platform seemed to make a difference for participants.

Following the study's insights regarding the importance of comparison in the assessment of overall value, developers should consider three main points. Firstly, they should compare their platform to the competition. The character and welcoming or non-welcoming culture of the community, the usability, the database, opportunities for learning and facilitation of social interactions are some of the parameters found in the analysis. Providing high functional, epistemic, hedonic, and social value should be a

priority and it must be compared with other providers' gamified systems. Secondly, providers must strive for consistency in their service. Starting small and building the system gradually, while avoiding neglecting the system and reducing perceived value, should be the main aim, following the analysis. Thirdly, a provider should think of the reasons why a customer would choose to engage with the service, as opposed to covering their needs by themselves, for example through pen and paper activity tracking. An interesting, fun and rich platform, facilitating social interactions may become a more attractive choice. Hosting and protecting an active community where interests can be shared, emotional support and empowerment can be offered, and knowledge can be exchanged, can increase the likelihood that the gamified system will prevail in the comparison. Many of these aspects of the system did not appear to exist in participants' real lives.

The provider as a moderator

Part of the provider's role was to 'police' the platform and support the socialising activities. Creating and enforcing written rules (Kiesler et al. 2012; Preece 2004) is vital for the system. Particularly, battling phenomena such as trolling, flaming, and harassment must be a priority. Online misbehaviour can be a major source of value destruction and inhibition for the community. Therefore, a moderator must maintain alertness and be ready to interfere at any point if required.

It appeared that the Fitocracy moderators played an additional role of participating in discussions, stirring interactions when groups were becoming quiet, and sharing their own tracked activities on a daily basis. And although these practices are not as essential as protecting people from online harassment or insult, they appeared as an additional advantage, and are therefore recommended when their implementation is possible. More importantly, the moderator can blend with the community and become a mediator in the provider-customer relationship, which may be the reason for high positive emotional engagement and loyalty.

Processes beyond the provider's control

The provider, as well as the social marketer selecting the right provider for an intervention, may need to accept that there are value creation processes which can take a positive or negative turn and are out of the provider's immediate control. Firstly, engagement preferences are not necessarily an outcome of the platforms design; a customer may choose to be a 'data-nerd' or a 'social butterfly', engaging in activity tracking or socialising respectively, because of their personality, individual needs and preferences. Furthermore, the extent to which people develop relationships, and the types of relationships, relies on people's personalities and whether they happen to find like-minded people on the platform or not. It might be a result of their perception of real or virtual relationships, as well as whether it is possible for them to engage in real-life meetups. In addition, people's life circumstances as well as their physical and mental health can only be observed, but a large part of their impact on the desired behaviour is not linked to the provider and the quality of the gamified system.

Finally, the purpose of a social marketer, as well as a service provider with the vision to make a positive impact, must ultimately be to let go of control. The customer, throughout and after their engagement with the gamified system must be capable and motivated to perform the desired behaviour on their own, whether they choose to keep engaging with the platform or not. As Nicholson explained, "*if the goal is to change someone in the long term, then the gamification system needs to be seen as a layer that can be removed so that the participant can be left in the authentic real-world setting*" (2015, pp. 18-19). On Fitocracy, the most important engagement process was physical activity, and for customers whose motivational direction turned away from the gamified system, but they remained physically active on the long term, Fitocracy had achieved its purpose.

8.4.2 Thoughts on incorporating gamification into social marketers' toolkit

Considering costs and challenges

In previous reviews on health and fitness interventions, it was noted that "*many studies used commercial gaming technologies to deliver the interventions*" (Alahäivälä &

Oinas-Kukkonen 2016, p. 66), while others were based on systems designed for the intervention (ibid.), which would potentially involve higher costs. Although gamified systems been considered a low-cost type of intervention (Jones et al. 2014), it is recommended that social marketers first consider the existing commercial platforms as possible tools to be included in an intervention for two main reasons. Firstly, the cost of joining an existing system, even with some initial expenses for registration and equipment, is expected to be lower than the financial and time-related cost of designing, building, maintaining, and moderating a social networking site for the purposes of an intervention. Of course, this may vary from one programme to another. Secondly, an already successful system may host an active online community, which the audience of an intervention can join, to exchange knowledge and find support. The latter may play an important part in maintaining behavioural engagement with the desired behaviour, according to the findings of this study.

Selecting the right tool for the audience

Critics of gamification, as well as proponents have emphasised that gamification is not a universal solution to behaviour-change problems. When the outcomes of a gamified system are positive, the reasons are not confined to the design features of the system itself. As Alahäivälä and Oinas-Kukkonen pointed out, “*researchers should note that in most cases the persuasive system alone is neither responsible nor solely to be thanked for the potential behaviour change*” (2016, p. 66). Therefore, social marketers are encouraged to consider whether gamification is the correct tool to be used in each intervention, as well as the other parameters required to be adjusted for the programme to function well.

Participants of the study as well as their peers on the platform, seemed to have a sufficient level of health literacy, a construct which has been defined as “*the degree to which individuals can obtain, process, understand, and communicate about health-related information needed to make informed health decisions*” (Berkman et al. 2010, p. 16). Their accounts indicated that they searched through various sources to find health-related information, such as nutrition approaches that would help them improve their health and pursue their fitness goals, healthy ranges of weight or body mass

index, types of physical activity and how they could be correctly performed, and many more topics. Furthermore, as was seen in the analysis, such topics were discussed with other people, online or in real life, while knowledge was exchanged and negotiated. Therefore, there was a high amount and complexity of health-related information obtained by them and communicated with other people. Mackert et al. (2016) found that *“patients with low health literacy were less likely to use HIT tools or perceive them as easy or useful”* (p. 2). *“HIT tools”* (Health Information Technology) were platforms similar to Fitocracy: *“fitness and nutrition apps, activity trackers, and patient portals”* (ibid., p. 2). Consequently, it is recommended that approaches other than gamified apps are considered when the target audience of a social marketing intervention is found to have low health literacy. Alternatively, gamified systems or other platforms could be used which are considered friendly to such audiences; perhaps by offering more educational material inside the system.

However, education alone is not sufficient to indicate that gamified systems are the best possible tool for an intervention. As explained in the last section of the analysis, participants were motivated prior to joining Fitocracy. As Alahäivälä and Oinas-Kukkonen explained, *“people adopt gamified services more easily when they already have a proper mindset for the change, and rather use these systems for additional motivation to reinforce the desired habits.”* (2016, p. 66). In cases where this motivation has not yet been developed, or there has not been sufficient education for the target audiences, perhaps gamification is not the most suitable tool for a successful intervention. It should not be forgotten that one of the main principles of a good game is voluntary participation (McGonigal 2010). Thus, initial participation in a gamified system should preferably be optional and intrinsically motivated as well.

8.7 Future research

Future research in gamification and social marketing could take two main directions. Firstly, following a similar path to this study, existing platforms can be explored from a social marketing perspective. Selecting platforms could follow two main criteria; social marketing-related purposes, and a sufficient number of engaged customers for the researchers to interact with, indicating an interesting and relatively well-designed

system. Secondly, gamification could be implemented in more social marketing programmes, following the literature of gamification for health and well-being (e.g. Johnson et al. 2016), relevant literature in social marketing (Mitchell et al. 2017), and the recommendations provided in this study, in combination with social marketing's benchmark criteria and theory. Interventions, which will include gamified components, preferably optional, could be planned, implemented and evaluated to generate new knowledge.

Building on the theoretical contribution, Grönroos and Voima's (2013) spheres model as adapted for this study, can be tested in online services, refined and further adapted to suit different contexts. The construct of 'value-in-engagement' is recommended to resolve potential conceptualisation issues which may arise in studies involving social networking services. Furthermore, engagement can be studied through its behavioural, emotional and cognitive dimensions to enrich a researcher's understanding of value creation processes.

In addition, I suspect that the proposed distinction of positive and negative value creation, consisting of creation, recovery or protection, inhibition and destruction, may help researchers interested in the area of co-creation and co-destruction of value in community settings. I therefore recommend its use, and perhaps future adaptations to dimensions that I either did not observe, or were not present in this specific research context.

SDT can be explored further in social marketing, as it was used in this study as an additional layer of depth to the analysis. Future studies, could move beyond the main constructs, and study the motivational capacity of social marketing programmes through the complete intrinsic-extrinsic motivation continuum; the "*taxonomy of human motivation*" (Ryan & Deci 2000, p. 61). This study has indicated that although SDT is primarily a quantitative theory, it can be a valuable tool in qualitative, exploratory studies as well.

Finally, dimensions of perceived value identified in this study, can be deployed, challenged, and adapted into different contexts. As pointed out previously, the choice of dimensions in different studies is expected to vary.

8.8 Conclusion

Social marketing is developing stronger theoretical and practical links with interactive technologies generating social, functional, epistemic, emotional, motivational, gameful, playful, aesthetic, and well-being benefits. Such platforms may help us learn more about value co-creation, by hosting active online communities bringing together people from diverse cultures and backgrounds. However, while commercial marketing rapidly adopts persuasive technology as it emerges, social marketing is known to have a slower pace in doing so. In the field of physical activity, more research could be focused on gamified systems, as well as full-fledged serious games which do not seem to drop in popularity or effectiveness. While opening a dialogue with other disciplines can generate knowledge of a multidisciplinary character, studies that follow the benchmark criteria, and incorporate technologies such as gamification as optional components of social marketing interventions are recommended to be conducted and evaluated, to enhance our knowledge and strive to achieve a larger-scale societal impact.

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APPENDIX

1. Approaching the community of Fitocracy and inviting participants

First post on profile on Fitocracy, intended to inform current followers about the study
(15 Feb 2017)

“To my new Fito-friends:

Thank you so much for the warm welcome. I have already met amazing people and read some really interesting comments and questions, so I am excited to be a new Fitocrat among you and a researcher at the same time.

A little bit about my research:

The method I am following is called Netnography: for those of you who happen to know/are geeks like me, this is an online form of ethnography, exploring social gatherings and communities in online platforms.

If this sounds interesting, in a few days I am going to invite you through this feed to take part in my study, and I will explain how this can work when the time comes.

At the moment, I am participating in activities as a normal member. Our interactions, your posts or messages are not being used for research. Please remember that if at some point you take part in the study, you will be fully aware of it beforehand and it will be your informed choice.

At the first stage of the research, I am only keeping reflective notes of my own experience inside Fitocracy; notes such as 'a very welcoming community' :-)

In the meantime, any questions and of course props for my hard work at the gym are most welcome :-D

take care and speak soon,

Ismini”

Post on Fitocracy profile, inviting followers to participate in the study (27 Feb 2017)

“Dear Fitos,

I hope you are well!! Many many thanks to everyone for the support as I was going through each level and doing my best to keep up with you guys. So far, the experience of Fitocracy has been fantastic!

The first part of the research project is complete. It involved me experiencing Fitocracy as a user, understanding how it works, introducing myself and connecting with you :-)

The most exciting part comes next. Because now I will need your help to keep this project going. I would like to hear more about your experiences, your motivations, your relationships, your emotions, things that you enjoy.

Anything you consider important, because this is your part of the research.

This is how you can take part:

- 1. Join one of the closed groups here on Fitocracy for up to two weeks and chat with each other and myself. These groups are especially created for this project.*
- 2. Be invited for an interview. This can happen in many ways: Skype, e-mail, or personal messages. I would like to hear your voices but your written messages are also invaluable! Your choice!*
- 3. Both. Yes, we can do this too! It will generate amazing data for the study, and hopefully be enjoyable for you as well.*

Interested? Just make a comment below 1,2 or 3 and I will take it from there.

I am looking forward to your responses. You can post on my page, or message me with your questions.

Take care and see you soon,

Ismini”

2. Interview guide

Notes in regard to the interview format:

- The order of the following topics varied across interviews.
- Not all topics were discussed during every interview.
- The style of the interview was semi-structured.
- The discussions depended highly on the participants, their knowledge, experience, willingness to discuss and share information, and available time allowed for the interview.

Introduction

- Greet, thank and welcome the participant to the study.
- State that the study is anonymous.
- Explain that the discussion will be used for academic research and viewed by researchers involved in the study.
- Explain that this is closer to a chat than to an interview with specific questions.
- Explain that the participant can discuss anything he/she wishes, and should feel free to change the subject in case something different comes to mind.
- If the interview is through a voice or video call, ask the participant whether he/she feels comfortable to be recorded.

General discussion about the experience on Fitocracy

In most interviews, I begin by briefly sharing my own story; where I am from, why I came to Scotland, my studies, how I developed an interest in gamification, what social marketing is about, and how I found myself conducting interviews on Fitocracy.

- Ask the participant to tell their own story, by saying a few things about themselves and how they joined Fitocracy.

- Ask how the experience was in the beginning and how things have changed for the participant since that first period of time.
- Request the participant to describe a typical day, during which he/she performs daily activities and logs into Fitocracy as well.
- Ask what the participant normally does once he/she is on Fitocracy. Request that they specify whether that happens on the mobile app or the website.

Discussion about tracking workouts

- Request the participant to share information about their experience with tracking their workouts
- Ask about the types of activities tracked.
- Discuss about the participant's preference to upload a workout before, during or after it is performed.
- Discuss their use of the app and/or the website.
- Further discuss any issues mentioned, notable facts or events of interest.

Discussion about gamification/game elements of Fitocracy

I begin by expressing my interest in gamification/"the game aspect of Fitocracy"/the game elements, and the role they play in people's experience.

- Request the participant to say a little about their experience with game elements: points, badges (achievements), levels, quests, leaderboards, challenges and duels.
- Ask further questions to understand how important each element is to the participant.
- Discuss possible changes over time.
- If mentioned, discuss customer-generated gamification, such as tournaments, text-based role-playing games, or text-based group challenges.
- Further discuss any issues of interest.

Discussion about the social aspect of Fitocracy

- Request the participant to imagine a person who has never seen Fitocracy, and explain to that person what topics are being discussed on the platform and what types of people one could meet.
- Ask how discussions unfold after a post, what comments may appear.
- Discuss the meaning of a 'prop'.
- Discuss emotional support and knowledge exchange between users if mentioned.
- Ask about possible disputes in the community.
- Ask the participant whether he/she has experienced any problems where the moderator or other community members had to interfere to a discussion.
- Discuss communication through other platforms.
- Ask the participants whether they participate in groups, public or private, and what their participation involves.
- Ask about followers and friends, and discuss the interactions with other members and possible relationships formed.
- Ask whether the participant has met other Fitocracy members in person.
- Request the participant to describe the experience of a real-life meetup.
- Ask about their private messaging.
- Ask about any issues in general.
- Further discuss any topics of interest.

Discussion about life outside Fitocracy, relevant to the platform

- Ask about the participant's fitness-related activities and whether/how they have been influenced by Fitocracy.

- Ask the participant about the differences between his/her real-life environment and the people on Fitocracy.
- Discuss the difference between relationships, for example between friends and Fitocracy friends.
- Discuss other sources of information about fitness.
- Discuss the use of other platforms, to connect or track physical activity.

Concluding discussion

- Ask a final question. Request the participant to imagine that he/she could design Fitocracy from the beginning, and could choose anything they wished, the concept, Fred (the robot), the tracking system, the game aspect, the community and its rules etc. Ask if the participant thinks that they would do everything the same or whether there is something they would do differently.
- Close discussion, thank the participant and invite questions.
- Express the willingness to reciprocate by offering help and support in the future if asked.
- Send the consent form and ask the participant to read, understand and consent to participate in the study, provided that they are happy with the content of the document.

3. Consent form (includes original, temporary title)

CONSENT FORM

Title of Project: Gamification in social marketing interventions: insights from online ethnography

Name of Researcher: Ismini Pavlopoulou

Institution: University of Stirling

Contact: ismini.pavlopoulou@stir.ac.uk

I confirm that the following statements are true

1. I am an adult (over 18).
2. I have been informed about and understood the purposes of this research. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.
3. I am aware that my participation is voluntary and that I maintain the right to withdraw my participation and my data at any time (prior to any publication arising from the findings) without consequences.
4. I understand that my personal profile on Fitocracy.com and my interview conducted during the study will be recorded and used by the researcher and may be looked at by researchers from the University of Stirling. I give permission for these individuals to access and read my responses for research purposes.
5. I am aware that the study is anonymous and that any information I provide is confidential.
6. By approving this consent form I agree to participate in the above study.