

Meaningful **Play** in Gamification

A walkthrough analysis of Nike Run Club on matching a meaningful form of gamification with organizational goals

New Media and Digital Culture

Master Thesis

Name: Marcell Koolman

Student Number: 6879179

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Supervisor: Dr. Sjors Martens

2nd Reader: Prof. dr. Joost Raessens

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Abstract

Gamification has been criticized by game scholars for its lack of meaningful engagement and data extraction techniques. Game scholars argue that commercial organizations tend to use game-inspired elements to merely drive user engagement and extract user data – calling this technique a form of exploitation by organizations. This form of gamification is referred to as gamification 1.0. This form of gamification mostly uses gameful elements, or a software's formal structure, to deterministically influence users' behavior. Commercial organizations tend to use the gamification 1.0 approach to their marketing goals. A more meaningful approach, called gamification 2.0, argues for the inclusion of more free-form of interaction (playful elements) within rigid structures (gameful elements) which is supported by a motivational experience. This research aimed to answer the research question of how organizations can create a meaningful experience within gamification software where they can also meet their organizational goals. By using Nike's gamified app called Nike Run Club, it is analyzed that the goals of engagement and data extraction limits can limit some elements of play; however, at the same time, the app shows some promising opportunities for meaningful play. Thus, by using the Nike Run Club as an example, it is argued that organizations should depart from using brand engagement as an end goal for gamification and instead use a sustainable model called the circles of sustainability. The circle of sustainability is a model which regards societal wellbeing and within this model, organizations need to ask questions within an economic, political, ecological, and cultural domain. By placing organizational goals with gamification within this model, it can assist in creating a more meaningful experience for end-users. Being that gamification software is also a part of cultural production and the form of doing marketing is changing to a human-centered approach, it is more important than ever for organizations to produce less exploitative and more meaningful versions of gamification software.

Keywords: Gamification, Gameful Elements, Playful Elements, Sustainability, Organizational Theory



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1. Introduction

Getting the everyday motivation to work out or jog can be challenging for some people. As digital technologies keep growing and expanding, people do not need physical coaches or friends to motivate them to run anymore. One would feel very satisfied if they manage to run five kilometers running time within 40 minutes. The following week one would feel very satisfied again if they were to beat their five kilometers running time by 30 minutes. This means that one finished their running time ten minutes faster than before. It would feel more satisfying if one would be able to also beat their friend's running time. This sounds like a typical "beat the clock" game where one tries to compete with others in a jogging competition; however, this game-like element is mediated by Nike through its running-tracker app called the Nike Run Club (NRC). This NRC app forms part of the gamification buzzword.

The NRC is an app that uses game features that seem to be created to motivate people to run (Nike, n.d.). The app almost has a perfect five out of five-star review and ranks the 40th most downloaded app in the *Apple App Store* in the Netherlands. This shows the popularity of a strongly gamified app.

The application of game designs to non-gaming contexts is part of the gamification phenomena (Deterding et al., 2011). Gamification seems to be a 21st-century buzzword that is synonymous with corporations, education, or health care. In the book, *Rethinking Gamification*, Fuchs et al. (2014) say that gamification is part of the wider Ludification of Culture: a general process where games and playful experience are understood as essential components of society and culture (p. 7-8). Gamification can be understood as the implementation of game features into companies' products and services (Fuchs et al., 2014, p. 7- 8). As gamification is becoming a part of the Ludification of Culture, game scholars have become increasingly concerned with practices surrounding gamification.

Game scholar Ian Bogost refers to gamification as "exploitationware" – that is, according to Bogost, "a practice of marketers and consultants who seek to construct and then exploit an opportunity for benefit (2015, p. 65- 72). In this version of gamification, Bogost (2015) thinks that marketers carefully select game mechanics, such as points, levels, badges, and other rewards for "gamified systems" to serve the company's needs, in terms of profit and data extraction, and not the users themselves (p. 68- 77). Bogost believes that these gamified apps lack the meaningful and sophisticated experience that games provide and for this reason Bogost thinks game designers tend to ignore these gamification practices.



Game designer and researcher Sebastian Deterding (2014, p. 306) shares a similar sentiment to Bogost. Deterding thinks current gamification practices deal with “troublesome ethics” and thinks companies disregard the complexities of game designs and simply use these game designs “loosely” to gain profitable outcomes (2014, p. 306). Consultant Amy Todd thinks that gamification should be thought of as “malarkey” – suggesting that gamification only functions to obscure, mislead or impress its users instead of providing meaningful experiences to users (2017, p. 1).

Game scholars do not seem content with how commercial organizations frame and use gamification, or at the very least they are not fond of how commercial organizations use games, to gain beneficial outcomes. The arguments that scholars make against gamification are rightfully justified since gamified software is used to extract profitable outcomes for organizations and disregard meaningful experiences for their end-users. At the same time, scholars seem to undermine the impact commercial organizations have on society. This position undermines the societal impact commercial organizations have in society. Organizational impact on society cannot be undermined as their presence is pervasive. Their roles should be scrutinized, but also, they should have proper guidance on how to go forward with this scrutiny on gamification.

Throughout this research, a conception of gamification which regards meaningful experience and organizational goals is argued. This is an attempt to create a “middle-ground” between academia and organizations. This research is written with the viewpoint that these organizational gamified apps are also part of cultural production. Therefore, this research has some limitations in the sense that it will not function as a “blueprint” for organizations on how to apply these game-inspired elements. Rather, this research is meant to persuade academics to consider organizational goals when arguing for a better conception of gamification and persuade organizations to create a more meaningful gamified system. A system that produces similar (meaningful) experiences that video games do.

Therefore, a new conception of gamification, which regards meaningful engagement through gameful/playful experiences, and goes together with organizational goals is researched. Gameful (formal structures of software) and playful (freeform of play within rigid structure) experiences should provide motivational experiences for their users (Deterding, 2014, p. 316). Deterding describes “motivational experiences as emergent properties (not determined) by the relations of actors and their total environment, arising from situated, subjectively appraised



valences relative to multiple motivational processes.” Deterding argues that instead of placing gameful and playful elements to (deterministically) improve existing services, gamified software should afford a situated experience where people are motivated by the indicators in the software. For example, trust indicators can be added to the banking services app to help influence users’ trust in banking. This can lead to a more meaningful form of interaction than just adding gameful and playful elements into gamified apps. Current gamification practices mostly use gameful elements to deterministically persuade people to do something, for instance, to buy a specific grocery or brush their teeth. This makes gamification less meaningful because the elements of “play” are stripped away from gamification and there is a lack of motivational affordance within gamified systems. Therefore, it is in my research that I aim to analyze whether this form of meaningful interaction can go together with organizations meeting their own goals. This research contributes to a more meaningful and convincing application of gamification within an organizational context, and consequently, benefits society as my intention with my research is for gamification to benefit both organizations and their users.

In my thesis, I will place gamification within a sustainability model which differs from current conceptions of gamification where game scholars and organizational theorists tend to typically place these within traditional advertising models. The shift of moving gamification from the traditional advertising model to a sustainability model is inspired by the work of marketing experts Phillip Kotler and others (2016, p. 109). They argue for a new conception of marketing where the authors suggest that brands need to move from product-centric (marketing 1.0) to a human-centric approach (marketing 4.0) of marketing in the digital era. They argue that people prefer to interact with organizations that are more humane. This new conception of marketing allows for the placement of gamification in a sustainability model, specifically the circle of sustainability model. The model is used can be used by any societal actors, including commercial organizations, to prioritize the impact of their operations on societal wellbeing in the economic, ecological, political, and cultural domains (Mulligan, 2017; James, 2014). The sustainability model is centered on facilitating people’s wellbeing compared to a marketing engagement model. Therefore, by using the NRC app as a case study, in this research this model is used to place gamification within it.

This research argues for an organizational model of gamification which is more focused on creating a meaningful experience for people rather than creating a system that is only focused on creating engagement. This is also a way of creating a middle ground between the criticism of gamification and organizational goals.



The NRC app was used as a case study to support this research. This app was chosen as the case study because it is a corporate app that utilizes game designs that can afford a meaningful experience to its users but can also serve to enhance Nike's organizational goals. The NRC app is a widely used gamified app and people likely use it to track their running time. The NRC adds a "game-layer" to a regular activity like jogging. Nike uses different game-inspired elements such as challenges, leaderboards, or points in the app. This makes the NRC app a suitable case for the thesis as it is an app that has some possibilities of playful elements but also has some restrictive gameful elements – it thus provides a nuanced case for this research.

The main research question that was used for this research is: 'How can organizations create a meaningful experience within gamification software where they can also meet their organizational goals?'. The three sub-questions that were used to answer the main question are: 'how are Nike's organizational goals embedded within the game-inspired elements in the Nike Run Club?', 'what are the possibilities for free-form of interaction in Nike Run Club?' and 'how can the four domains of the circle of sustainability be used for organizations to create meaningful gamification software?'.

The walkthrough method in combination with an affordance analysis was used to identify Nike's values behind the NRC app which helped with determining the intended motivational experience of the NRC app, the gameful elements of the app and the playful elements of the app. These delineated "gamification" features of the app were used to support an organizational gamification model which uses four domains of the circle of sustainability model.

2. Theoretical Framework

This theoretical framework will first start with a discussion of several concepts about gamification and discuss how this will fit within my argument for my thesis. Secondly, how gamification is framed within the context of organizational theory will be discussed. This is an important dimension of this research since organizational theories are often overlooked in most literature about gamification. Lastly, the circle of sustainability model will be introduced and discussed in this chapter.

2.1 Gamification in academia (Gamification 1.0)

As mentioned earlier in this article, gamification is part of the ludification of culture (Raessens, 2014). Professor Joost Raessens (2015, p. 96) argues that the concept of *play* can be used as a



heuristic tool to make observations and understand contemporary media culture – especially when it comes to new (media) objects. In our contemporary culture, which includes gamification practices, digital technologies and play are closely linked. Building on previous conceptions of play, Raessens (2015, p. 102) says that play refers to free-play, improvisation, spontaneity, and impulsiveness. Play typically takes place within formalized, rigid structures and rule-driven environments – which are games. Gamification, especially within organizational contexts, typically tends to disregard the notion of play. For example, in the field of human-computer interaction, Deterding et al. (2011) attempt to define gamification by stating that gamification is “the use of game design elements in non-game contexts” (2011, p. 10). The Dutch supermarket chain Jumbo, for example, uses game-inspired elements for customers to save points and unlock rewards if they download and scan their *Jumbo Extra* app at their supermarkets (Jumbo Groep Holding B.V., 2022). *Duolingo* is also a gamification app that uses points, challenges, and badges to reward people for learning different languages (Duolingo, 2022).

These apps, following the critiques of game scholars, both miss the playful elements which can consequently make these gamified apps less meaningful for users. In an earlier iteration of gamification, which can also be termed “gamification 1.0”, Deterding and others think that gamification is related to gameful experiences and not a ‘free form’ of play. Hence, gamification practices seem to be mostly leaned toward creating rigid structures and rules but lack the free form of play. This idea of merely creating gameful experiences in gamification seems to be linked to the idea of procedural rhetoric.

It is Bogost himself who wrote extensively about the notion of procedural rhetoric – which he says is “a practice of using process persuasively” (2007, p. 3). Bogost believes that video games as an expressive and interactive medium can be used to persuasively author arguments into its processes (2007, p. 45). The theory of procedural rhetoric focuses on the use of formal structures and rules with software design to insert rhetorical arguments. This approach considers that people are (deterministically) persuaded through structure and rules. However, game scholar Miguel Sicart (2011) thinks that Bogost’s iteration of procedural rhetoric disregards “play” and goes against the idea that people are only persuaded by the game rules established by the designers. Sicart believes that a game’s meaning is created when players engage with the game’s rules; thus, the way people play within the formalized structure of play.

This idea that the formal structures of games persuade and form meaning for people is a deterministic view and is also embedded within ideas of gamification. The main criticism of



gamification is that it only uses formal structures and rules to persuade people and lacks the elements of play. Play, according to Sicart, is where people absorb the meaningful experiences of games. While formal structures and rules facilitate play, the two should go together for people to derive meaning from a game.

The problem with gamification does not only lie in its lack of playfulness but gamification is also criticized for how it is used to influence behavior and extract data. Bogost sees current gamification practices as a form of exploitation. Bogost sees gamification as a means for enterprises to extract value in the form of meaningless engagement instead of a medium capable of producing sophisticated experiences (2015, p. 72). He refers to gamification as “exploitationware” rather than the term gamification. Scholar Daphne Dragona also adds to this by giving gamification the term “pointsification” (2014, 229). Dragona uses this term because she thinks gamification uses the least important element of games with the only purpose for users to become active, engaged, and motivated. These criticisms illustrate a view of gamification that seems to evoke meaningless engagement and as something that is not beneficial to society.

While scholars argue that gamification practices evoke meaningless engagement, it is also important to consider that gamification still evokes some kind of behavior and forms part of culture in general. People’s behavior does seem to be influenced by gamification as seen in the research of *FourSquare*. In his research on *FourSquare*, researcher Frith (2013, p. 256) sees that people change their mobility pattern to collect badges in *FourSquare* – thus, people’s behavior is influenced to collect something *FourSquare* makes available to them. This also implies that there is relevance in considering the affordances the NRC app makes available for users, as these affordances seem carefully curated to influence people’s behavior. This research exemplifies why organizations choose behavioral goals, in the form of engagement, to deterministically influence people’s behavior. The critic remains that gamification software is created with the mere intention to influence’s people behavior, rather than creating a meaningful system.

Besides the behavioral goals of organizations, gamification is also used as a way to extract behavioral data. In her famous book *The Age of Surveillance Capitalism*, Shoshana Zuboff (2018) describes this type of data extraction as:

Surveillance capitalists discovered that the most-predictive behavioral data come from intervening in the state of play to nudge, coax, tune and herd behavior toward profitable outcomes (p. 8)



Gamification is seen as a symptom of *Surveillance Capitalism* by both Zuboff (2018, p. 215) and Bogost (2015, p. 69). They argue that organizations tend to extract behavioral data through “performance-based contests” and “incentive-based challenges” to gain profitable outcomes. Thus, currently, organizations do not prioritize gamification as producing something sophisticated and meaningful, or that gamification is more product-focused than human-focused, instead, gamification forms part of this surveillance idea that Zuboff writes about. Thus, it is important to consider that Nike is likely profiting from this behavioral data extraction through the NRC app like any other gamified app. Hence, for this research, it was useful to see how Nike is extracting value through the behavioral data they obtain through the app and to what purpose they intend to use this data because not only does this add nuances to this research, but it also allows for one to understand the motives behind some of the choices about the game elements of the NRC app.

To summarize, the problems with current practices of gamification mostly lie when it comes to the playful aspects of gamified software. The proponents of procedural rhetoric assert that it is through the rules (gameful aspects) of games that users find meaning and are persuaded in games. However, Sicart dismisses this and says that it is through the way users interact with games that they find meaning in games (playful aspects). This notion of finding meaning in games through its formal structures underlies the ideas of gamification. Gamification practices lack these playful aspects, and this consequently strips gamification software of conveying meaning. While this form of gamification (gamification 1.0) is still widely put into practice – game scholars have attempted to frame gamification which regards playful elements (gamification 2.0).

2.2 Reframing Gamification (towards Gamification 2.0)

In his attempt to reframe gamification, Deterding (2014, p. 324) presented the eudaimonic design – a design that facilitates users’ context, social situations and facilitates human collective goals. This design shifts the thinking of gamification from user exploitation to a practice that considers the user’s experience itself. In their work on dissembling gamification, Mekler et al. (2013, p. 1140) see that users are more motivated to participate in gamified tasks if there is a meaningful frame in their “gamified” experience. In creating a meaningful frame that is contextual to users, Tondello and others developed a “hexad framework”. The hexad user framework is designed by the authors to personalize gamified applications according to each targeted user (Tondello et al., 2016, p. 238). The authors identified six different motivations which fit user preferences in a gamified system: philanthropist, socializer, free spirit, achiever,



disruptor, and player (Tondello et al., 2016, p. 238). The idea to personalize gamified applications also fits with Deterding's (2014, p. 308-312) idea of situating and contextualizing play that can provide meaningful experiences for people.

Most importantly Deterding suggests there should be a motivational experience that incorporates playful and gameful elements in gamification (2014, p. 316). He uses the example of how banking can add trust to their services if they add "trust" indicators to their services rather than just adding gameful (playful) experiences to an existing banking service. This adds a more meaningful experience for users themselves and, it's a more human-centered approach to doing marketing.

Deterding (2014, 316) uses adding the example of adding "trust" indicators to banking services with that becoming a motivational experience. The author says that gamified software should *afford* these motivational experiences, and these should not be implemented deterministically within formal structures to influence people. It is the addition of adding playful elements that afford a motivational experience that is situated and contextualized to the users that can make gamified systems more meaningful to people. This shifts the idea of gamification 1.0, where gameful elements are deterministically used to influence behavior, to gamification 2.0, where play and user context are more prominent.

2.3 Organizational Studies and Sustainable Gamification

The research question is aimed at how organizations can shift their gamification practices which regard not only gameful elements but also playful elements, to satisfy both organizations themselves and their users. The idea of making gamification more meaningful by considering playfulness can work; however, current literature on gamification disregards organizational goals and interests with gamification. That is why in this research a middle ground between the conception of gamification 2.0 and organizational theory is created because works of literature on gamification tend to ignore the link between organizational theories and game theories.

Hence, it is useful to see how organizations themselves think and speak about gamification. In the interactive journal of marketing authors, Hofacker and others (2016, p. 25) see mobile technologies as a medium that allows for the opportunity to invest in gamification projects. This seems to suggest that mobile technologies are crucial to the implementation of gamified projects. This also suggests that gamification is constrained by and reliant on the affordances of mobile technologies.



Hofacker and others (2016, p. 26) define gamification as “the use of game design elements to enhance non-game goods and services by increasing customer value and encouraging value-creation behaviors such as increased consumption, greater loyalty, engagement or product advocacy”. This view on gamification still shows a traditional view of the concept of gamification; however, it does give a good overview of what businesses want to do with gamification – commercial organizations want to influence their consumer’s behavior with gamification. Considering that the NRC app is meant for consumers, the scope of this research is limited to gamification projects which are targeted at consumers, who are ultimately the end-users of the app.

This is further illustrated in the work of the digital culture researcher Niklas Schrape (2014, p. 23) where he comments that commercial organizations only intend to influence the behavior of their consumer to foster some kind of “loyalty” with gamification. He suggests that organizations use the traditional advertising model of ‘AIDA’¹ (a model which identifies cognitive stages individuals go through buying processes) as a technique to influence consumers’ interests, desires, and actions (Schrape, 2014, p. 23). He acknowledges that the model has been widely adopted within the field of advertising and he still thinks that this model forms the premise of any advertising incentives.

As mentioned in the introduction, the AIDA model is outdated and product centered. Kotler and others (2016, p. 109-110) suggest that brands should become more human-centered, especially in the age of digital communication, to differentiate themselves and to be able to connect more efficiently to their customers. Hence why instead of using the AIDA model as the premise of gamification to meet organizational goals, organizations should place gamification as part of a sustainability model to meet their goals to focus on a human-centered approach to their gamified products. According to Professor Paul James (2014, p. 4), sustainability models can be used by businesses as a way for them to go beyond “business as usual”. A sustainability model is then ideal for organizations to approach their gamified software.

Businesses seem to have a desire to become sustainable as part of their daily operations. Management professors Thomas Palmer and David Flanagan think businesses should have ‘sustainability’ as goals and strategies for long-term success (2016, p. 28). The professors categorized the sustainability goals into three categories: people, planet, and profit goals

¹ The acronym of AIDA model stands for awareness, interest, desire and action.



(Palmer and Flanagan, 2016, p. 35). According to Palmer and Flanagan (2016, p. 36), these long-term sustainable goals can also lead to profitable outcomes. While this 'triple P' model promises to be beneficial to society and organizations, the model is still met with criticism by scholars.

Mulligan (2017) says that much research has been done on organizations that prioritize the economical (profit) category in the 'triple p' model (p. 90). Mulligan provides suggestions for sustainable organizations by adding a fourth dimension to the sustainability model: cultural vitality. By adding cultural vitality to this dimension, Mulligan says that the 'triple p' can be thought of as the "circles of sustainability". This sustainability model thus consists of ecological, economic, cultural, and political domains (Mulligan, 2017, p. 94). Mulligan thinks this model functions to encourage conversations about sustainability in each domain between people. This model is useful for gamification to be reframed into a more meaningful user experience that can fit within organizational goals. Therefore, this research looks at how the gameful and playful elements of the NRC app can fit within each domain of the "circles of sustainability" to fit gamification within a human-centered organizational model. Each domain in the "circles of sustainability" model can be considered as the frame for the organizational goals that have been suggested. Each of these domains of the sustainability model asks questions of governance, human relationship with nature, use of resources, and cultural production. Each of these domains can be used as a way for organizations to meet their sustainability goals with gamification. Thus, this research shows how the elements of gamification within each domain can create a more meaningful and human-centered gamified system for people.

3. Methodology

The walkthrough method is used to help answer the research question of this thesis. Authors Light and others (2018) proposed the idea of using a walkthrough method to analyze sociocultural ideals in software apps. This method entails "slowing" down the "normal" use of apps and carefully walking through apps to expose certain explicit and implicit design choices which give away hidden affordances and tricks of designers (Light et al., 2018, p. 885). Before doing a walkthrough, Light and others suggest for one look at the "environment of expected use" of an app – which entails the vision and ideas of the app's developers. The second step of the analysis involves the technical walkthrough of the app. This is a step where a researcher must slow down the daily use of the app to look at the more mundane and salient features of an app.



The NRC app is used as a case study to argue for rendition gamification that evokes meaningful engagement and can fit within organizational goals. The walkthrough method is a guide that helped with the extraction of Nike's ideas, specifically what Nike aims for people to do with the app. This can account for the motivational experience that the app affords.

Organizational literature, in the form of Nike's annual report and its discourses on the NRC website was critically examined. Afterward, a technical walkthrough was done on the NRC app to delineate the gameful and playful elements of the app to argue their embeddedness with Nike's corporate goal of engagement (further elaborated in chapter 4.1)

There are two ways the "walk-through" of the app was done: The mediator characteristics of the app were analyzed – these are the ways that app creators tend to seek relationships with their users and how technical and cultural influences are conveyed to users (Light et al., 2018, p. 891). In the NRC app, these were formal systems and rules of the app itself. Secondly, the possibilities of play were analyzed through an affordance analysis. Matthew Curinga (2014) describes affordances as actions that make something available to a particular agent. Curinga builds his conception of affordance based on the social constructivist view that technology is constructed based on human interpretations, which can also be interpreted as a text with meaning. This in turn will allow one to see ideas of what the app considers important and not important. Thus, the affordance approach to the NRC app allowed for the derivation of the app's gameful and playful design choices. It is a useful method to see what Nike considers important for people to play or not play within the NRC app.

While Curinga's approach allows for one to research subjective design choices made in software, in game studies, to study "play" also requires a methodical consideration. Game scholars Jasper van Vught and René Glas argued for various play strategies as a method for game research. For this research, their transgressive play strategy (Van Vught and Glas, 2017) was used together with Curinga's affordance approach. The transgressive play strategy in this research was to see how Nike's corporate goals and the NRC's motivational strategy allow or limit play within the app.

This ultimately allowed for the extraction of ideas on how people can meaningfully engage with the app through gameful and playful techniques, offer criticism that can lead to better use of gamification, and allow for the placement of gamification within the 'circles of sustainability' model.



The questionable data ethics that companies extract from their users with gamification, which Nike Run Club also partakes of since the app is free and makes use of advertisements, is also discussed in this thesis. The data extraction techniques of Nike also allow for the understanding behind some of the choices of the game elements of the NRC app. These data extraction techniques deployed by Nike can also be found in their annual report and through an affordance analysis of the app. This for example adds a critical dimension to this thesis since these practices cannot go unnoticed. These limitations can also be useful to identify where current gamification practices can fall short of creating meaningful user experiences.

4. Analysis of the NRC app and implications for organizations

4.1 Analysis: Formal Structure and Rules of Nike Run Club (Gameful elements)

The first step in doing the research is to discuss how the goals of Nike are embedded within the formal structure of the NRC app. This is to see how Nike's organizational goals are entangled in the formal structure of gamification software. As Sicart (2011) and Deterding (2014) suggest, within the formal structure of games, people derive, albeit not deterministically, meaning from a game. These formal structures are typically created by organizations with the idea to create engagement and extract data based on user interaction (Hofacker et al., 2017 & Bogost, 2015). In the field of marketing science, engagement by marketing researchers Harmeling and others (2017, p. 312) as:

a firm's deliberate effort to motivate, empower and measure customer contribution to marketing functions.

This definition of engagement describes the typical organizational ideas behind gamification. An organization aims to motivate its customers to do something that is aimed at meeting the organization's marketing goal. Organizations empower customers by giving them the tools to do so. Ultimately, these marketing goals are measured through data extraction techniques. This definition of engagement is what is used in this research to discuss engagement.

Nike also has some form of engagement goal with the NRC app. Although Nike does not explicitly say what their goals are with the NRC app, in their annual report 2021, Nike (2022) suggests that they intend to create:



consumer connection, engagement, and affinity for brands and products, developed through marketing, promotion, and digital experiences.

Nike's goal to create consumer connection, engagement, and affinity through digital means (which includes the NRC app) is the overall conventional goal of organizations with gamification. Nike uses the NRC app to achieve their overall goal of consumer connection, engagement, and brand affinity. On their official NRC website, Nike (n.d.) claims that it motivates users to run consistently through the NRC app. Thus, the idea of running consistently can account for the motivational experience that Nike intends to afford for its users.

The interface of the app itself has four sections of how the app is structured: home, run, club, and activities (figure 1). These are the four structures where users can navigate through the app. It is based on this structure where the gameful elements/formal structure will be delineated by conducting a technical walkthrough of the NRC app. This part of the research will look at how Nike's overall goal of engagement is embedded within the gameful elements of the four sections of the app. within the gameful elements of the NRC app. This section contains a delineation of the app's gameful elements and a discussion of how these are embedded with Nike's corporate engagement goals and the app's motivational goal of motivating users to run consistently.

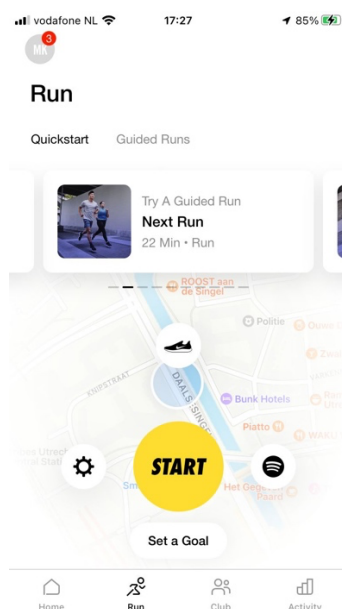


Figure 1: The Four Sections that structure the NRC app. This four-section is one of the ways how the NRC app aims to establish a relationship with its users (mediator characteristics). As these icons and tabs lead users to different kinds of functions within the app.



The Home Section

Upon opening the NRC app users land directly on the home page (figure 2), where it is possible to browse the app's social feed. The home section is modeled like a social-media feed where it is possible to see news related to Nike, friend's activities, and blogs from various Nike-curated coaches. The social media feed allows for users to "comment" and "like" a post that Nike determines; thus, Nike seems to establish one form of interaction here already – it only makes it possible for users to interact based on the content that Nike thinks is important for people to discuss. The social-media feed is a rigid structure of the app where it seems to be expected that users deterministically interact based on Nike products. This goal of Nike to create connection, engagement, and affinity to its brand is already reflected in the app's social-media feed. This is already a form of gamification 1.0 where gameful elements are used to deterministically influence the behavior of its users. The NRC's social media feed allows interaction on posts that of their choosing.

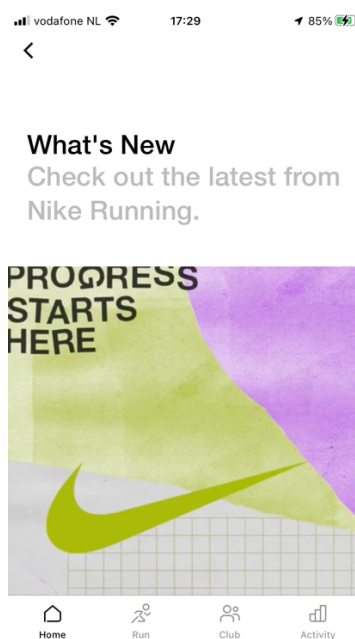


Figure 2: The homepage of the NRC app. This homepage mostly includes the latest updates about the Nike brand and the NRC app.

Nike's goals are also reflected in its *coaching and wellness* tab in the home section of the app. The coaching and wellness section has a selection of blogs from various experts from the health or wellness sector. Experts write blogs about how people can, for instance, improve their diet,



resist injuries while running or stay motivated to run. While these blogs do not explicitly promote Nike's brand, it does seem the blogs are made to help and motivate people to run – which alludes back to the NRC's app motivational goal of making people run consistently. This is an example of Nike's motivational goal with the NRC app and its embeddedness with Nike's goal of engagement since the blog is also used to motivate people to improve their running routines and this improvement can be done with the use of the NRC app.

The Run Section

The second section of the NRC app is the running section. The running section represents the core function of the app. This is where users can start tracking their personalized running sessions. There are two tabs in the run section – a *quickstart* and a *guided run*. At the quickstart tab, users have the option to immediately start running, set their tracking preferences, or connect *Spotify* with their run.

The tracked running functionality lets users track their running time, distance, or speed based on the users' location. Users can even assign any shoes, whether it may be Nike or other similar brands, to track. In the settings menu, it is possible to track an activity based on the setting of the user. For example, users can choose to track indoor/outdoor locations and heart rate.

It is possible to change the run's goal by changing the run's tracking metrics in the *quickstart* tab. Users can choose to track speed, time, and distance for each run. These metrics determine how the running session will be conducted. For example, if one chooses to track speed for a run, the app allows users to mark down "laps" during the run. In comparison, if one chooses to track distance for a run, users can select how many kilometers they want to run, and the tracker will stop working once the user reaches its goal distance.

On the guided run tab, it is possible to download customized running collections created by Nike itself. The guided runs establish a condition of play that is dependent on the user context – this means that Nike itself customizes a playlist based on its own systemic rules of its running tracker which users can choose depending on their needs. If users, for instance, cannot or do not feel like running, they can choose a *thirty minutes walking* playlist. The rules, thus, get customized based on the necessity of the user.

The running sections show a greater amount of freedom in play conditions that users can choose from when deciding what their running session will look like. This is a step toward a



more meaningful form of gamification as, Deterding (2014) argues, meaningful play occurs when play is conditioned and contextualized to the user. The ability to change the rules for play allows for users to customize their run suitable to their conditions.

The Club Section

The club section has various social functions where users can compare their stats with other people, create personalized challenges, and participate in events. If one decides to add someone else through the NRC app, they can compare and compete with the stats of their friends. This is also one way for people to engage with others through the NRC app. The app leaderboards only show statistics between friends that the users add to the platform – this is the only way for users to interact on the platform between friends. Since peer-to-peer interaction is relatively limited in the social features of the app, the leaderboard is thus seen as a gameful element that functions as a way for Nike to measure users' running metrics, which ultimately translates to their marketing engagement goal.

Personalized challenges are also gameful elements that people can use to achieve milestones. Upon completing these challenges, users can unlock badges that can be displayed on their profiles. These challenges, however, are curated by Nike – thus, users themselves cannot create their challenges. These milestones are gameful element which has a deterministic nature to them – since users themselves cannot create their own overall running challenges. For example, people with running limitations might have a propionate disadvantage compared to people without disadvantages with achieving these challenges. Thus, this is a scenario where play cannot be situated according to user context.

Activities Section

The final section of the app is the activity section, this is where users can view the overall statistics of their interaction with the app. These activities show one's overall running statistics throughout a chosen week, month, year, or all time. This is one way for users to track the overall running progression that they have used the app to track their running routines. This also adds a "milestone" dimension to the app as users can also view a bar chart of their running activities over the course of time. In this section, users can also enter previous milestones which had not been recorded with the use of the NRC app. Thus, it is one way for users to insert their previous running stats into Nike's ecosystem. This is one way for Nike to gain user data beyond the use of the app.



Engagement and NRC's Game elements

The gameful elements, which is the formal structure of the NRC app, are created in congruence with the NRC's motivational experience, which is to run consistently, and with Nike's overall corporate goal which is to create consumer connection, affinity, and engagement. This is reflected back in their social-media-like feed. They only allow people to interact based on their curated posts; thus, restricting people to interact on other subjects unrelated to Nike's brand. Users, for instance, cannot coordinate their running session within the app itself.

Furthermore, the app's tracking system is designed in a way that users can track specific metrics, track their shoes, and customize their tracking conditions – this is also a way to have users run consistently and for users to engage with their brand - as all the running and shoes data will go into Nike's database (more on data extraction in chapter 4.3). The social function where users can compare stats with friends is also limited to only comparing stats – users cannot freely interact the way that Nike deterministically thinks people should interact with each other. Users can also track and insert their current and past overall statistics in the activities section, which is a way for users to insert their running statistics into Nike's ecosystem; thus, this is also a form of increasing engagement with Nike's brand. Lastly, it is the running section that is designed to situate and contextualize play according to users' goals, since they allow for users to modify the conditions for play.

There is friction between gamification 1.0 and between gamification 2.0. There are some features of the app, namely the core running function and blogs, which aims to motivate users to run consistently. However, at the same time, the corporate goal of engagement does restrict meaningful interaction within the app. This is seen in the leaderboard, social functions, and challenges of the app as they do not facilitate many interaction possibilities, and the motivational experience of running consistently is not embedded within these functions. The friction between gamification 1.0 and gamification 2.0 can be translated, in this scenario, to the friction between customer engagement and meaningful play. This is the friction that this research will break with the circle of sustainability model.

4.2. Analysis: The possibilities for free-form of interaction (playful elements)

In chapter 4.1, the gameful elements/formal structure of the NRC app and how these are embedded with the motivational experience of the NRC app (consistently run) and Nike's



overall engagement goal were discussed. Gamification is criticized because these formal elements are usually designed to deterministically persuade people to behave according to the needs of the organization – this consequently makes gamification less meaningful (Bogost, 2015; Deterding, 2014; Schrape, 2014). Therefore, Deterding (2014) argued for a more meaningful version of gamification which considers play. It is the motivational experiences and gameful elements of gamified software that can facilitate meaningful play. Hence in this chapter, I will discuss how play, or free-form interaction, is facilitated within the gameful elements of the NRC app. By delineating the possibility for play in this chapter I can argue and suggest a more meaningful form of gamification which can fit within the sustainable model.

It is in the app's core function where there is more free form of interaction. In the *quick run* section, the app allows users to choose their own goals (kilometers, distance, and speed) and customize how they are tracked. Upon choosing their goals, the app starts tracking the users based on the desired goal. The feedback system informs the user of the number of kilometers ran, calories burned, heart rate and time spent running. The user can influence this feedback system by walking or running in a geographical location. The app also recognizes if there is an incline or decline; thus, recognizing the heart rate and increased calories being burned. This is the core way that users can interact with the app.

The app also makes use of the location function in its core running function. The app makes use of the phone's map to determine the user's locations within the physical world. While the app does not allow users to decide the desired location that they want to run, the app also does not choose the location for the users; thus, it is a precondition that the user knows the spatial surroundings where the user will make use of the NRC app. Thus, the interaction with space is of less importance for the NRC app as it does not aim to guide users throughout physical spaces. This does not bound the users to any geographical location and thus increases the possibility for play in physical spaces, albeit it does require users to be familiar and already have a pre-determined location for their running activities.

Deterding (2014) thinks it is important for gamifiers to consider the context of the user when considering a meaningful gamified system. The NRC app does seem to encourage spatial exploration as this is left for the users themselves to choose the location they would like to run. Thus, this possibility of play can be more meaningful for users as they will not be restricted by their physical spaces to be able to run. What the app does, in this case, is that it turns spatial exploration, through the act of running, into metrics that benefit to measure running outcomes. These metrics in turn can be used for Nike to extract behavioral data.



The *guided run* section opens a more personalized form of play. As previously mentioned, *guided runs* are a playlist of runs customized by experts who work together with Nike to suit the goals of the user. For example, the app allows users to download a playlist called “tough day, easy run”. According to the app, this playlist is customized by Nike’s head coach called Chris Bennet. In this playlist, he curates a run that is suitable for people looking for a comfortable and easy run instead of a rigorous one. This playlist is also integrated with *Spotify*, which includes music that fits an easy run and a one-minute motivation. There are much more personalized playlists similar to this example. The guided runs allow for a different form of play; however, at the same time, it is mainly restricted to running playlists that are created by the coaches at Nike. The app does not allow users to customize their playlists with their own rules, soundtrack, and running options or download a playlist from external parties. This can consequently also minimize play for users, for example, with disabilities or with other running goals.

For gamification to be meaningful it needs to consider different types of users. Therefore, Tondello and others (2017) created the hexad framework: which is a framework that identifies different types of user types in gamification. The authors argue that there are users who are motivated by purpose, relatedness, autonomy, competence, challenges, and extrinsic rewards. Through the design choices in the NRC app, the app can provide a meaningful experience for those users who are motivated by extrinsic rewards (referred to as players) and those who seek competence (referred to as achievers). Tondello and others (2017, p. 231) think that users who are motivated by extrinsic rewards are motivated by badges, leaderboards, or achievements. The NRC facilitates these users by having leaderboards, badges, and achievements which can all be viewed in the *activities* section. At the same time, it is possible for users to manually insert their stats of runs they have done outside the app. The NRC’s system of rewards can thus be manipulated if users choose to insert false numbers for the sake of earning an achievement. Thus, this can also strip away the meaning of badges and achievements in the NRC app. For users who are motivated by competence, Tondello and others (2017, p. 231) argue that these users seek progress through a system by completing tasks. The NRC app adds a layer with game elements, such as leaderboards, feedback systems, badges, and achievements, for running purposes. It is aimed at motivating people to run consistently; hence, it seems to motivate the *achievers* user type mostly since the system is aimed for users to complete an already daily task of running.

Tondello and others (2017, p. 231) think people can also be motivated by the social relatedness of a gamified app. As discussed in chapter 4.1, these social factors are restricted to merely



comparing stats with friends in the leaderboards section and the social media-like feature of the app is also restricted for people to interact mostly based on posts that are curated by Nike. Thus, those who seek social relatedness through the NRC app must rely on their own physical connections and creativity. The app only facilitates the statistical comparison of running metrics between peers in their leaderboards section of the app.

The NRC app provides the motivational experience of *consistent running* for people who aim to use the system for simply running or for those who are motivated to earn badges and achievements. Play is facilitated in the *quick run* and *guided runs*; however, these are still curated and limited by the app. These are limited because there is friction between corporate engagement goals, which aim to measure, motivate, and influence customers, and meaningful play. Some of the gameful elements of the NRC app restrict play while the app's core function itself does facilitate play.

Therefore, for gamification to be more meaningful within an organizational context, organizations need to shift their focus from merely creating engagement to creating a product that is human-centered (Kotler et al., 2016) and facilitate meaningful play (Deterding, 2014). That is why in the following chapter, by using the NRC app as an example, how organizations can move from engagement models to a sustainable model, which is focused on creating human-centric goals, of creating gamified software, will be argued.

4.3. Generating Data from Play

For most organizations, engagement is the main goal of gamification software (Hofacker et al., 2017). However, besides engagement being the goal, gamification software is also used as a method to extract data from users. This, according to Bogost (2015), is also a form of meaningless play. Nike also uses the NRC app to extract data from users' interactions in the app. In the app's privacy policy, Nike states that it extracts personal information such as user demographics, and personal characteristics (based on the input of the user itself in the NRC app), and most importantly it also extracts the fitness data input or generated by the user within the app. Nike uses the data for personalization, direct marketing (see figure 3 for example), general research, and consumer analysis, and it sends the data to third parties for social media targeted ads. Nike claims to use these data to improve its services to its customers.

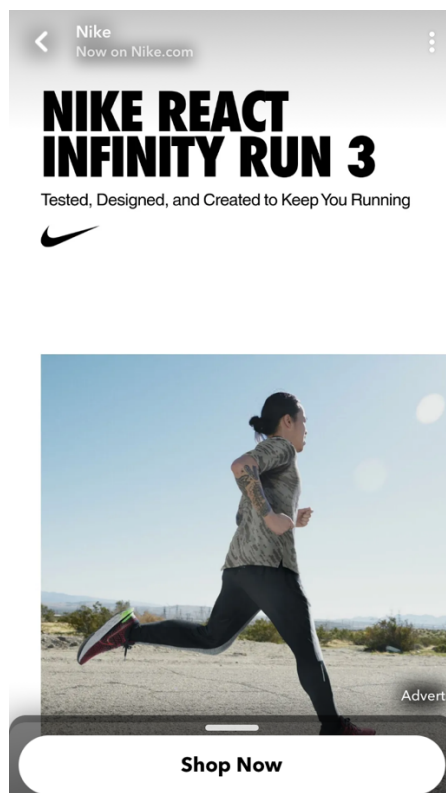


Figure 3: a Nike shoe targeted ad on Snapchat after repeated use of the NRC app

To reiterate Zuboff (2018), this is a form of extracting data through “performance-based contests”. This is one of the motives, according to Bogost and Zuboff, for organizations to develop gamification software - to extract data from users who use a gamified app. While Nike explicitly mentions that their goal with their digital software is engagement, there is an element of behavioral data extraction that can influence how the software is designed. Each number that can be generated by people within the app is monitored and used for Nike to enhance, customize, and improve its services.

The data extraction ethics can be a subject for another discussion; however, it is still an important factor that can also influence play, as gameful designs can also be designed to extract specific data – these gameful designs do not necessarily facilitate play. For example, the app’s leaderboards do not facilitate play as one can only compare stats and influence them with their running time. However, the leaderboard does facilitate user engagement with Nike and Nike can obtain data from the metrics, such as weekly running time or distance run compared to a friend, from these metrics.



While the NRC app has some gameful designs which can restrain play, its core function for running facilitates many possibilities for play. The NRC app is a nuanced case of an app where play is limited because of brand engagement goals and data extraction on the one hand; however, on the other hand, there are many possibilities of play in the core function of the app as users can freely navigate through their desired spaces while running and customize their own play conditions. The app shows that there is a friction between gamification 1.0, where the app's gameful elements are deterministically designed for people to engage with Nike's brand, and gamification 2.0, where there are free-form of play that motivates consistent running for some user types. This friction also translates between the corporate goals of engagement and meaningful systems for play. Scholars argue that it is this goal of engagement that limits play and limits users to obtain meaning from gamified systems (Deterding, 2014; Bogost, 2015; Todd, 2017; Dragona, 2014). Therefore, the next chapter aims to disentangle organizational engagement goals from gamification and place this within the four domains of the circle together with Deterding's eudaimonic design for meaningful gamification. These two models unite the conception of meaningful gamification of game scholars together with a model that allows organizations to place their gamification goals within. This helps organizations meet their sustainable goals.

4.4 Disentangling engagement

The circle of sustainability model is used as a tool for a wide range of organizations and agencies that are involved in city planning, social welfare, and environmental sustainability (Mulligan, 2017, p. 93). It is a useful tool to incite conversations about organizations' impact on societal wellbeing. Due to this model's emphasis on societal wellbeing, it consequently becomes a suitable model to place organizational goals for (meaningful) gamification within. As argued before, gamification software is part of cultural production and has a societal impact; therefore, organizations can use this model for gamification to assess and measure their societal impact with gamification.

The four domains of the circle of sustainability, which are economic, political, ecological, and cultural vitality domains, can be indicators that can help organizations create gamification software that has greater meaning and impact on society than gamification. This research showed how there is friction between Nike's goal of engagement and meaningful play. It is in this chapter that this friction will be broken by laying out a sustainable model which can help with the creation of meaningful gamification software.



Economic Domain

James (2014, p. 52) defines the economic to be a domain that emphasizes the practices, discourses, and material expressions associated with the production, use, and management of resources. Gamification relies on the use of hybrid spaces; thus, producing and creating game-inspired elements in the digital environment within gamified software does not make use of many physical resources. However, gamification is heavily used to influence behavior in physical spaces (Frith, 2013). This can have an impact on the resources instantiated in physical spaces if one is using gamified software. The NRC app, for instance, only encourages the tagging and tracking of shoes. The NRC app allows users to set a limited number of kilometers that one must run with the shoes. Upon completing this set goal, the app encourages the users to change their shoes which can be tracked. This is the only resource that the app encourages people to use and change. Other resources that are used for running are dependable on users themselves.

The NRC app makes a solid case for minimal use of resources in the physical space. Other gamified software, however, can encourage people to spend money on resources by using game-inspired elements; consequently, encouraging greater use of material resources in the physical world. Thus, for gamification software to be sustainable in an economic domain, organizations need to ask questions about the number of resources that can be instantiated in the physical space if one uses gamified software. This allows for a form of play that is more sustainable when it comes to the use of natural resources and this form of sustainable play is beneficial to society. This creates a greater meaning for users and the society in which organizations operate in alike.

Political Domain

The political domain emphasizes practices and meanings with basic issues of social power (James, 2014, p. 53). The political domain asks questions about social relations between authority and society. When it comes to gamification, this domain forms a very important factor to consider when developing a gamified software as questions of organizational interests are entangled with the design choices of a gamified software. The social aspects of the NRC app show that play is limited when it concerns interactions with friends or with other users within the NRC app. Users can choose to have a running buddy in physical spaces; however, the NRC app only facilitates the comparison of stats in its leaderboard functionality as a mediator for sociality within its digital space. This is because their social content is mostly aimed at creating engagement with the Nike brand as evident in their social media-like feed which is solely created to showcase the Nike brand and create customer engagement. The leaderboard



statistics also function as metrics for data extraction. Thus, this example of the limitation of play shows how the organizational goal of creating brand engagement and interest in behavioral data can govern how the gameful aspects are designed for a gamified software.

For the political domain, thus, it is useful for organizations to reconsider their general goal of consumer engagement with the circle of sustainability model as the model considers societal wellbeing, in this case, this model would consider the needs and wellbeing of end-users of gamification. In this sense, following Deterding's (2014) eudaimonic design for meaningful gamification, gamified software needs to open more possibilities for play which is embedded with a motivational experience and need to be contextualized to different user types. In the NRC app it is seen that only two user types are facilitated to meet their goals through the app. People who seek sociality or social connection through play cannot derive any meaning from this app as the play possibilities of the social aspects of the NRC app are restricted due to corporate goals focusing mostly on creating consumer engagement. This means that organizations need to consider that people derive meaning from games in the process of play and these meanings cannot be deterministically implemented in gameful designs only to influence people. That is why organizations need to consider this sustainable model for gamification as this model seeks to address users' wellbeing and by evoking meaning within a cultural product is a way of "taking care" of users' well-being. If organizations shift their goals from merely creating engagement to a sustainable model, it affects the governmentality of gamified software, and this will consequently lead to more consideration to the meaning people receive from interacting with a gamified software.

Ecological Domain

The ecological domain entails discussions about human engagement with and within nature – whether it may be a built-in environment or wilderness areas (James, 2014, p. 52). The NRC app allows for the exploration of physical spaces - which is one of the playful elements of the NRC app. This element of play is encouraged in the core function of running within the app. The app does not restrict users to running in a pre-determined route, rather users themselves have the freedom to choose their own physical space for running. The only thing the app does when it comes to spatial surroundings is the tracking of the location where users decide to run and guide users through the chosen space. Furthermore, the NRC also allows users to track whether they are running on a treadmill or outside – this adds a necessary context to the spatial surrounding of one's running session. The NRC app shows the embeddedness of physical space and digital space in gamification. The NRC encourages people to interact/play within their



surroundings in a harmless way, as people are mostly encouraged to run through their surroundings. This makes play more meaningful for people engaging with the app.

For the ecological domain, organizations need to consider the situatedness of their users. In Deterding's (2014, p. 318) eudaimonic design he argues that motivational experiences emerge through the relation of actors and their total environment. Thus, for a greater meaningful play experience, organizations need to be able to facilitate play conditions that consider the situatedness of users.

Cultural Domain

The cultural domain emphasizes "the practices, discourses and material expressions, which, over time, express the continuities and discontinuities of social meaning of life held in common" (James, 2014, p. 53). In short, James considers this domain to be about questions of meaning that bind humans together within spatial and temporal particularity of culture. Thus, this domain is typically used as a way for people to ask questions about the meanings behind their products. What this means for gamification is that within this domain organizations need to think about the meaning they intend to convey to their users. The key to this domain is creating affordances for motivational experiences.

To reiterate, Deterding (2014) says that a meaningful gamification system needs to compromise the creation of possibilities of play (playful elements) within rigid structures (gameful elements). Both playful and gameful elements must afford a motivational experience. In the case of the NRC, it motivates users to run consistently with the app. This is done through with inclusion of curated guided runs by coaches, a quick run that facilitates free-form of play, and the ability to freely customize a running session with the users' preferred running settings. Thus, it is the gameful elements that should allow and structure play. Both elements need to afford a motivational experience. In the NRC app, this motivational experience becomes crystallized in the way one plays with the platform. Organizations need lay-out their intended motivational affordances when considering the cultural domain of their gamified software.

A meaningful experience is embedded with culture and gamification is also part of the ludification of culture; thus, organizational gamification software that is produced for the market also becomes part of cultural production. The shift from gamification 1.0, which is mostly focused on brand engagement and data extraction goals, to gamification 2.0, which is focused on meaningful engagement needs to happen for more sophisticated gamification



software which can help improve people's lives or where people can learn something new. This is not only from a cultural perspective but also in the field of marketing it is argued that consumers are increasingly starting to feel better interacting with brands that are human-centered and value-driven instead of product-centered brands (Kotler et al., 2016).

Organizations can create a more meaningful and human-centered rendition of gamification by using gameful and playful elements which afford a motivational experience according to different user types. By considering the cultural domain in gamified software, organizations can thus shift their focus on to the type of motivational affordances they intend to create with gameful and playful elements.

5. Conclusion and Discussion

As digital technologies rapidly keep developing, it is more important than ever to discuss the consequences of their products. Gamification is part of the ludification of culture. Therefore, the call for organizations to create more meaningful gamified software should not be ignored. By moving away from developing gamification software using the AIDA model, which is focused on driving brand engagement, organizations should instead shift their goals with gamification to the circle of sustainability model which consists of an economic, political, ecological, and cultural domain. The model allows for a more human-centered approach to marketing instead of a product-driven approach which is solely focused on creating brand engagement. This approach to marketing fits with a more playful form of gamification and considers organizational interests of becoming more sustainable.

Organizational goals can thus be combined with a more meaningful form of gamification. Shifting the goal of engagement to a sustainable goal also shifts the thinking that gamification is merely used for user exploitation in the form of data extraction or meaningless engagement. By implementing a motivational experience together with more playful elements within gameful elements of gamified software which facilitates different kinds of users, ensures a more meaningful form of engagement within gamified systems.

Gamification has been rightfully criticized for its use of rigid structures and lack of a free form of interaction (Deterding et al., 2011). Commercial organizations are criticized for creating products that are meaningless simply to create brand engagement and extract data (Bogost, 2015; Dragona, 2014; Zuboff, 2018). This research focused on shifting organizational goals to a



model which can help create proper meaning for users and argue on how play can be facilitated within formal structures of gamification software.

This research aimed to answer the question of 'how can the four domains of the circle of sustainability be used for organizations to create meaningful gamification software?'. The NRC app showed friction between engagement goals which constrains play and meaningful play. The circle of sustainability was used as an organizational model which helps shift organizational goals of engagement to remove this friction.

Organizations can place meaningful play within each domain of the circle of sustainability model. First, the economic domain of the circle of sustainability model considers meaningful and sustainable play when it comes to the number of resources being instantiated in a gamified software. Second, the political domain considers organizational interests and goals and their embeddedness with how their software is governed and designed. That means organizations need to evaluate how their goals can facilitate free form of play. For the ecological domain, organizations need to consider users' situatedness for play within their spatial surroundings. Lastly, for the cultural domain, organizations need to lay-out how their systems can afford a motivational experience when people play through its gameful elements.

The NRC app showed how some of the features of the app that is solely focused on creating engagement and extract data can limit play within those features. However, the playful possibilities showed that these features can carry more meaning. Thus, the circle of sustainability model is a useful model for organizations to place meaningful play within and can contribute to making their businesses sustainable for societal wellbeing.

5.1 Research Limitations and Suggestions for Further Research

For this research a walkthrough analysis was used, together with an affordance and transgressive play strategy, to analyze the NRC app with the goal to create a more meaningful rendition of gamification within an organizational context. This approach was useful to delineate the different gameful and playful elements within the NRC app. However, this approach does not measure the power dynamics between Nike and its users themselves. Power dynamics is a point that was touched upon in the political domain of the circles of sustainability model – that organizations should ask questions about how they intend to govern their gamification software. At the same time, there should be more questions on the governmentality of gamification software. Most specifically there should be more scrutiny on



how a companies' ideologies can cause a power dynamic between companies and users through game-inspired elements as gamification is used by many companies to influence people's behavior.

The notion of data extraction within gamified software was also touched upon in this research. It has been addressed how these data extraction techniques can also restrict play within a formal structure. As seen with the NRC app, with the example of its leaderboard function, these techniques usually call for the creation of a meaningless gameful system, simply for the purpose of data extraction. While this embeddedness with gameful designs is briefly discussed in this research, the ethics of data extraction by using gameful and playful elements is a suggestion for further research as this can contribute to a greater conception of meaningful gamification.

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