The Ethics of Gamification in a Marketing Context

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Abstract
Gamification is an increasingly common marketing tool. Yet, to date, there has been little examination of its ethical implications. In light of the potential implications of this type of stealth marketing for consumer welfare, this paper discusses the ethical dilemmas raised by the use of gamified approaches to marketing. The paper draws on different schools of ethics to examine gamification as an overall system, as well as its constituent parts. This discussion leads to a rationale and suggestions for how gamification could be regulated and/or controlled by more informal codes of conduct. The paper ends by outlining a practical framework which businesses can use to evaluate the potential ethical implications raised by their own gamified marketing techniques.

Key words: Gamification; ethics; regulation; marketing; stealth marketing

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1. Introduction

Gamification is becoming increasingly popular in industry (Hamari & Parvinen 2016), particularly as a marketing tool. Research on gamification lags behind practice however, although some frameworks are starting to emerge (e.g. Maican et al. 2016; Plangger et al. 2016; Rafttopoulos 2014; Robson et al. 2015). To date, the ethics of gamification in a marketing context have largely escaped scrutiny despite some similarities with other techniques that industry closely monitors (e.g. subliminal advertising). Marketing ethics is a well-established and ongoing area of interest (Bartels 1967; Ferrell et al. 2015; Gaski 1999; Schauster & Neill 2017; Schlegelmilch & Öberseder, 2010; Tsalikis & Fritzsche 1989), and it is this conversation we join overall. Specifically, we aim to motivate further dialogue and possible action on the ethics, and potential regulation, of gamification.

The aim of gamification in marketing is to get consumers to buy, as opposed to other gamified contexts that aim to change people's behavior in other pre-determined ways (e.g. Rafttopoulos 2014; Sharahi et al. 2014). A firm designs an engaging experience, which then encourages an audience, or 'users', to make a purchase. Gamification includes aspects of design that covertly or subversively persuade engagement. In digital game design - a common reference point for designers of gamified systems - and more specifically within advergaming, manipulating the pace of the game experience and the extent of congruence between the game and the product, for instance, can both influence brand recall and buying behavior (Vashisht & Sreejesh 2015a, 2015b, 2016). The covert nature of how such design features work at a cognitive level raises ethical questions over potential deception. These questions are likely to become increasingly important as research reveals the drivers of effective gamified systems and allows firms to create more powerful, more sophisticated designs that become stealthier in their persuasion. To encourage the responsible development of gamification, we argue that both industry and researchers need to reflect more actively on ethics. So far, this has not been done, and failing to do so potentially puts consumer welfare at risk. We argue that this is an important issue to address, especially in the context of gamification's increasing popularity.

To date, research has centered on illustrating the effectiveness of gamification in various settings. A few rudimentary frameworks have also emerged (e.g. Maican et al. 2016; Plangger et al. 2016; Rafttopoulos 2014; Robson et al. 2015). Our focus on ethics is divergent, but adds value to the evolution of gamified systems in both theory and practice: It is a starting point to examine the potential need for more specific monitoring in industry, and how this might be developed. A multifaceted ethics lens deepens our exploration.

We structure the paper as follows: We briefly describe gamification, and the principles of the different schools of ethics from which we draw. We consider the moral worth of gamification as an overall system, and then its constituent phases. We summarize, and then discuss how the marketing industry could oversee gamification in practice, both formally and informally. We offer examples, before concluding.

2. Theoretical Starting Points

2.1 Gamification

Definitions of gamification vary. Deterding et al. (2011) offered early clarification with 'the use of game design elements in non-game contexts' (1). Yet there are 'growing pains' in the development of the theory - a lack of harmony between disciplines contributes to a discord in gamification's nomenclature, assumptions, and emergent models (Hamari & Parvinen 2016, p. 1307).

Despite this fragmentation, the literature agrees upon two basic principles. First, the utility of gamification is high across a range of settings (Hamari et al. 2014; Seaborn & Fels 2015). Recent evidence comes from community and volunteering contexts (Otake et al. 2015), education (Hew et al. 2016), and tourism (Stadler & Bilgram 2016). Deterding (2015) further notes its utility in industry, especially as a marketing tool. Robson et al. (2016) for instance, describe how advertising agency Droga5 launched a combined gamified marketing campaign for client Bing, and recording artist, Jay-Z. The results were a 12% increase in traffic for the former, and eighteen weeks at the top of the New York Times best seller booklist for the latter. Other marketing examples include fitness app. 'Nike+', and McDonald's Monopoly game.

As a second agreed principle, the literature - and practice based frameworks (Deterding 2015) - all see engagement as pivotal. Models are scarce (Deterding 2014), and fail to reflect the important difference in how games and gamification relate to engagement. In the former, engagement is the behavioral outcome. In the latter, engagement is a system output that drives the desired behavioral outcome. Despite this difference, and its implications for the design process of gamified systems, it is agreed that engagement generally is important.

It is not our purpose to build a model of gamification in this paper. Rather, Figure 1 organizes the ‘flow’ of gamification in its broadest sense, and provides the organizing framework for our ethics discussion. An initial phase of engagement, as a system output, is at the front end. A phase of intended behavior follows as an outcome.

As a final theoretical starting point, we scope gamification as a distinct concept in comparison to other forms of persuasive marketing. On the one hand, they raise similar ethical concerns on aspects of manipulation, and opaque processes. Personalized digital marketing, for example, works by using cookies to track internet browsing histories (Simon et al. 2016), but raises questions on just how aware audiences are of this process. These concerns extend to comparatively low-tech marketing methods, which often work on sub-conscious levels of perception and sense-making. Product packaging, for instance, is often designed to be intentionally persuasive (e.g. Rundh 2005; Spence 2016; Velasco et al. 2015). Inserting transparent windows into food packaging more robustly captures consumer attention (Simmonds & Spence, in press), for example. Other approaches focus on manipulating emotions. In slice-of-life advertising, for instance, firms hope that audiences will conclude that their own lives will improve in the same way to those of the actors using a featured product presented in a carefully scripted advertisement. The aim is to stimulate consumer buying, as is with the related approach of slice-of-death, where consumers seek to avoid negative consequences (Arora & Arora 2017; Belch & Belch 2009; Grancea 2012), again by making a purchase.

Whilst these approaches and gamification all raise ethical concerns, we distinguish the latter on the basis of the extent and type of interactivity between the firm and the targeted audience. The premise here is that gamification first differs on the extent to which it is able to engage consumers, and second, the distinct methods it uses to elicit engagement.

In packaging design, slice-of-life/death, personalized advertising, and so on, the ‘flow’ of information is largely one-directional, i.e. flowing from the firm to consumers. The extent of interactivity between the product/brand and the consumer is also limited to a cognitive basis, where he or she deliberates the product’s features, draws comparisons to substitutes, and so on. Behavioral interaction is largely absent until after the consumer makes a purchase. In describing engagement, researchers have made the distinction between cognitive and behavioural types (Broadie et al. 2011; Hollebeek et al. 2014), with the most powerful bases having more than one genre present. Thus, the simple interaction between firm and consumer in more traditional types of marketing might not strip consumers completely of their autonomy: Whilst subversion and emotional manipulation may be present, they are, comparatively with gamification, much shorter, one-directional, and non-experiential, suggesting a much weaker basis for engagement.

We accept though that social media now gives consumers the opportunity to endorse or vilify products (Bernritter et al. 2016; Dessart et al. 2015; Scheinbaum 2016). In one sense this ‘customer engagement behavior’ (van Doorn et al. 2010) enables traditional marketing approaches to piggyback onto the richer interaction afforded by social media platforms, potentially affording greater extents of ‘customer brand engagement’ (Hollebeek 2011, 2013). Yet, this still contrasts with gamification, which offers much more complex, concentrated, and repetitive pre-purchase interaction, which is purposefully designed into systems to more extensively manipulate engagement. Comparatively, where traditional marketing is bundled with social media, the firm has less control over if, when and how consumers will tweet and post, and cannot regulate content.

The type of interactivity that gamification creates also distinguishes its identity. We draw comparisons to the concept of co-production or ‘co-creation marketing’ (Etgar 2008; Gamble & Gilmore 2013; Zwass 2010). Typically, the audience’s role is beyond that of participation, where they co-produce content as designers (Frow et al. 2015), influence the direction of ‘play’, and even co-create brand identities (Black & Veloutsou 2017; Ramaswamy & Ozcan 2016). Both gamification and co-creation marketing share a deep sense of participatory engagement and immersion, which is not experienced pre-purchase via slice-of-life, packaging design, and so on. However, we also emphasize differences between gamification and co-creation marketing: The methods of motivating users to both engage and purchase are much more powerfully and subversively persuasive in gamification. Co-creation marketing lacks the same extent of manipulation in that formalized, structured game mechanics that underpin the experience of gamification are absent.

2.2 Ethics

Marketing ethics is not especially new and spans a wide variety of topic areas (e.g. Murphy 2010). Here, we are exploring the ethics of gamification as a practice based technique of persuasion. Thus, we adopt a normative approach, which Kagen (1998) argues as being most appropriate to exploring ethics in action, and which can assist firms on choosing ethical courses of action (Michalos 1995). Gamified systems involve a range of stakeholders, and varied system features. The experience, specificities of intended outcomes, and the extent of user engagement, for example, all differ between systems. This diversity, and the spectrum of individuals involved in the process, suggest that ethical considerations need to be sensitive to this variation. To accommodate these nuances and to encourage a deeper analysis, we refer to a range of perspectives as our normative theoretical lens. We collapse these into three well-established schools of ethics (e.g. Chakrabarty & Bass 2015; Thorpe 2014): Consequentialism; deontology; and virtue ethics.

Consequentialism judges the moral worth of actions by examining predicted end outcomes (Bentham 1789/1961; Gandz & Hayes 1988; Kujala & Pietiläinen 2004; Mill 1861; Sidgwick 1907). How those outcomes are achieved is irrelevant (Kagen 1998). In contrast, deontology focuses on the values implicit in the means of producing the end outcome, i.e. the actions and decisions involved (Kamm 1996; Kant 1785/2005; Koehn 1995; Rawwas et al. 2005; Ross 1930). End outcomes are unimportant. Here, what is 'good' and what is 'right' are indistinguishable, and people are bound by moral duties (Kant 1785/2005).

Both approaches suggest that ethics are external to the person (Waller 2005). They allow objective, generalizable 'rules' to emerge on gamification's ethics from a range of stakeholder perspectives. Conversely, virtue ethicists contribute to the discussion by focusing on the individual. From this approach, it is the ingrained and subjective values of a person that determine actions as morally worthy or not (Aristotle [see Broadie 1991]; Hume 1739/1949; Koehn 1995, 1998; Murphy 1999; Stocker 1976; Whetstone 2001). Like consequentialism and deontology, this approach also accommodates a range of stakeholder positions, but additionally emphasizes individual decision making. Table 1 illustrates the principles of each approach.

3. Ethics of Gamification as an Overall System

Strategically, and from the perspective of the organization, 'good' gamification is 'successful' gamification. The firm designs an engaging experience to bring about an intended behavioral outcome. In marketing, a good outcome typically relates to economic gain for the firm - e.g. targeted users buy (more of) the firm's products or services. Although users are mindful of their participation, the gamification process still involves substantial covert activity. Users might be unaware that features of the experience are designed to influence behavior, for example. Indeed, these influences work most effectively when they are as subtle and covert as possible. Additionally, firms may actively hide the intended outcome from users.

From a consequentialist perspective, the ethics of the overall system depend on the comparative number of people between two different groups - users, and others affected by the intended outcome (shareholders, employees, host communities, etc.). Increased sales, for instance, could produce positive effects such as profit sharing, increased value of stocks, or individual career advancement. Whilst such benefits might not offset the 'loss' to consumers, the principle of the greatest good for the greatest number remains paramount. Therefore, if the amount of 'good' for stakeholders is more than that for users, covert persuasion and an oblique aim are not only justified, but reflect the most ethical course of action: Deceiving a comparative few to benefit the majority is more ethical (Kagen 1998).

The problem is that for consequentialists moral judgements are based on predicted outcomes (Mill 1861; Kagen 1998; Sidgwick 1907). Firms are currently failing to exploit gamification's potential power to its greatest extent. They typically assume design elements that are empirically unsupported. They fixate, for instance, on user or 'player' typologies, which have lost credibility (Deterding 2015). Yet, development is rapid (Hamari & Parvinen 2016), with the implication that 'how to' templates are in flux, and will remain so as firms respond to an increasingly active body of research to improve the persuasive power of gamified systems. Currently, this instability makes predicting outcomes difficult and devalues a consequentialist perspective, as firms can only determine the 'greatest good for the greatest number' in retrospect, and even then only numerically.

Deontologists reject both numerical and qualitative bases of 'good' as rationales for 'harm' (Schneiderman 2012). This would include gamification's deception. What is 'right' and what is 'good' are indistinguishable, and it is the means to the end that is the focus of moral judgement (Kamm, 1996; Kant 1785/2005; Ross 1930). Moreover, the firm can avoid deception completely, without sacrificing opportunities for greater sales, by adopting other more transparent strategies - repositioning its brand, changing its pricing strategies, or investing in R&D, for instance.

Developing generic regulations to clarify limits of acceptability makes any policing relatively straightforward. Yet it also removes the moral responsibility from the individual. For virtue ethics, this is a problem. Individuals within firms each have their own moral framework that differs on the extent of characteristics such as wisdom, justice, and sincerity. It is these that should determine moral action, rather than generalizable rules (Plato [see Cooper & Hutchinson 1997]). The focus on individuality reminds us that different people have varied roles in the gamification creative process, including the initial decision, its design, implementation, evaluation, and so on. It also hints that different phases of the process, as in Figure 1, might reveal different ethical conundrums. We start our discussion with 'engagement'.

4. Gamification, Ethics, and Engagement

Good gamification has a 'hook' - something that initially attracts the target audience's attention, and then sustains it, at least for the short term. Whilst playing, users are drawn closer to the firm, associating their enjoyment with the firm's products or services. Ethics are seemingly irrelevant.

Games design models commonly inform this engagement process. These describe the formation of attractive video games. The 'MDA' model (Hunicke et al. 2004) is a prominent example (see also Aleven et al. 2010; LeBlanc 2006). It comprises formal rules (a game's mechanics) that dictate physical structures, further rules on player interaction (a game's dynamics, or 'run-time behavior'), and predictions on how players might experience the game - feelings of frustration, elation, for example - during run-time (its aesthetics). The three parts interact, and the designer develops each part iteratively with the aim of sustaining the player's attention. These templates, and their extrapolation to gamified designs, are largely without ethical issues, at first glance.

Various disciplines note how play and games are embedded deep within the psyche of 'living beings'. A range of species play, and anthropologists see it as 'older than culture itself' (Huizinga 1944, p. 1; see also Caillois 2001; Sutton-Smith 2001). Psychologists comment on our natural inclination to play and its contribution to human development (Millar 1968; Nicolopoulou 1993). It is this psycho-social attraction that gamification designers seek to leverage. Play and games, as part of a designed experience, have the potential to stimulate emotions such as joy, surprise, pride, and so on, which in turn perpetuates engagement. Again, ethics seem irrelevant.

Still, engagement per se does sometimes initiate debate. Advertising is an example (e.g. Biegler et al. 2015; Emamalizadeh 1985). The persuasive techniques used in television commercials, such as emotional music (Strobin et al. 2015), an interesting storyline (Micu & Plummer 2010), and nostalgia (Merchant et al. 2013), all aim to subtly engage the audience to the firm's brand, without its members really being aware (Gevens et al. 2014). The ethics of persuasion here depend on the perspective taken. One argument is that the audience implicitly understands the purpose of advertising is - in this context - to sell products. There is an implied transparency, regardless of the extent to which the audience ‘connects’ emotionally with the firm and/or the advertised product, rendering ethical concerns void. The parallel argument with gamification is that users know they are being entertained for the purpose of persuading them to buy.

An alternative perspective focuses on how the firm persuades the audience. This argument emphasizes that some persuasive techniques are more covert than employing emotional music, for instance. It is these more stealthy means that are more ethically contentious. An example is subliminal messaging, where hidden ‘messages’ are cognitively processed below the threshold capabilities of conscious perception. This is not a new idea; its effects have been documented very early on (e.g. Peirce & Jastrow 1884; Sidis 1898). With some contextual caveats, some evidence shows how consumer choices, and subsequent behavior, can be manipulated at a subconscious level (e.g. Watanabe et al. 2001; Smarandescu & Shimp 2015). Importantly though, it is the firm’s use of the technique, rather than its effectiveness, that signifies deception, and which stimulates debate (e.g. Gratz 1984; Kelly 1979). These concerns are demonstrated most radically by some countries prohibiting subliminal messaging by regulatory control - e.g. the UK (CAP 2016) and Australia (BSA 2017).

The same principle of stealthy persuasion is seen in gamification. Whilst users might be aware of the connection between the offered experience and the intended outcome, they will be less mindful of the powerful techniques employed to leverage persuasion at a deeply subconscious level.

A deontological position would find it difficult to justify deception, but consequentialists might be more forgiving if the gains for the majority are comparatively high. They might further emphasize the entertainment value for users as an additional gain. They draw comparisons to experiential marketing (e.g. Schmitt 1999), where a brand ‘experience’ creates value for the firm by drawing its targeted - and entertained - audience closer (Lee et al. 2010; Wu & Tseng 2015; Yuan & Wu, 2008). Whilst there has been some move towards light regulation, experiential marketing remains largely free of ethical concern, implying that the entertainment feature of gamification is, at worst, harmless.

Concerns diminish further when we conceptually separate gamification’s output and outcome, and if engagement is analyzed on observable behavior and from the user's perspective only. Then, users are attracted to the experience and they have fun, regardless of whether they buy the product or not. For the user, enjoyment is not a means to an end, but rather an end itself - similar to the engagement found in gaming. Ethics of engagement are void, regardless of the ethical perspective taken. But 'hooks' are not equally powerful in grabbing and sustaining attention. First-person shooting game, 'Daikatana', failed to captivate the market (McAllister 2004), whilst Candy Crush Saga (Chen & Leung 2016) has been much more successful. In marketing, UK retailer John Lewis Partnership has consistently won recognition for their powerful advertising (Vizard 2015), with other retailers failing to appeal.

Engagement exists on a spectrum, and firms are economically motivated to design the most engaging systems, presuming higher engagement equates to better outcomes. This potentially includes hyper-engagement[1], which has parallels with internet gaming disorder.

The wider concept of 'digital addiction', which scopes the basis of addiction beyond gaming per se to include social media, software usage, and online activity in general (e.g. Ali et al. 2015; Alrobai et al. 2014; Cover 2004) is clinically unsubstantiated. Internet gaming disorder is clinically more accepted, but still contentious. Its current state as a formal psychiatric disorder has pending status in the current edition of the mainstream professional Diagnostic Statistical Manual (DSM-V 2015), but it is also acknowledged as pathologically 'real', and distinguishable from mere 'high engagement' (Petry and O'Brian 2013)[2]. Empirics offer support (e.g. Chen & Leung 2016; Seok & DaCosta 2014; Wan & Chiou 2006). There are also clear parallels between findings that describe how problem gaming arises and engagement within gamification. Early research describes how 'flow' - the 'emotional state embracing perceptual distortion and enjoyment' - strongly contributes to addiction, as does the suspension of perceptual norms of the 'real world' (Chou & Ting 2003, p. 663). Flores and Siomos (2012) concur, and more recently Lee et al. (2015, p. 413) identity 'highly challenging, interactive, and immersive' characteristics (see also, Chen et al., 2010; Donati et al. 2015; Lemmens and Hendriks 2016).

Despite a wealth of research into corporate decision making within a marketing capacity (e.g. Cavusgil 2007; Lund 2000), it is unclear how this might relate to the gaming industry and gamification. Currently, there is no evidence that suggests designers purposefully create addictive games, or that firms set out to create addictive gamified experiences. But whether hyper-engagement is intentionally or unintentionally present, its possibility raises the issue of ‘harm’.

Using principles such as the ‘golden rule’ and the ‘disclosure rule’ (Aristotle [see Broadie 1991]), virtue ethics might propose that each person involved in the design process must take ownership on deciding an acceptable extent of user engagement. They might reflect on how they would feel if they were a user engaged on a variety of levels, including the extremes, and whether they would be willing to describe their personal role in the design process to others, without feeling guilt or embarrassment.

From a deontological perspective, the possibility of hyper-engagement is particularly problematic, and the prospect of entertainment cannot offset the risk. Even the slightest potential for a comparatively tiny number of users, cannot be morally justified, regardless of the firm’s intent. Conversely, intentionally designing for hyper-engagement might not only be justified for consequentialists, but may represent the most ethical course of action. If the firm can predict that only a minority of users would be adversely affected, this is offset by intense enjoyment for the majority.

5. Gamification, Ethics, and Behavioral outcomes

Industry frameworks of gamification borrow heavily from more established gaming models because of the latter’s success and focus on creating engagement (Deterding 2015). The few theoretical frameworks on offer follow suit (e.g. Maican et al. 2016; Plangger et al. 2016; Robson 2015). Yet, as indicated before, whereas engagement in games is the behavioral outcome, in gamification, it represents a system output that drives the behavioral outcome. Both outputs and outcomes are crucial, but current frameworks pay very little attention to this latter relationship.

Current research and practice intimate that users will buy the firm’s product almost as a deterministic response if sufficiently engaged. Whilst a natural desire to play helps to engage users, a range of decision making literature suggests cognition plays a more central role in the buying decision (e.g. McQueen et al. 2014; Yang & Urminsky 2015). In particular, the time period before users decide whether to buy or not, potentially offers firms an opportunity to ‘prepare’ the impending choice in a way that exploits the frequent errors humans make in decision making. Marketing to vulnerable users might present a particularly potent focus of persuasion. Some ethics research in wider marketing contexts (e.g. Benet et al. 1993; Palmer & Hedberg 2013) have highlighted issues that might also be relevant to a gamification context.

This could be seen as deceptive, and research illustrates the potential for unethical practice. Environments impact decision making (Baron 2008; Kahneman & Tversky 1984; Simon 1956; Tversky 1969). To make sense of the vast array of rich stimuli, like those found within some gamified experiences, cognitive biases and shortcuts are used to aid sense making and choice (Tversky & Kahneman 1981; Kahneman and Tversky 1974). Their consistency and predictability (Kahneman & Tversky 1979) afford opportunities for manipulation, where firms are able to design features into the user experience, that frame the buying decision in a way that is advantageous to the firm. For example, users will buy if they perceive it to be less risky than not buying: Research shows that we avoid potential loss to a much greater extent than selecting an option with an equivalent amount of potential gain (Kahneman & Tversky 1979). Clearly, firms will emphasize the attractiveness of their products anyway, but it is more effective to simultaneously relay the disadvantages of not buying, as this will intensify the already active bias in users towards risk aversion.

Evidence of other heuristics and biases abound: Salience, anchoring, heuristics of affect and availability, the diversification bias, and so on (Folkes 1988; Freudenburg 1992; Slovic et al. 2007 Taylor & Fiske 1978), all offer opportunities to use gamification to frame the buying decision in a particular way. It is more likely that users will assess the buying option as attractive if they can easily recall a positive example, if the product has been strongly 'visible' in the experience phase, and if users have been able to experience the qualities of the product. Placing the opportunity to buy closely to the experience phase is likely to make buying seem more desirable, as are rewards that are valued by users, but which are strongly associated with the product.

Purposefully designing for cognitive error, and implementing features that exploit this, involves mechanisms that are hidden from users. This raises ethical issues about deception, but on quite a different basis than those related to engagement per se. Again, for virtue ethicists this is an individual issue, to be approached as such. Consequentialists would refer to the principle of the 'greatest good for the greatest number' (Bentham 1789/1961) to justify deceptive means, whilst, again, for deontologists there can be no rationale.

Conclusions might differ though if the buying decision is approached in a more detached way. Then users would rank the expected utility of buying, and alternative options, independently from the system's phase of entertainment. They would select the option with the highest utility: The environment, emotional state, and ethics are all irrelevant (Becker 1976). Moreover, there is currently no evidence that firms design gamified systems with specific features to exploit the common mistakes that humans make in processing data. The evidence on the consistency and frequency of cognitive biases and heuristics stems from psychology, rather than being a product of applied gamification research. On this basis, the ethics of the buying decision might be no more innocuous than those in television advertising, for example, irrespective of the ethical position.

To summarize from our discussion thus far, we identify three implicit caveats that affect conclusions on gamification's moral implications. First, some components of a design might be more ethical than others, or at least raise fewer ethical concerns. Judging the ethics of an overall system, without examining individual components lacks efficacy. The two rudimentary phases we use as a basis to discuss ethics in this paper reveal ethical issues manifested in different ways. In practice, gamified systems are likely to be more complicated, suggesting that ethical contrasts are even more nuanced between gamification's structures and processes. This suggests there may be value in considering both the ethics of gamification systems in their totality as well the ethical implications of individual system components. Second, different stakeholders - users, designers, and others - 'experience' gamification in different ways. In this paper, we particularly focused on users. In practice, the number of, and dynamics between, different stakeholders are likely to be greater and more complex. Thus, examinations of the ethics of gamified systems, and the potential need for regulation, may be enhanced by reflecting on the perspectives of different stakeholders. Third, the principles of each school of ethics lead to rather different conclusions as to gamification's moral worth. Using a multifaceted lens enables a deeper assessment whilst simultaneously encouraging reflections on a wider set of perspectives. In this paper, we referred to three schools, but emphasize that others, particularly more Eastern approaches, could enrich deliberations further. Thus, there is merit in considering the ethics of gamification from a range of ethical perspectives. We conclude that there are at least some grounds to propose further debate on the ethics of gamification, including whether there might be a need to monitor its use. We now draw on our discussion to illustrate how both regulatory and less formal approaches could contribute.

6. Implications for monitoring

Currently, gamification is not formally regulated as a marketing practice. Options include developing existing regulations to incorporate gamification, and creating specific new directives. We use the term 'regulations' in its broadest sense, to include legally enforceable tenets as well as codes of best practice. Overseeing gamification in this way assumes that ethical conduct can and should equate to objective 'rules', as seen in consequentialist and deontological approaches.

More generally, advertising regulations are well developed and common, with most countries restricting what firms can and cannot do. As before, the stealthy and covert techniques of some advertising also characterize some of the less discussed, but fundamental, principles of gamification. Subconscious persuasion has similarities to subliminal advertising, for example, already noted as a prohibited practice in the UK (CAP 2016) and Australia (BSA 2017). Gamification is not advertising, however, but a marketing tool which brings in a wider range of potential regulators and other actors. For this reason, wider regulations and bodies concerned with general marketing may be able to oversee ethical issues more effectively than those associated purely with specific types of advertising. The British legal framework for marketing, for example, outlines good practice based on a number of general principles (Gov.com 2016). By default, these may already address some of the ethical issues raised. It is implied that firms should not pursue hyper-engagement, for instance, and they are reminded of the need for transparency to meet the tenets of "honesty", "truthfulness" and "social responsibility" (Gov.com 2016). The American Marketing Association (AMA) similarly also refer to "transparency", "honesty", and "responsibility" as part of its proposed ethical values. In the latter, for example, they stipulate a need to "avoid coercion with all stakeholders" (2016). The implications for gamification seem to be clear.

Most regulations strive for a balance between unambiguous principles and allowing for organizational freedom. Yet, grey areas are the frequent consequence, giving firms opportunities to exploit guidelines through subjective interpretation. Does "coercion" (AMA 2016) extend to the subtle yet powerful forms of subconscious persuasion as seen in gamification, for example? And when a firm hides the intended outcome of a system from users, does this equal dishonesty?

The aim of high level regulatory bodies though is often to give an overview of general principles that implicitly span a multitude of marketing methods, whilst avoiding their specific mention. The AMA, for example, explicitly recognizes "that every industry sector and marketing sub-discipline...has its own specific ethical issues that require policies and commentary...we encourage all such groups to develop and/or refine their industry and discipline-specific codes of ethics..." (2016). Whilst theoretically both specific and broad based regulations could be developed to include gamification more comprehensively, the AMA's stipulation of each sector to take ultimate responsibility hints at an alternative means of monitoring.

As research more actively contributes to the sophistication of gamified systems, there is a likelihood of industry using the approach more voraciously, and potentially with increasingly subtle and stealthy persuasive means (Hamari & Parvinen 2016). As it emerges potentially as a mainstream marketing approach, it is likely to become more organized across industry with perhaps a current or new body assuming responsibility. The rise of experiential marketing, and the organization of its monitoring, provides a recent example. A new Code of Conduct was developed by the Institute of Promotional Marketing (IPM) in 2012, in response to concerns that the then current array of regulations did not adequately address potential ethics in this relatively new approach to marketing. These are now widely accepted by firms and marketing organizations that embrace experiential marketing, including Coca-Cola (Clarke 2012). As, the IPM noted, "...Experiential marketing, as a discipline, must be seen to be professional and ethical. Consumers increasingly concerned about the marketing that surrounds them in public spaces, which they don't always expect and which they may feel they can't control. The marketing industry as a whole must be seen to be taking those concerns seriously..." (Steers 2012). Owing to the similarities between experiential marketing and gamification on the principle of 'created experience', these guidelines could be a benchmark for a code of good practice for the latter. Further, the IPM's role could provide an example of how the ownership of guidelines and their development might emerge.

The monitoring of gamification with formal regulations presupposes that objective 'rules' are the best way forward. Virtue ethicists however, would place greater emphasis on the autonomy of individual stakeholders, including the organization itself and employees, to make ethical decisions. Therefore, an alternative way forward may be to encourage individual firms to oversee gamification subjectively. Some guiding questions might encourage systematic self-evaluation for each time and circumstance the firm considers using the method. The advantage of this approach is in acknowledging the difficulty of developing regulations that give clear parameters, whilst simultaneously allowing organizational flexibility. Self-monitoring might be a more sensitive means of evaluation: The individual nuances of a vast array of styles and types of systems can be addressed more adequately, and a wider range of stakeholder perspectives can be better considered. With this in mind, and to reflect our analysis thus far, Table 2 proposes possible questions that firms could use - and modify as necessary - to initiate a process of ethical reflection as part of the development and implementation of gamification.

7. Conclusion

Gamification is still in its infancy, despite having been used in marketing for a number of years. 'Growing pains' are evident (Hamari & Parvinen 2016, p. 1307): Empirically tested models are scant, with some lacking focus and rigor; industry led frameworks over-rely on gaming to inform their design and ethical reflection, which is especially misleading at the detailed level (Deterding 2015).

As research developments advance and become more integrated into practice, more effective gamification will emerge and ethical issues will intensify. This is because 'good' gamification relies on mechanisms that frame the buying choice in a way that manipulates users into buying. Although not a new idea in marketing, because of the extent to which engagement becomes possible, gamification presents greater ethical concerns relating to harm and deception. Specificities differ according to which ethics approach is taken. Yet, there does seem to be a strong rationale for ethical concern on some dimension.

As firms become more educated about the deep psychological mechanisms that underpin user engagement, they will have the opportunity of designing increasingly persuasive systems. Experiences could entice users in more sophisticated ways, and become more subtle, yet more powerful in compelling users to buy: Design features have the potential to exploit users' cognitions subconsciously and covertly, much more effectively and stealthily than in current practice. Psychology based research clearly indicates this potential, and, crucially, firms have the economic motivation to pursue, embrace, and exploit such developments. Concerns have already been raised by researchers working in areas that are relevant to gamification: Online auction sites and 'stealth marketing' have been discussed from an ethical vantage point (Drake 2015; Pehlivan et al., 2015), as has the increasingly sophisticated development of technology and its implications of ethics (Iredale & Heinze, 2016).

The current silence of marketeers possibly implies their acceptance of existing arrangements, i.e. general marketing codes, to oversee gamification's practice. However, citing the ethical concerns discussed, the potential for these to escalate as the practice develops, and the precedent of tighter regulatory control for similar marketing methods (e.g. experiential marketing), we suggest the need for more dialogue. Our paper is intended to initiate discussions on first, whether gamification should be regulated or monitored in some way, and second, if so, how this could be developed. We hope that the relevant stakeholders will be motivated to reflect and contribute accordingly.

Notes

1 We use this term to avoid the disciplinary debates concerning the diagnostic criteria of addiction in its clinical form.

2 As the industry standard reference point for mental health, the current version of the Diagnostic and Statistical Manual of Disorders (DSM-V) positions internet gaming addiction as having 'proposed status' as a formal psychiatric condition, following the manual's review of over 250 papers. Formal inclusion into the main body of the manual is pending further research that specifically overcomes the problem of the diversity in how studies have defined and measured gaming addiction to date (Petry & O'Brian 2013).

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Table 1: Principles of Consequentialism, Deontology, and Virtue Ethics (Thorpe, 2014)

	Consequentialism	Deontology	Virtue Ethics
Sub-schools	**Utilitarianism**	**Kantianism**	**Aristotle**
Examples of key concept	**The greatest good for the greatest number (Bentham)**	**Categorical imperative (Kant)**	**The Disclosure Rule The Golden Rule**
Orientation of analysis	Exogenous to the person or people: The consequences of the act	Exogenous to the person or people: The means to the outcome	Endogenous to the person or people: Engrained values
Approach to what is good	**Underpinning principle**: To achieve maximum happiness	The 'right' action is also what is good	The consequences of the actions of virtuous people
Approach to what is right	The 'right' actions are those which will achieve maximum happiness	**Underpinning principle**: To engage in ethical action, i.e. to engage moral duties	The actions of virtuous people
Approach to what is virtuous	A combination of virtues that enable maximum happiness to be sought	Traits that encourage the carrying out of ethical action	**Underpinning principle**: Internalized value systems

Table 2: Potential Questions for Organizational Self-Analysis

Considered Question	Ethical Dimension
To the best of our ability, are we educated on how gamification works?	This question is asking firms to keep up to date with research findings on how gamification works. Shifts in understanding, and more detail, are likely to propose different ethical dilemmas.
Are there ethical implications of using gamification for our specific product we want to market?	Firms are asked to consider user engagement, especially hyper-engagement, in the context of the product they want to market, or type of firm they are. This might impact the decision of whether the use of gamification as a highly persuasive tool is ethical. Some types of financial loan companies/products, for example, might raise special ethical questions.
Are there best practice examples in our industry?	Where they exist, firms are asked to analyze examples 'honestly'. Where possible, they are encouraged to share good practice on procedures that minimize ethical risk.
Are we aware of the potential risks to each stakeholder?	Stakeholders may include (not exclusively): General employees; employees involved in system construction (designers, etc); key decision makers (project leaders, CEO, etc); shareholders; channel partners; host communities; users, etc.
Are there any ethical implications of not using gamification?	This questions asks firms to consider how stakeholders might be disadvantaged if gamification is not used. E.g. Loss of opportunity to reposition the firm in its competitive market, loss of economic gain, etc.
How do the ethical risks of gamification compare to other appropriate methods of marketing?	The firm is asked whether other less ethically problematic methods could potentially reap the same rewards.
Will every stakeholder be informed of the potential risks of the system - to themselves and others?	This question is about adequate communication, and, to some extent, giving ownership of a designed system to its stakeholders. The firm is asked how potential risks can be best communicated in a way that is fair and clear.
Can every stakeholder withdraw, without personal/ professional risk or detriment?	This question is asking firms to identify formal and informal consequences for stakeholders, if they refuse to take part in a system's construction, implementation, and/or use. Can the firm assure stakeholders of their choice to withdraw without consequence? Where this is not possible, can firms minimize the risk?
Will we clearly communicate to users, the intended outcome of the experience that we create?	Firms are encouraged to devise a clear communications plan and to consider whether users should be 'reminded' at various points in the experience of the intended outcome.
What are the consequences of unintended outputs, especially around user engagement?	Firms are asked how they could manage these, who is responsible for their management, and to reflect on the firm's approach to culpability.
What might the impact be on unintended users, especially those which are vulnerable?	Some audiences may engage with the system who are not part of the original target. The firm is asked to reflect on whether vulnerable audiences in particular might be adversely impacted by the system, and how this impact could be managed.
Are there any other unwanted system outputs/outcomes that could potentially occur?	The firm is asked to identify and assess unintended outputs and outcomes of the system, and where there is potential for harm, how their impact could be managed.
Can we build in a review of ethics after each stage of development and implementation?	This is meant to initiate continuous self-reflection. The firm is also asked to consider the benefits of an ethics debrief for all stakeholders after the process has been completed.

Figure 1: Basic Phases of Gamification