LUDIFIED CULTURE

gamification

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Abstract

Gamification is a recently emerged concept and practice, rising to high popularity as of mid to late 2010. This thesis analyzes this concept in regards to how and why it became the concept and practice we know it as today and the implications this imposes on the current day society.

Gamification entails the use of elements of games to alter and add to our daily landscape of activities by engaging us in non-game contexts. But it is not an inherently new practice. The practice of making experiences more engaging by using game elements is something we are very familiar with already. However, gamification is a development, an evolution, of this practice. This change occurred due to various developments.

These developments signify a mode of participation, which through technological advancements and the presence of social networks afford the practice and concept of gamification to be shaped. Furthermore the casual revolution (Juul 2010) indicates a growing awareness and appropriation of a set of conventions related to games. This allows us to engage with and navigate through gamified processes without being barred by a lack of skill or knowledge about the meaning of the game elements which are integral to these activities.

These developments imply a further development of our playful identities (Raessens 2005; 2006) as homo ludens (Huizinga 1955) and the appropriation of gaming capital (Consalvo 2007) which serves in lieu of acknowledging a ludification of our current culture (Raessens 2006).

Keywords
Gamification, ludification, culture of participation, casual revolution, affordances

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Foreword

It was September 2011 when I joined Flight 1337, a young start-up taking on the challenge of becoming leaders on engagement design and gamification. It is now nearly a year later and Flight 1337 is still standing strong, proving itself and its ideals over and over.

This shows the potential of applying the concepts of engagement design and gamification in practice. Around the world companies are rising to great success in selling their expertise. And not just companies, but also the everyday Joe is exploring the boundaries and possibilities of gamification and related practices by giving rise to many blogs and by participating in a wide variety of discussions. A day doesn't go by without numerous online mentions of gamification.

During my time at Flight 1337 I started to wonder on what actually triggered gamification riding the high waves of such a strong public presence. I began to search for reasons and, after taking a while considering my thoughts, this search resulted in what is in front of you at this moment.

With this thesis I will wrap up my years as a student, earning myself a Masters degree, but I will never stop learning as I continue to explore the limitless possibilities of engagement design and the ways it can enhance virtually every experience to a great extent throughout the next years.

I would like to thank my supervisor Imar de Vries, my great colleagues at Flight 1337 and my friends and family for the support.

Introduction

Play is an important component of our daily lives. It has a variety of functions from simply entertaining yourself and others to teaching and learning about matters of every sort. Play has had meaning to us in one way or another for as long as we can remember. As such, philosopher Johan Huizinga would even refer to us as 'homo ludens', or 'playful men' (1955), signifying the importance of play in our lives.

Today, play is different from what it was 50 years ago. For instance, today we carry around mobile devices which are readily available at a whims notice. We whip out our iPhones and playfully interact with friends, family and strangers through applications such as Foursquare and social networks like Facebook and Twitter. In the current society it only takes a single glance to see that these devices are pervading many aspects of our daily life. While waiting for the train to arrive at the station we check our email. During a coffee break we like a friend's post on Facebook. The means of play and how we play have changed. For instance, these devices have allowed for digital mediated play to reach a pervasive and ubiquitous quality. This quality of play has led to some calling our culture a 'ludified culture'. Joost Raessens, game researcher and theorist, observed that this ludification is a sign of a changing cultural-economic environment (2006). This changing environment allows for play to reach a strong presence and consequently illustrates how play has reached this presence. A recently emerged concept which signifies this presence of play and a ludified culture is 'gamification'.

Gamification entails the use of game elements to alter and add to our daily landscape of activities by engaging us in non-game contexts. These game elements can be anything from game mechanics such as leaderboards, levels and badges to game design elements as storytelling, reward programs or creating non-intrusive user experiences. Gamification takes the lessons learned of years of game design and applies them to non-game contexts, such as informing people about the importance of pensions or donating for a good cause. The main principle of gamification can then be recognized as making experiences (more) engaging by using elements and design we can find in games.

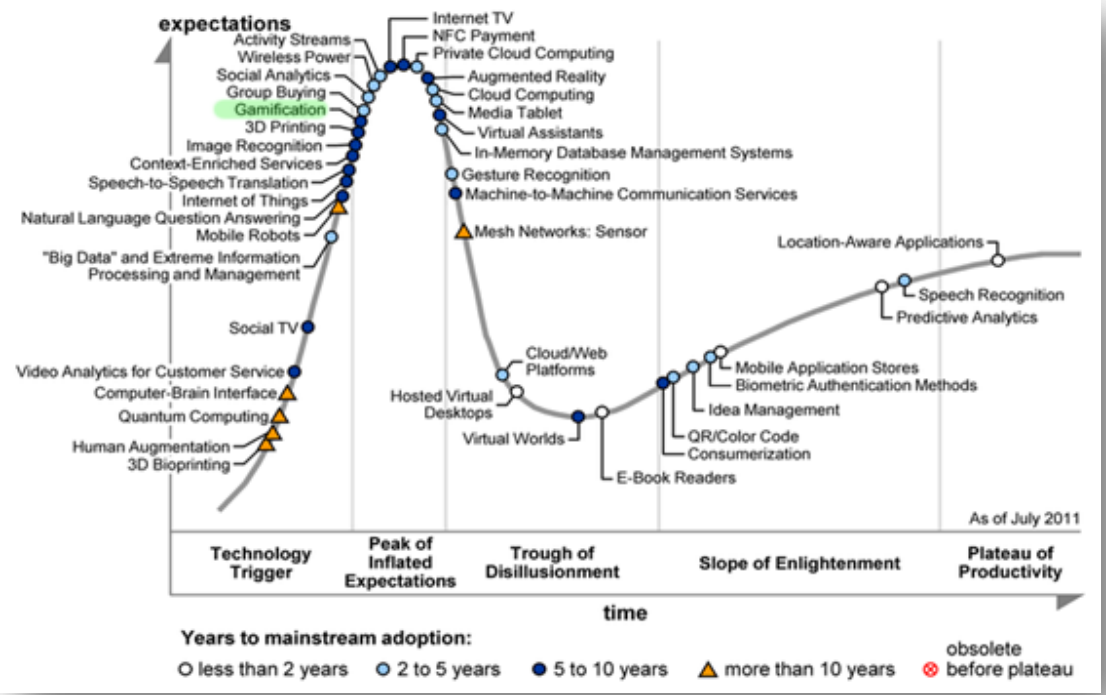

Figure 1. The Gartner Hype Cycle. Gamification is shown on the upward wave of inflated expectations (Gartner Newsroom 2011).

Gamification has only recently appeared, gaining tremendous popularity in the second half of 2010 and earning a spot on the Gartner's Hype Cycle a year later (Gartner Newsroom 2011). However, even though gamification could be recognized as a hype, going upwards towards the peak of inflated expectations (as can be seen in the image above), it is hardly a new practice. If you take the main principle of gamification, as it was defined previously, we can already see examples of it long before recent years. Airmiles, for example, illustrate how a reward program can be used to make flying with certain airlines more engaging while promoting loyalty. The practice of gamification can also be applied to non-business oriented purposes such as skipping the lines between the tiles on the road while on the way to school to make the walk less tedious and more engaging. But why then did the concept appear and rise to such popularity in 2010 up to today while the actual practice of it has been around for many, many years? This thesis will focus on answering this question and what it means for our ludified culture through two lenses: discourse and cultural-economic change.

The first lens is focused on the vibrant discourse surrounding gamification as a concept and practice. Gamification is being appropriated by a variety of parties, or actors, with each having their own perspective on what it is or what it should be. For instance, sometimes it is heralded as a fruitful new concept which can be applied to engage users in new ways, while other times it is approached from a more hesitant, careful perspective, doubting the premises of gamification and questioning its actual intentions. Through these actors the concept is appropriated and positioned in various ways in relation to the specific problem the particular actor perceives. This is not without consequences as these perceptions have an influence on the practical application of gamification and concurrent translations by the users of gamified services and products.

Analyzing this discourse allows us to get an initial sense of what gamification is perceived to be and how and why it is utilized by the present actors as a concept and practice. This serves two purposes: understanding what gamification is and why it became recognized in such a fashion as it did.

But besides analyzing the actors, the 'origin' of gamification can also be traced back to certain cultural-economic changes and developments. These developments are the focus of the second lens. This entails developments seen in technological fields and what these mean for gamification. It also involves taking a closer look at a different vital aspect of gamification: social networks and the role it plays for the participatory culture. It will be argued that these social networks serve as a fertile bedding ground for key aspects of gamification to flourish on. Finally, specific attention shall be given to the aspect of games in relation to gamification. This involves relating gamification to a development called the casual revolution (Juul 2010) which indicates a growing competence of people regarding the playing of games. The recognized cultural-economic changes are of importance as these influenced the establishment of the practice and concept of gamification at it currently is.

These two lenses aim to solve the problem previously posed: why gamification now? Through an analysis of how and why gamification is perceived by various relevant actors as well as delineating the causes from a cultural-economic point of view we will be able to solve this problem. But this thesis will not only serve to explore and analyze the origin of gamification, it will also serve to analyze the profound implications this has on the current culture and what this indicates for the proposed ludic culture.

Discourse of Gamification

Gamfication has already become a focal point for a wide variety of parties. A day does not go by without numerous online postings about gamification on boards, blogs and news websites. Gamification meet-ups like the GSummit in San Francisco or The Gamification Meetup in Amsterdam where the promise of gamification is discussed and explored are emerging rapidly. Gamification has caught the attention on a grand scale by offering something that resonates with our innate playful nature. But not everyone talks in the same manner about gamification. There are different perspectives present. The appropriation and application of gamification is not singular. It is, for example, sometimes seen and used as a purposeful marketing tool, a product to sell, a promise of a different, possibly better tomorrow or as a concept worthy of research and analysis, exploring certain boundaries or implications.

These different perspectives are not just solitary perspectives, but can rather be seen as part of what French philosopher Michel Foucault calls "discursive formations" (1972). A discursive formation is the indication of a certain regularity of discourse, or a pattern of a “certain way of speaking” (Foucault 1972, 193). This is for example, as Foucault illustrates in his research, applicable to political economy, medicine or law. Formations make up the different perspectives on the concept and practice of gamification. The actors which enable the different formations apply different interpretations and meanings of language and words, which in this case concern 'gamification' and related concepts as 'engagement design', 'gameful games', 'pointsification' and so on (which will be detailed later on).

This section explores the discussion of gamification between these different formations with a discourse analysis. Certain actors which represent the perspectives of different discursive formations are analyzed so that at the end of this section we will have gathered the required knowledge to understand what gamification currently is perceived as and who is applying it. This then further aids in understanding the question of why gamification has appeared now. We can use this knowledge to comfortably navigate the remainder of the discussion of the origin of gamification as we then will have a shared understanding of what gamification is.

These actors are not chosen hitherto, but are rather chosen on the basis of presence in the public debate and power in channeling and formulating discursive meaning in the current, and possibly coming, discourse surrounding gamification. In Foucault's terminology these actors enact and embody 'power/knowledge' in the constant flux and negotiation that pervades our society (1998) and specifically the concept which is the focus in this analysis. While a marketing focused actor might perceive gamification as a tool to use in order to sell a product by relating it to an ongoing trend, an academic with a critical perspective might very well approach the concept from a different angle by being more invested in, for instance, the cultural implications of such a

concept. On the other hand a company could create a software package to apply to web based applications with the use of certain game elements. This indicates how different formations enact a different appropriation of the concept, which is analyzed in this section.

The choice of actors is based on my own experience within the field of gamification. This means that, for the sake of transparency and responsibility, it is important to note that this is a subjective choice. But by appealing to my personal experience the influence of this subjectivity will be minimized as much as is possible. It also does not pertain to be an all-inclusive overview, as the scope of this thesis does not allow such an extensive analysis. It should be regarded as a representation.

But before going into the specific actors we first take a general look at the more general atmosphere of gamification to get a taste of what the most common themes are when gamification is discussed. One way to do so is with a wordcloud.

Figure 2. This image is a word cloud based on definitions of gamification. Created with Wordle (www.wordle.net). Common English words as well as 'gamification' are omitted from the cloud.

The word cloud as you see above is based on over 40 different sources which define gamification (see appendix A for a complete overview), ranging from companies, and notable persons to the average online blog.

This word cloud paints a picture of the discussion of gamification up to now. It is an interesting overview to spend a few moments on. Most notably straight away is the strong reference to 'game' within this discussion. This illustrates how the practice of gamification is a practice which weighs heavily on lessons learned from game design, relating to game-inspired thinking and techniques. But interestingly, gamification is also connected to 'non-game'. While gamification infers a lot from games, gamification does not equal games. This is important to realize as this indicates the process of applying gamification does not result in a game. The end-result or goal of gamification is that the behavior of people is altered through the use of game elements in such a way that activities are made more engaging.

The elements used from games are commonly referred to as mechanics, as can be seen in the wordcloud above. Examples of these mechanics are levels or badges, which can generally both be inferred as systems of rewards. Other elements which are often referred to are leaderboards and achievements. However, it should be noted that these elements can be understood as surface applications of gamification, compared to an in-depth application.

Gamification is often applied by a business, corporation or any other initiative to solve a certain problem. This problem informs the goal of, for example, promoting user retention, activation, participation, or more generally to influence certain behavior. The previously mentioned game elements of levels, badges, leaderboards or achievements are elements which are relatively easy to apply to solve such a problem and are also provided as 'plug-and-play' solutions by companies such as Badgeville or Bunchball (which are further detailed later on), which focuses on a change of behavior on a more surface level. As such, this can be recognized as a surface application of gamification. On the other hand, gamification can also be applied to entirely revisit a process and rebuilt it by implementing certain game design principles, such as storytelling, flow or progression systems into the core design instead of layering game elements on top. This represents two different methods to apply gamification; as a surface application or in-depth revisit. Although this is not necessarily represented within the wordcloud, it is an observation that signifies a dichotomy in applied gamification, which is of importance further on in the argumentation.

However, regardless of the specific manner how gamification is applied, the wordcloud above illustrates that gamification aims to offer the user an engaging experience by using game elements and what specific practices this involves. Knowing this, we can now take a closer look at the different perspectives which are present within the discourse of gamification to get a more specific perspective on how gamification is appropriated.

Different Discursive Formations

With the wordcloud above we were able to illustrate what language in general is used to discuss gamification. A number of keywords have floated to the surface, such as (non-)games, design, mechanics and engage(ment)

and a side-note was made of the difference between surface and in-depth applied gamification. This describes gamification in its most base form. However, following the purpose of delineating the different formations, it is most valuable to our cause of understanding the why and how of gamification to further dissect this base overview and look at how the different formations place themselves within the discourse of gamification and how they appropriate gamification. As was mentioned previously, this creates an understanding of who are applying gamification, to what reasons, what this implies for the concept and it will give us the required vocabulary for the remainder of this thesis. We will look at a number of people conform to the reasons previously described who each appropriate gamification differently as well as a number of companies who made it their business to apply gamification. Up first is gamification practitioner Gabe Zichermann.

Gabe Zichermann

Gabe Zichermann, author, entrepreneur, marketer and notable 'spokesperson' of gamification, firmly states that gamification is the future and that no industry will be left untouched by its influence (Gamification Speech at R/GA 2010). He promotes gamification as a problem solving practice applicable to both the enterprise and the consumer (SocialMediaWeek 2012). Gamification could, for example, be used to motivate employees to work out more often in order to create a more healthy work environment.

As an example of enterprise gamification Zichermann talked in an interview with the Guardian in March 2012 (SocialMediaWeek 2012) about a company of which the CEO wanted to make his employees work out more often. The solution to reach that goal that was used was not by just building a gym in the office building, but also by adding a layer of game elements to entice employees to start exercising. By offering rewards for regular physical activity as well as introducing a cooperative aspect by creating teams and a competitive aspect by adding a leaderboard and a point system, the CEO of this company was able to motivate 80% of his base employees to do regular physical exercise, which is, as Zichermann argues, no less than amazing. Employees were motivated to increase their scores and beat their coworkers on the leaderboards. If a certain member on a team noticed that he was performing less than adequate in the gym, he would find a drive in not letting his team down by exercising more often. This is an example of enterprise gamification which uses the familiar game mechanics of leaderboards and points and the general game design principles of competitiveness and cooperation.

Another example to accentuate consumer centered gamification which is often lauded as successful by Zichermann is Nike+, a project by Nike. Nike+ focuses on a consumer centered approach by providing technology and communication media in order to track certain statistics online which measure activity. Nike+ does this through a device designed like a bracelet called the FuelBand, using 'Fuel' as a quantified goal to work towards to: "the more you move, the more you earn" (Nike 2012). Zichermann labels this approach by Nike as "making fitness fun" (2011, 96).

These are just two examples of gamification which Zichermann uses to portray his perspective, but it illustrates how he perceives these practices as a leading force of change in which play is becoming a prime method of interaction:

> “What we once called 'play' at the periphery of our lives is quickly becoming the way we interact. Games are the future of work, fun is the new ‘responsible’, and the movement that is leading the way is gamification.” (Zichermann 2011, xiii).

He channels this perception through with his public presence in order to facilitate himself a discursive formation which perceives gamification in accordance to with his own perception. As such, he is able to partly shape discourse and be a representative of a discursive formation on gamification. As he is such a strong advocate of the opportunities gamification allows he is able to partly aid in creating the recognition of gamification as a fruitful problem solving approach.

Although the particulars of the quote above can be considered to be questionable as it quite clearly shows signs of 'prophetism', it is in the context of this research more important to realize that Zichermann gives the essence of this quote such a strong effect in formulating his own perspectives, rather than proving or disproving its validity. He recognizes a changing atmosphere in which play is featured as a leading actor and further pursues it, not only by writing the books such as the one that contains the quote above, but also by setting up initiatives such as the GSummit. Companies such as Badgeville, Bunchball and Flight 1337 also recognize this changing atmosphere and play into it by appealing to the desire to use gamification to reach certain business driven goals.

Badgeville, Bunchball and Flight 1337

A variety of companies has taken up the promise of offering a way of interaction through applied gamification. One of these companies is Badgeville. Focusing on providing a software solution for companies to incorporate a social loyalty program in their web property, Badgeville uses game elements such as badges and leaderboards to increase user activities (Badgeville 2012). This social loyalty program incorporates a number of software appliances which help a business to achieve certain goals, for example improving user retention, activating users and promoting participation. According to Badgeville, gamification is "the science of applying behavior-motivating techniques from social gaming to non-game user experiences" (ibid.). This definition highlights the relation gamification has to social contexts, which can also be inferred by the popular game elements of leaderboards and badges, which are integral to the approach of Badgeville and are inherently reliant on social contexts to have meaning (which will be further explored later on). These game elements were previously recognized as a surface layer application of gamification.

As one of the first major clients of Badgeville for their social loyalty platform Social Fabric (Badgeville 2011), Samsung announced in late October 2011 that they would integrate this platform in Samsung Nation (Samsung 2011). This resulted in an online application and campaign - "Samsung Nation: Join the Fun" - where (potential) customers of Samsung could unlock badges and earn points by, for example, registering or reviewing a product. Users could get themselves positioned on leaderboards and have a chance to receive rewards in the form of Samsung hardware. Taking a similar approach on providing a platform which companies can implement in an online context, Bunchball, self-proclaimed “leader in gamification” (Bunchball 2012), created the Nitro platform. According to Rajat Paharia, CEO of Bunchball, “gamification is all about providing sustained user engagement” (Mashable 2012).

The company Flight 1337, where I am employed at at the time of writing, uses the concept of ‘engagement’ more extensively. This young Dutch/American company, founded in the second half of 2011 is attracted to the promises and potential of providing engaging experiences, by for instance using gamification as a tool in their toolbox dubbed ‘engagement design’. Melinda Jacobs, CEO of Flight 1337, states that by “drawing from insights into game design we offer a more structured user experience” (Flight 1337 2012). In an approach informed by lessons learned in game design and with a crew experienced in game design Flight 1337 uses gamification and other tools in order to solve problems which are found in a wide variety of contexts, such as pensions or charity. Flight 1337 applies gamification differently compared to Badgeville or Bunchball. Instead of offering a layer of game elements, Flight 1337’s method is more like the previously mentioned in-depth revisit and development of structures through their expertise in game design.

These, and many other companies such as Bigdoor or Artifical Industry, see the market evolve into a demand for gamification which they appeal to by providing their expertise. Companies such as Deloitte are creating a demand for solutions designed through gamification for matters such as training, sales management or career counseling (Deloitte 2012). In this formation of discourse, it is recognized that gamification could offer solutions to a wide variety of problems. Companies eagerly react to this and aim to both apply and sell it. From this it can be inferred that pursuing gamification is a viable and lucrative business, earning its spot on the Gartner Hype Cycle and illustrating how it has potential to move beyond the hype and become a lucrative practice. But, it is not all about pursuing market driven goals. Gamification is also often approached from a more conceptual, instead of practical, perspective.

Jane McGonigal, Ian Bogost and Sebastian Deterding

The appeal of using game elements to engage users in non-game contexts is undeniable as companies as Badgeville, Bunchball or Flight 1337 explore the seemingly limitless potentials of this approach. An avid supporter of the principles implied by gamification is game designer Jane McGonigal. Although she does not use the word 'gamification' directly in her book 'Reality is Broken', which is understandable as during the process of writing it the word 'gamification' was still waiting to be picked up and see the popularity it

entertains today, she gives a significant importance to the, as she refers to it, phenomenon of the current importance of computer games in cultures around the world (2011). As the book saw a release in January 2011 it was easily connected to the rising prowess of gamification during late 2010 and onwards. It proved and still proves, to be a valuable resource for perspectives on the cultural importance of games, be it 'full-fledged' games or 'gameful' games (McGonigal 2010). One of these gameful games that McGonigal herself designed is SuperBetter (2012).

A trademark in McGonigal's various speeches and talks, such as in her TED presentation (2010), is the story of how she suffered a serious head injury in 2009, resulting in diminished abilities. In a fashion nearly representative of the American Dream she created her own cure, which was the browser-based and mobile motivational application SuperBetter:

> "(...) in one moment of clarity that I had, I thought - if I could approach my recovery in the same way that I could play games, it would feel like anything was possible. It would feel like I was on a road to getting better, an adventure, where I had friends and family who felt like my allies helping me get better. So, I made up a game that helped me." (Kolodny 2011)

According to McGonigal, 2011 is a major tipping point, enacted by the mass exodus to the virtual world which is signified by a collective of three billion hours of gaming every week across the planet (McGonigal 2011). "Today, I look forward and I see a future in which games once again are explicitly designed to improve quality of life, to prevent suffering, and to create real, widespread happiness" (ibid.). To the realist in ourselves this might sound like rather light-hearted preaching, but it cannot be denied that, although not on such a grand scale, there are signifiers present that might foreshadow such a future as is seen by McGonigal. For example Fold.it, an online multiplayer puzzle game developed by the University of Washington in which the players have to fold proteins, a task which apparently is inherently difficult to do for artificial intelligence and easier to manage for humans (Fold.it 2012). The proposed problem to solve in this game was to unlock the structure of an enzyme which is related to a better understanding of retroviral diseases such as AIDS and finding a cure to such diseases. In just three weeks leading up to September 2011 the collective effort of tens of thousands of gamers folding proteins lead to solving this problem, a problem which scientists have struggled with for a decade (Peckham 2011; Khatib 2011).

Fold.it shows how a digital game can be used to solve problems outside of the digital planes. It illustrated the value and applicability of games and/or elements of games in order to solve problems, as was also seen in Zichermann's perspective on gamification. However, not everybody is as optimistic about the possibilities and promises gamification offers. Game designer, critic and theorist, Ian Bogost argues that gamification is in fact marketing bullshit. With this statement Bogost means that the term itself does not relay the actual intentions of it; it is merely used by marketers to provoke attention. According to Bogost, a more justifiable term would be exploitationware, aiming directly at the 'true' identity of gamification:

> "Exploitationware captures gamifiers' real intentions: a grifter's game, pursued to capitalize on a cultural moment, through services about which they have questionable expertise, to bring about results meant to last only long enough to pad their bank accounts before the next bullshit trend comes along." (Bogost 2011)

Bogost focuses on the rhetorical power of the term gamification. It indicates an easy process of '-ification' which "involves simple, repeatable, proven techniques or devices" (ibid.). Similarly navigating the territories of linguistic politics, there are also proponents of referring to gamification as 'pointification', illustrating an observed dependency of gamified applications on point systems, such as badges or leaderboards. However, this perspective is centered on surface gamification, as was illustrated previously. Although Bogost does briefly hint at the in-depth approach as he states "I realize that using games earnestly would mean changing the very operation of most businesses" (Bogost 2011), it should be noted that he does not further elaborate on the possibilities or implications such an approach could indicate. Nonetheless, this perspective represents a discursive formation which recognizes gamification as a surface solution which primarily relies on easy to implement fixes. This devalues the integrity of games as it indicates a "perversion of games as a mod marketing miracle" (ibid.).

When you watch the presentation of game designer Jesse Schell on the DICE Summit of 2010 (Schell 2010) it is not too difficult to correlate this view of pointification to his perspective of a world in which you would earn points with actions such as brushing your teeth, which then would earn you credit at your health insurance provider. Games are becoming the medium of everyday life, says Schell. Responses to this presentation heavily weigh towards a dystopic world view where everything is quantified. For example, one user referred to Schell's utopic vision where everything would be rewarded as a nightmare in which we conduct "our lives in the way governments and their corporate sponsors would prefer" (ibid.). The ones setting the rules for the games and who distribute the points are the ones in power. Ironically, this specific comment was one of the most up-voted comments in the thread, earning the most points and being interpreted as a valid and relevant opinion which represents the views of others. This in turn could be indicative to the democratic prowess of such a point system. However, it is not that difficult either to imagine a scenario as depicted by said user. Whether for ill or for good, a software package such as offered by Badgeville or Bunchball could be seen implemented in such a fashion that by keeping track of your toothbrush and checking whether you brushed for the full three minutes you earn a badge, while the producer of the toothpaste earns a profit. It could motivate certain behavior, ranging from 'hard control' to 'soft control' (Kelly 2012; Rula 2012).

On the other hand, refraining from prescribing a normative value to gamification and related concepts, a perspective as displayed by user experience designer and researcher Sebastian Deterding takes on the challenge to research the concept of gamification. He, for example, explores and defines theoretical models in

order to explain the motivational pull of game elements by relying on academic principles such as accountability and responsibility (Deterding 2011; Deterding et al 2011a; Deterding et al 2011b).

A notable conflict between discursive formations which illustrates the value and importance of accountability and responsibility for an academic and research focused perspective, is seen when Deterding clashes with Zichermann in September 2011 concerning the contents of the book 'Gamfication by Design' (Zichermann 2011). According to Deterding this book lacks both accountability and responsibility. Deterding illustrates this by arguing for the lack of actual research performed in Zichermann's work, which disproves various conclusions Zichermann makes. For example, Zichermann uses the acronym SAPS to indicate a systematic order of rewards to increase motivation: status, access, power and stuff. However, Deterding points out that this system of rewards, Zichermann's "personal pet theory", is "up for grabs", that "there is no research behind it" and that "it's woefully incomplete when it comes to the reasons why people do things" (Deterding, 2011c). These two formations, signified by Deterding and Zichermann, argue back and forth to bring their points across in an effort which seems reminiscent of trying to mix water and oil. These two formations are intertwined in a struggle to represent gamification from a certain perspective.

Throughout this first section we have seen how gamification is appropriated with the use of a word cloud and by a variety of formations, as defined by Foucault. Certain actors, such as Gabe Zichermann, Badgeville or Sebastian Deterding, have been highlighted in order to give an illustration of the applied meanings of gamification within the respective discursive formations. A picture was painted which shows when these actors became invested in gamification and in what ways they were and still are invested. By doing this we have come to an initial understanding of what gamification actually entails and, from a perspective informed by a discourse analysis, how it is being appropriated and by who. However, as mentioned previously, this lens of discourse is not satisfactory alone in order to provide an answer to the question of why gamification came to be as it is today. For that we have to consider our lens of cultural-economic change which is the subject for the following sections.

Cultural-Economic Changes

There are three changes in the cultural-economic atmosphere which aid in explaining the emergence of gamification as a practice and concept. Firstly, emerging technologies have an influence on how applied gamification is able to use certain technologies to express its functionalities. But, as will be argued, this influence should not be regarded as a deterministic force. Technology is not solely responsible for gamification, but is rather a force that creates affordances for certain developments and practices to occur. Besides understanding the effect of technology, it is also important to understand how technology in of itself has developed and how this relates to gamification. This is illustrated with the aid of the concept of 'hybrid space' and the mobile application Foursquare.

Secondly, the relevance of social networks and the participatory culture to gamification is explored and discussed. It will be argued that core elements of gamification are reliant on the presence of social networks for them to be expressionable and that the participatory culture actually creates a demand for gamified applications. Furthermore, the role that gamification plays within the participatory culture is explored to create an understanding of the implications the relation the participatory culture has with gamification.

Finally, the casual revolution is discussed. Here it is illustrated how we are learning certain skills through changing conventions due to an increasing presence of gaming capital. These changing conventions are induced by the casual revolution which relates to multitudes of games reaching a wider audience, resulting in a higher exposure to games and gamification to install itself as a presence.

Emerging Technology

It should be no surprise to anyone that technology is developing at a staggering rate; we see it happening right in front of us after all. These developments are having a lasting and changing effect on our daily activities and rituals as they become second nature through our regular usage and exposure. Accounts describing this development and the increasing ubiquity and pervasiveness of technology are plentiful. Stefan Poslad, for example, describes a digital world which is increasingly "populated by a profusion of digital devices, designed to assist and automate more human tasks and activities, to enrich human social interaction and enhance physical world interaction." (Poslad 2009, 1). Or, as Henry Jenkins states:

> "Thanks to the proliferation of channels and the portability of new computer and telecommunications technologies, we are entering an era where media will be everywhere and we

> will use all kinds of media in relation to each other. Our cell phones are not simply telecommunications devices; they also allow us to play games, download information from the internet and receive and send photographs or text messages." (Jenkins 2004, 34)

Cell phones are just a single example of a form of technology which offers us new and modified ways of interaction with other people and with the digital planes in itself. Other examples can be, for example, found online with the development of online platforms, such as Facebook, which are able host games and other applications online as well as the accompanying hardware supporting these applications. Or interconnectivity made possible through cloud hosting on platforms such as Dropbox or the similar Google Drive. These technologies, and countless of others, have an influence on how gamification is as we know it.

Throughout this section the answer of two core questions concerning technology and its relation to gamification are answered. These questions concern the ‘why’ and ‘how’ of the impact of technology on gamification. This is done through a number of analyses of gamification examples which illustrate the dependency on technology. But as this dependency should not be understood as absolute, we will also look at how technology is important to the emergence of gamification. This is analyzed through the concept of 'affordances'. But first, we need to take a step back and consider how technology is changing our everyday environment. After this we can then take a look at what specific forms of emerging technology are relevant to our case. We are then able to pinpoint the relation it has to gamification through relating these forms of technology to examples of applied gamification.

Hybrid Space

It is hard to imagine a day and age without the current technological standards we find ourselves immersed in today. Most exemplary of this is the development of mobile connectivity and the wide variety of available mobile devices as well as the environments, which can be described as 'smart', they are used in. Smart phones, tablets, QR codes, and so on, allow for an urban environment in which "new communications systems are transforming urban temporalities" (Sheller 2011).

Adriana de Souza e Silva, researcher on mobile technologies and public spaces, offers a perspective on how these urban environments are made up of a mixed duality between technological elements and social relationships with the concept of a 'hybrid space'. De Souza e Silva uses mobile phones as an example to illustrate how such a piece of technology creates a shift in the social relationships we have and the different spaces it mediates (Silva 2009, 262). These spaces both encompass the physical and the digital space. The social relationships are concerned in the way these spaces carry and transpose social relationships. The removal of the disconnect between these two forms of space is "because mobile devices create a more dynamic relationship with the Internet, embedding it in outdoor, everyday activities" (ibid.). It is no longer a

simple matter of having the physical space on one hand and the digital space on the other. It is now a matter of a mobile, hybrid space which is characterized by connectivity between users and the Internet who carry mobile devices with them as an "always-on" connection (ibid.).

Yochai Benker argues that the Internet in of itself "allows for a radically more diverse suite of communications models than any of the twentieth-century systems permitted. It allows for textual, aural, and visual communications. It permits spatial and temporal asychronicity, as in the case of e-mail or Web page, but also enable temporal synchronicity - is in the case of IM, online game environments or Voice over Internet Protocol" (Benkler 2006, 370). For example, Shadow Cities, a pervasive game with an online game environment, breaks open boundaries and allows you to transform yourself in an actual wizard, motivating you to traverse the city on the physical planes, while fighting off (real-life) adversaries in mystic virtualities with your magical wand (i.e. an iPhone). Such pervasive games use computational and communications infrastructure which are embedded in our daily lives and environments (Walther 2005).

This, hybrid spaces and spatial and temporal asynchroncity, indicates that the strict boundary between physical and digital is being scrubbed out, leading to a pervasive and ubiquitous quality of technology, permeating many aspects of our lives. An example of an app using gamification, Foursquare, a pervasive application for mobile devices, creates the possibility for behavior such as sharing to your digitally mediated social circle on your iPhone where you are at a specific moment, sipping on a coffee at your local favorite cafe. Foursquare is often heralded as a prime example of gamification. To reaffirm the hybridity of space Foursquare shows the merger of physical movement and presence with digital movement and presence. It is a text book example of how increased connectivity allows for social relationships to be remediated through a mobile application. Through this remediation value and meaning are likely to be added, such as the possibility to stay in touch with your friends more often or get in contact with people you otherwise would not have met. The online check-in functionality of the application allows users to share location-based information with other users. As an incentive to do so the application uses a reward program in the shape of points, badges and a competitive aspect with leaderboards as a layered array of game elements. You receive these rewards for completing tasks such as checking in at ten different venues, which earns you the adventurer badge. This is a system implemented to engage the users of the application and encourage them to enact certain behavior through game mechanics. Foursquare illustrates how gamification is to some degree reliant on technology as mobile devices and geo-location systems. However, this reliance on technology requires a slight nuance to understand what it actually entails, and for that we can consult the concept of ‘affordances’.

Affordances

Although technology has a strong influence in changing social relationships and the connectivity between spaces, it is not an absolute force of change. It is not a deterministic force in the sense that when a certain

technology emerges it demands of the users that they apply and integrate it in their habitual behavior. Certain social and cultural circumstances might advise for the use of technology, but technology in and of itself is not a requirement. Rather, technology is a force that creates 'affordances'. Donald Norman constructed this concept in order to describe how characteristics of artifacts direct consumers' use (Norman 1998). For example, a chair has the characteristic to make sitting in it an appropriate course of action; Microsoft's software program Paint allows you to easily create an image; a mobile phone creates the affordance of calling and texting.

In short, the concept affordance describes the specificity of technology (Schäfer 2011, 31). Following psychologist James Gibson's interpretation, affordances do not specify a goal, but are under the influence of open interpretation. Affordances create environments in which "things that are easier to do are more likely to be done, and things that are harder to do are less likely to be done" (Benkler 2006, 17). But it is not just in any way that the artifact implies affordances and allows consequent appropriation by the user. Actually, the design of the artifact informs the user of its intentions and range of possibilities that it can be used and appropriated for (Schäfer 2011, 32-33).

As was argued previously, an application like Foursquare is reliant on specific forms of technology. However, the core practice found in gamification - to make activities and experiences more engaging through game elements - is of itself not specifically reliant technology, just as the practice is not necessarily a new practice. In a manner of speaking, you can create engaging experiences with a rubber band, a piece of tape, a paperclip and a good dose of creativity and imagination. Concepts which are used thoroughly in gamification, such as badges, have been implemented before in different non-technological reliant practices, as was mentioned in the introductory chapter. An example of this retroactive recognition of gamification is boy and girl scouting. But, new and emerging technologies, such as mobile phones and the Internet, have contributed to the practice of gamification by affording it to alter into the practice it is today. The technology that is available today is used to shape gamification and allow practical applications of gamification which go beyond "sticks-and-stones gamification" like with boy and girl scouting. Gamification should be not be seen as determined by technology. Rather, technology should be seen as a force which opens certain doors which we then choose to walk through or not. Another vital form of technology which creates a number of possibilities for gamification to evolve is sensors.

Sensors allow applications to track certain data from activities. An exemplary case for this can be seen with the applied interconnectivity between sensors and web or mobile applications and physical activity - once again relating back to the blurring boundaries between physical and digital space - as with the products and services offered by Nike with Nike+. As previously mentioned this is an example often used to illustrate gamification. The recently introduced FuelBand, a wristband which tracks physical activity, offers a line of communication between the wristband itself and to the user's web and mobile Nike+ application. This piece of kit affords the runner to add another meaningful layer on top of his already established running habits. It allows the user to track certain data on the go and recall it as desired. For example, you could set yourself a goal of reaching 7500

fuel, the quantified measure of activity, and try to beat it yourself by being active. The device then communicates this through to your Nike+ profile which is available on your mobile phone or in your browser. This piece of kit affords the runner to add another meaningful layer on top of his already established running habits, while also maybe enticing a few not that enthusiastic runners to have a go at it, as Rajat Paharia, CEO of Bunchball states: "The word [gamification] itself implies a transformation of something that exists, and people are starting to see more and more how they can apply it to their own situations" (Mashable 2012). Nike+ is an example of this. Its core design aims to add to something that already exists, namely running, and add to that by giving the users a service and product to make the behavior more engaging and compelling.

This does not only relate to sensors found in gadgets or peripherals, as we encounter in the project Nike+. It also relates to digital sensors programmed in software applications. It is already quite often encountered in browser applications, such as browsing the webstore of the local Ikea for bedroom furniture and the next day being confronted with advertisements listing deals on bedroom furniture while you are watching a video or two on Youtube. Certain online activities of the user are tracked, which are then used in order to play into the user's interests and incentivize him or her to click on that link in the displayed advertisement. Activity is rated and quantified on its frequency and its recentness and translated in a cue to show certain personalized incentives.

The FuelBand and accompanying services and many other similar devices and applications are signifiers of an ongoing trend which can be recognized as a rise of the quantifiable or quantified self. As the concept itself already implies, this trend relates to having access to data which illustrates facets of daily life, such as eating or exercising habits or even activity on social networks, in a way which is supported by statistical data. In favor of optimizing these forms of activity, we use these accessible sensors, simple methods of communication and easy to use data tools to quantify our own activity by giving it numerical values through a remediation from activity to data. Sometimes referred to as "self knowledge through numbers" (The Technium 2011), this trend has a strong relation to emerging technology. This is because these forms of technology afford us to consume data in an accessible and digestible fashion, allowing us to optimize certain behavioral characteristics of ourselves.

This aspect of 'quantification' is for instance recognizable in the practice of rewarding achievements and badges to certain actions, or being placed on leaderboards as a reward for your efforts. This is a common feature seen in games these days: kill ten enemies and you will be rewarded with a badge, signifying the achievement. Your collection of achieved badges are then displayed on you public profile, visible to all, showing your mastery over the games you play. It is even a centralized feature on highly used platforms such as Xbox Live or the PC platform Steam. As mentioned previously in the discourse analysis, achievements, badges and leaderboards are also no rarity when it comes to gamification. This indicates that this rise of the quantified self is related to gamification. For example, they are a prime weapon in the arsenal of software

packages produced by companies such as Badgeville or Bunchball. The core aspect of this is that activity is made measurable, and these measures are then made ready for personal and social consumption.

An example of gamification which shows this development and behavior of a quantified self quite extensively is the application SuperBetter (2012) designed by Jane McConigal, who we met previously in the discourse section.

Figure 3. A screenshot taken of the overview of types of resilience (SuperBetter 2012).

SuperBetter gamifies personal healthcare by giving you goals to achieve and obstacles to overcome. These challenges and the consequent successes you make allow your digital statistics classified as 'mental', 'emotional', 'social' and 'physical' to increase in score, representing the progress you make concerning your health.

When we look back at the questions posed in the introduction of 'how' and 'why' technology relates to gamification, we can conclude that technology is vital to the cause of gamification. This is because technology helped shape the practice and concept into what it is today through certain affordances. These affordances are for example visible with technologies as mobile phones or sensors which open the door to certain forms of interaction in an environment. This environment is signified by a hybrid space, as is seen with pervasive applications like Nike+ or Foursquare, which illustrates how the digital and physical are merging. Through certain technologies, such as mobile phones and sensors, gamification both utilizes and exemplifies this fusion

as it, for example, relies on remediating activity to data, as was argued with the case of the Fuelband and the trend of quantification.

But gamification did not entirely come to be simply through the created affordances of technology. There are still two more aspects to explore: casual and social games and social media and networks. The latter aspect is the main focus of the next section.

Social Networks and the Participatory Culture

Gamification is a development of a core existing practice of making experiences more engaging. The question to answer then is how and why this development occurred. To find this answer, we have firstly explored the role of technology. In general, through technological change "we are beginning to see a series of economic, social, and cultural adaptations that make possible a radical (although not that radical, as will be argued in this section - ed.) transformation of how we make the information environment we occupy as autonomous individuals, citizens, and members of cultural and social groups" (Benkler 2006, 1). More specifically, the interdependence of affordance, design and appropriation of the technology, creates the range of aspects through which consumers are able to use the specific artifact (Schäfer 2011).

In this section we will look at the current day presence of online social networks and the participatory culture and the relation this has to gamification. Once again, similarly to the previous section, we can ask ourselves two questions: how and why is this an important factor in the coming and establishing of gamification? This question is answered through initially exploring the direct relation of gamification to social networks. This is then framed within a wider picture of the participatory culture. With the aid of Henry Jenkins and Mirko Schäfer it is illustrated how gamification relates to the participatory culture and what this signifies.

Social Networks

In the previous section an exemplary case was made of Foursquare, a pervasive application which applies gamification and which connects people through checking in at locations. Once again, Foursquare lends itself as an excellent example, but this time to illustrate the importance of social networks to gamification.

Through the check-in functionality and the sharing of your location a social network is created based on the relationships between users. Following the hybrid space concept and the pervasive quality of this mobile application, this social network is both expressed and embedded digitally through profiles as well as physically through actual presence. While you create this network you interact with the application and you earn

achievements and badges for your efforts, perhaps you even earn a digital 'mayor' position for a certain physical area if you check in the most at that specific area compared to other users. As mentioned previously, this is a reward system. Interestingly, the most prominent reward systems used in gamification - badges, achievements and leaderboards - are strongly dependent on being embedded in a social structure to have meaning. For instance, on your personal profile in Foursquare there is an an overview of your activities and rewards you earned, which is viewable for other users. Your profile is embedded in a vast array of other networked profiles with each having their own expressive lists of achievements and rewards. Similarly, when you check in at a certain location you are able to see a list of people who has checked in most often, with at the top of this leaderboard the mayor. As this leaderboard is publicly accessible it is possible to attribute meaning to the various standings of the people on this leaderboard. You are as a user able to relate your own activity based on the others and see how it compares. For instance, you might notice that it is only another two check-ins to become the mayor of a location, so you are enticed put in a little extra effort to achieve that goal. Without other users to see the accomplishments you have earned, the visual representation of such rewards might not offer enough enticement to undergo the required behavior to earn said rewards. It allows for a competitive element and it creates a social strata, or hierarchy, in that network. Due to this competitive nature it might very well mean that the user is offered a reason and a drive to be better than his or her peers and to show his or her competence. Of course, game elements as badges or achievements are not solely dependent on a social bedding to have meaning. Such rewards could also function as goals for the user which guide him or her along a certain path similar to how a tutorial might do so. However, the expressiveness of such rewards affords them to be appropriated most extensively in a social context.

Gabe Zichermann, the gamification expert we met before in the discourse section, paid special attention to the aspect of rewards in his book Gamification by Design (2011). Zichermann portrays a system of rewards which offer sources of motivation and enticement. He argues that there are four types of rewards which are essential to designing and applying gamification. These are: status, access, power and stuff (2011, 11). These are listed in an order of most to least desired, sticky to least sticky (in reference to how long and how often users engage with the gamified application), and cheapest to most expensive. Without going in depth on what these four types of rewards are, it should be clear how the primary reward of status represents a reward which requires to be embedded in social structures for it to be expressionable. The current presence of online social media and their networks with large userbases create a highly robust platform for these types of status rewards to be embedded in. With gamification, these rewards are most often expressed digitally, for example through the already often encountered badges, leaderboards or levels (ibid.).

Badges, for instance, are considered to be 'virtual goods' in the context of online social media (Antin and Churchill 2011, 1). They can provide for a number of functions, such as reputation, status, affirmation or group identification (ibid.). These functions all refer to social functions. The strong prevalence of social networks in the current online atmosphere allows for fertile bedding for these functions to sustain themselves on. Without

these social networks, the presence and enticement of rewards as leaderboards and badges, and consequently the current prevalence of gamification, would be inherently lower.

However, it is important to realize that these social networks should be placed in an overarching cultural and economical frame. By doing this will be able to grasp the bigger picture of not only how gamification relates to existing and emerging services and products as social networks, but also as to how gamification relates to the development of our cultural industry into a participatory culture.

Participatory Culture – A New Set of Skills

It is argued that we are currently living in a participatory culture, a term conceptualized by Henry Jenkins (1991), where we specialize in actively participating and contributing in personally meaningful problems (Jenkins, 2009). Is it no longer about a smaller group which creates the rules and artifacts which we consume as in a consumer culture; it is about offering opportunities to actively participate and contribute or produce. It is a culture in which low barriers are present for expression and engagement with a supporting sense of social connection and relevance between members of this culture (Jenkins, Clinton, et al. 2006).

At this point it should immediately be transparent how gamification strongly relates to the participatory culture due to the last sentence of the above paragraph. Bells should be ringing when you read the words ‘low barriers’, ‘expression’, ‘engagement’ and ‘social connection’, as we have already come across these in one way or another in relation to gamification. For instance, a general purpose of gamification is to lower the barriers for users to engage with certain processes or content, for example making information about pensions more accessible (as is illustrated a few paragraphs below). Gamification is a tool to lower present barriers in order to create a more engaging experience. In the previous section we have also seen how game elements as badges or leaderboards allow for users to express themselves within a social context. This already briefly illustrates the strong connection between the concept of a culture of participation and gamification. But, of course, that is not all there is to it.

Jenkins and his colleagues argue that to fully involve ourselves with the participatory culture and the new media landscape we need to foster and develop certain new media literacies, which represent a set of cultural competencies and social skills (2006, 4). These new skills encompass play, performance, simulation, appropriation, multitasking, distributed cognition, collective intelligence, judgment, transmedia navigation, networking and negotiation (2006). There is no room here to fully explore all these skills and relate them to gamification, but the first three skills, play, performance and simulation, are particularly interesting to briefly consider as these are related to forms of play and game play and illustrate the increased presence of ludic tendencies in our culture.

Jenkins describes play as “a mode of active engagement, one that encourages experimentation and risk-taking, one that views the process of solving a problem as important as finding the answer, one that offers clearly defined goals and roles that encourage strong identification and emotional investments” (2006, 24). The skill of simulation is described as “the ability to interpret and construct dynamic models of real world processes” (25) and performance entails “the ability to adopt alternative identities for the purpose of improvisation and discovery” (28). How these skills relate to gamification can be illustrated with the example of a gamified pension tool which purpose is to provide an engaging experience in order to teach the public about the importance of correctly and sufficiently arranging your pension.

Knowing how to manage your pension is of great importance when you want to make sure you can live your life as you would desire after you retire. However, it is more than often considered a rather boring subject to inform yourself about. It might very well be a fruitful approach if you could educate people on matters concerning pensions in a more interactive and playful environment through gamification in which they can experiment on how their pension would turn out under the influence of certain events, such as a divorce. Then the initial barrier of boredom and lack of interest is lowered. The activity is motivated as there is a purpose to it; it is after all a plus if you are able to reach your dream pension, and "games (and as such elements inferred from games as is the case with gamification - ed) may represent the best way of tapping that sense of engagement with learning" (Jenkins 2006, 23). Play as active engagement is present since the user is able to experiment with certain situations which represent real-life situations, i.e. simulations. Regarding the skill of representation, within this hypothetical application the user is also able to take on a different identity and see the effect of events that didn’t happen in his or her life, doesn’t expect them to happen or maybe happened to someone close, for the purpose of discovery.

Gamification is able to realize these skills as it offers a means to learn them through applied gamification. Gamification provides the opportunities to engage with applications which facilitate users to be able to learn the skills of play, performance and simulation. In other words, gamification exemplifies how the lessons to learn these skills can be imprinted on a wide variety of practices, processes and content.

Since Jenkins argues that these three skills are inherently related to realizing our full potential within the participatory culture and that these skills can be inferred from gamification, it can be inferred that gamification plays an important part in the participatory culture. Due to the heavy prominence of the participatory culture in today’s society, as Jenkins argues, a strong demand is created to learn the skills Jenkins formulated. Gamification is able to provide the supply to fulfill this demand and consequently the prominence of the participatory culture then relates to the emergence of gamification. As general economics would teach us; where there is a demand, supply is offered. Gamification aims to offer.

With this perspective of Jenkins on the participatory culture we are able to correlate the presence of the participatory culture to the emergence of gamification. What role gamification then plays within the participatory culture can be explored with the aid of Mirko Schäfer, researcher on media and culture.

Participatory Culture – An Extended Cultural Industry

Mirko Schäfer focuses on the participatory culture as a cultural industry. Schäfer argues that emerging media practices, such as illustrated by the buzz-word Web 2.0 which indicates the design and popularity of social media and network platforms like Facebook and Twitter, can be framed in this culture of participation (Schäfer 2011, 16). This is a culture in which consumers have assumed themselves a new role in the context of cultural production as active producers, as illustrated previously.

Schäfer argues that this culture constitutes an extended cultural industry, in contrast to a radical new culture. This refers to "the extension of modes of production into the sphere of users, consumers, and audiences, who participate to various degrees in the creation and use of media texts, consumer goods, and digitized artifacts" (2011, 216). This extension of the cultural industry aligns to the development concerning gamification that is recognized in this thesis. As was argued, gamification is a development, an alteration of a practice of making experiences more engaging. It is not a radical new practice, similarly to how the extended mode of cultural production in the form of a participatory culture is not a radical new shape of culture.

As mentioned previously, the cultural industry of the participatory industry shifts the focus from consumers to active producers. The users of gamified applications are no exception to this. When users engage with gamified applications they also take on a role as active producers. This is not necessarily about the creation of primarily unique content, as is with the blogosphere for example, but is more about the remediation of information and activity from outside of the application to within the context of the application as a visual representation, such as through badges or achievements or other unlocks and rewards. For instance, you solve a problem in Codecademy, an online learning application to hone your HTML coding skills with; your progress bar fills up, representing your increased coding expertise. Or you achieve a personal goal in SuperBetter; one of your statistics increases, offering a visual cue of the progress of your physical and mental health. Or you check in with Foursquare ten times on the same location and you get rewarded a badge.

The applications mentioned above take full advantage of the presence of a culture of participation. These applications offer an enticing and engaging environment for the user to indulge him- or herself in. Different elements inferred from games and game-like structures are integrated into the design of the application to lend it a characteristic similar to those that are found in games, for example through a rewards or progressions program. Reflecting back on the concept of affordances, the design of such an application is made in such a way that it affords certain user activity. This user activity centers on the goals of, for example, achieving activation, user retention and overall engagement. This allows for a further solidification of a participatory

culture as these goals prescribe participation. The different platforms integrating gamification in their practices aim to cultivate interactivity and as such nurture a participatory culture.

However, our role as producers is not necessarily a democratic form of production. This is because the participation is limited to the space afforded by the application (even when it is a hybrid space), similarly to how the structured activity of playing a digital game is limited to the created digital space it takes place in. This has a consequence as this indicates that there are certain power relations in play which limits participation and possibly even directs it due to the fact that activity in relation to the application is limited to the activities that are afforded through the design of the application.

When looking at gamification from a business' point of view it constitutes a marketing strategy as well as a business model. It should be clear that increased user participation, activation or retention represent business and marketing oriented goals as they are purposed to increase revenue. It only takes a quick visit to Badgeville's frontpage on their website to be confronted with numerous percentages which promises 15% more conversions, 75% more engagement and 200% more social referrals. The problem does not necessarily lie with the case of old business models and new media practices colliding, such as Schäfer argues (2011, 226). It is rather about enticing desired behavior from a user; behavior the user would otherwise possibly not engage in. This refers back to what we encountered with Ian Bogost in the discourse section where he refers to gamification as 'exploitationware' (2011), focusing on the exploitative nature of gamification which is induced by businesses and corporations to create a profit. He argues that this term covers the intentions and purposes of gamification more explicitly, instead of veiling it in a word which might imply easy implementation and easy benefits. Going even further in the same line of thought, Brian Harvey, a lecturer on computer science and social implications, states the following:

> "This [gamification] is a matter for intervention, not prediction. It should be illegal, with serious penalties (life in prison, for example), to use information ostensibly gathered for one purpose for something else without an explicit, competent, well-informed opt-in by the person who legitimately owns the information—not third parties, such as pharmacies or search engines or ISPs. Someone who puts up a game-like thing in order to coax people into providing free labor, or in order to collect information for any commercial purpose, is committing a profound violation of human rights." (Pew Internet 2012).

It can be argued that, when framing gamification in the terms of a critical theory on the political economy of the Internet, gamification shows a relation to 'free labor', as seen in the quote above, or even 'exploitative labor' (Terranova 2003). In that sense you could wonder to what extent the participatory culture in relation to practices concerning gamification is a democratic culture to the extent as depicted by Jenkins. However, if we look at a core source of gamification, games, we could also wonder if the exploitative and behavior directing aspect of gamification is not simply a characteristic inherited from games. After all, it can be safely said that a

primary goal of designing a game is to guide the player along a certain path by creating an intuitive and enticing environment. However, the goal of games and gamification are inherently different. While it may be similar in respect to guiding a player along a certain path, it is no longer similar as that guidance in games should be unnoticeable or it could prove to result in an immersion break. Gamification does not necessarily have the goal to immerse the user, it rather constitutes a method used to incentivize and motivate certain behavior; not to provide an immersive experience.

Schäfer's perspective on the participatory culture aids us to gain an understanding of what role gamification plays within the participatory culture and how active participation relates to gamification. It was argued that with gamification active participation is afforded by the gamified application due to the participatory orientation of business oriented goals as user retention, conversions or social referrals. However, these business oriented goals could very well endanger certain democratic principles, resulting in users being exploited.

Casual Revolution

As we have explored the discourse, created affordances through technology and social networks, as well as the relation of gamification to the participatory culture, we will now look at a core aspect of gamification: the games. As was argued in the Discourse section, games and more specifically the lessons learned from creating games, are an integral part of gamification, as the term itself very clearly indicates. As such, it is valuable to take a closer look at how games are developing to relate this development to the emergence of gamification as a practice and concept. However, it is not viable within the scope of this research to go through the entire history of games. For this reason specific attention shall be given to a recent development which closely relates to the wide adoption of gamification: the casual revolution.

Computer gaming has been growing at a relentless pace since the 1980s, reaching millions upon millions of players on a global scale. More recently, it is argued that computer gaming has undergone a reinvention or revolution. This is a revolution on which the more fanatic, hardcore game players reflect on with a rather bitter taste: the rise of the casual and social games and the emergence of the respective gamers who plays these games. This development has changed the gaming industry radically. Jesper Juul refers to it as the casual revolution (2010). At the heart of this revolution are systems like the Nintendo Wii with the motion peripherals, the social games as FarmVille on platforms as Facebook as well as the wide variety and highly successful games available on mobile devices. Following the mass usage (Juul 2010, 7) of these types of games, it could be argued that being a gamer is becoming less an exception and more of a commonality in the current society. But it is no exception that a game is able to reach a large audience. You only have to take a look at the sales numbers of Blizzard's recently released Diablo III for example, which sold 3.5 million copies in the first 24 hours of its release (Blizzard Entertainment 2012). However, the difference with the casual revolution is that

not necessarily a single game is able to reach a large audience, but that a large number of games are able to reach a wider audience. This is an audience that reaches beyond the traditional video game audience (Juul 2010, 27) as reached by a game as Diablo III.

Juul describes two trends, which he sees as the liveliest, in relation to the casual revolution (2010, 5). Firstly he illustrates the importance of the trend of mimetic interfaces, which entails the mirroring of physical activity into digital game activity. Peripherals to the home consoles, such as the Wii Mote for the Wii home console (released in 2006) or the Kinect (released in 2010) for the Microsoft Xbox 360, allow motion control of in-game activity as represented by physical activity. In the Xbox 360 game Dance Central (released in 2010), for example, you are asked to mirror the actual dancing moves as displayed by the game. Mirroring these movements with your body in the same way that they are displayed on the screen allows for a far more intuitive interface compared pressing a button on a controller to initiate the required moves. Regarding this aspect, I would also like to add the appropriation of the mimetic interfaces on the current generation of touch control mobile phones, as seen on the iPhone for example. The touch control offers an intuitive way of navigation by following certain familiar principles such as momentum. Mobile games utilize this by offering a, for instance, one-touch interface as control scheme for the game. This control scheme is easily relatable and manageable. Secondly, Juul highlights the aspect of downloadable casual games, which are bought online and offer a quick an easy gaming experience. These include mobile games as Angry Birds (released in 2009) or Wordfeud (released in 2010) which enjoy huge successes. They also often rely on the intuitiveness of the touch screen interface on mobile devices. Although not exactly downloadable, I would also like to include the browser games (games which you can play in your Internet browser), for example found on Facebook, as FarmVille (released in 2009), to this equation. These two trends are what allow the recognition of and appreciation for a casual revolution.

The casual revolution is not without its implications to our understanding of gamification. The idea that playing games is becoming more of a commonality than an exception plays in favor of the emergence of gamification. It aids in respect that it makes us more likely to engage in game-like activities due to the reason that games are becoming a more common presence in our lives. As the casual revolution indicates, we are exposed more often to gaming elements, which the designers consequently recognize and play into by designing for more game-like experiences, similar to how game audiences and game design co-evolve: “The audience learns a new set of conventions, and the next game design can be based on the assumption that the audience knows those conventions" (Juul, 2010, 10). This results in a self-enforcing cycle in which the presence of game-like activities, such as afforded by applied gamification, increases.

This new set of conventions also makes it easier to approach gamified applications as a user for it lowers the boundaries to engage with these applications. As this revolution indicates a more wide spread and higher quantity of people playing games, these people become more learned in and adapted to the act of playing games. They learn the suitable set of skills required to play these games. They learn the conventions of gaming

and the elements these games apply in their design, which are lessons that further our skillset, as recognized by Jenkins and previously illustrated, to effectively navigate the participatory culture. When these lessons are learned it creates the allowance for designers to apply these elements from games into other contexts which aren't inherently related to games, for example in an application concerning informing the public of pensions as we encountered in the previous section, and design for certain experiences through gamification. Through this they consequently shape the practice of gamification. The audience has then learned certain conventions which raises the relative skill required to undertake the activity, while at one time in the past a user might not know what to do with or how to appreciate a pension application. As we get accustomed to new conventions an allowance is created for the redesign of the barrier for engagement, further purposing the then present affordances to design for engaging experiences through gamification.

The further appropriation of these new conventions allows ourselves to further explore and develop what we could call a 'playful identity' (Raessens 2005; 2006). This represents an identity constructed on the basis of engaging in ludic activities. This also encompasses the appropriation, the creation and shaping of 'gaming capital', a rewording of Pierre Bourdieu's 'cultural capital' by Mia Consalvo, researcher on communication studies (2007). Although this concept was initially intended to provide an indication of a form of dynamic, abstract currency exclusively used for the act of playing games and engaging in 'meta-activities' (such as visiting looking up a walkthrough of a game), it can also be ascribed to gamification and the game-like activities it involves. In this sense the gaming capital is extending beyond games into the realm of daily activities which have been subjected to the principles of gamification. This, once again, indicates the sustenance and intensifying of a ludic culture. Similar to how game elements are added to and pervade aspects of daily life, gaming capital is being added to the 'portfolio' of more and more members of our society through the conventions afforded by the casual revolution, serving the further development of a playful identity. Possibly, when this gaming capital has taken up such a prominent role in our daily interactions we will need to consider ourselves as players (Roig et al, 2009), rather than users, consumers or producers. This would take us beyond the process of a ludification of culture to a completed state of a ludified culture.

Conclusion

Why gamification now? Throughout this thesis we have looked for an answer to this question. We began by searching through the discourse of gamification to gain a better understanding of what gamification actually entails. We have seen how and why certain relevant actors are appropriating the practice and concept of gamification. Sometimes it is used as a product to sell in the form of easy to apply gamification platforms or as an intricate revisit of existing structures. Other times it is seen as a concept which might save the world through applications as SuperBetter. But not all see it through such rose-colored glasses, as other times still gamification is interpreted as a malign practice which actual intention is the exploitation of users. This initial exploration served to create an understanding of what gamification actually is and who currently is appropriating it. This understanding was carried with us as we further explored the reasons for why gamification emerged as it did in the second half of 2010.

We then analyzed three developments which specifically relate to the emergence of gamification. We first analyzed the relation between technology and gamification. We learned that technology is vital to the emergence of gamification as it created certain affordances. These affordances are for example made visible with technologies as mobile phones or sensors through which a hybrid space (de Souza e Silva 2009) is established in which the physical space merges with the digital space. Gamification exemplifies this hybrid space with gamified applications as Nike+, the Fuelband or SuperBetter. In these applications physical activity is remediated to data, expressed by game elements as badges, points or leaderboards, which were recognized as representative of gamification in the discourse section. But, as we have seen, these game elements require to be embedded in social networks for them to be expressionable and to have adequate value and meaning to serve the purpose they were intended for, which for instance could be user retention, activation and participation. The strong current presence of social networks affords these game elements to serve a number of functions as virtual goods (Consalvo 2007) which are vital for the current prevalence of gamification.

However, from an overarching cultural-economic perspective, it is not just social networks which solely are responsible for the emergence and prevalence of gamification. In order to further understand this we had to turn to the overarching concept of the participatory culture which describes a culture in which low barriers are present for expression and engagement with a supporting sense of social connection and relevance between members of this culture (Jenkins 2006) as well as an extended cultural industry where we take the role on as active producers (Schäfer 2011). It was illustrated that to fully involve ourselves with the participatory culture we need to develop certain new media literacies, represented by a number of skills, which, for instance, consist of play, simulation and representation (Jenkins 2006). These skills and their roles within the

participatory culture are realized through gamification. The current participatory culture demands from us that we educate ourselves to learn these skills and gamification aims to provide the means to do so.

We then turned our attention to the final aspect of the answer of why gamification emerged now: the casual revolution. Referring back to the skills we have to learn in the current participatory culture, the casual revolution helps to create a number of conventions which serve in lieu of the emergence and prominence of gamification. These conventions create the affordances which allow the possibility to engage with game-like activities. Through these affordances new playful identities are constructed (Raessens 2005; 2006), which ultimately imply a further solidification of a ludic culture in the spirit of Johan Huizinga's homo ludens (1955). Following this development it would seem that we as homo ludens are developing ourselves further and further as the society we explore our potential in develops concurrently towards game-like activities, as gamification illustrates. We have seen how certain developments are nudging us in a direction of ludic activities, and, apparently, we are happy to oblige given the promise and presence of such changes as the casual revolution and the socially, technologically and culturally afforded practice of gamification.

Discussion

Since gamification as a concept only emerged so recently, it is still a concept which is very much in its infancy. This means that it is still strongly subject to further development and discussion. Over the coming years, gamification will be explored and applied by a wide variety of parties, ranging from critics to avid supporters, such as those that were illustrated in the discourse section. These parties will further shape gamification into what it will be. Also, developments on the planes of technology or in cultural and social spheres might have a lasting effect on the further development and appropriation of gamification.

An analysis of such a concept in such a fragile state as performed here can only go so far. It would be most valuable to not lose track of it and follow its development, whether it is towards the fate of disregarded buzzwords or as a foundation of our daily interactions. It might move passed the Gartner Hype Cycle; it might fall off the edge into oblivion.

Without a doubt, play is a fundamental aspect in our lives. Researching its implications might unveil pressing matters which are changing society today. Johan Huizinga's thoughts have made a lasting impact on how we perceive the culture and society around us. The perception of us as homo ludens has proven to be indicative for a number of developments and instances, such as gamification and the ludification of culture. However, the limits of a ludic culture should not be disregarded. Similarly to how the shift from a consumer to a participatory culture did not suddenly turn everyone in an active participant, it should be expected that the ludification of culture will not imply that everyone is turned into a 'player' (Roig et al 2009).

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Appendix A

The following is an overview of the sources used to generate the wordcloud through Wordle.net as is seen in the Discourse section. Every source was accessed at the 16th of June 2012.

Notable Persons

- Ian Bogost
    - Gamification is exploitationware.
    - http://www.gamasutra.com/view/feature/6366/persuasive_games_exploitationware.php
- Gabe Zichermann
    - The process of game-thinking and game mechanics to engage users and solve problems.
    - Book: Gamification by Design
- Seth Priebatsch (SCVNGR)
    - Game layer on top of the world.
    - http://www.ted.com/talks/lang/en/seth_priebatsch_the_game_layer_on_top_of_the_world.html
- Sebastian Deterding et al
    - The use of design elements in non-game contexts.
    - Gamification is an informal umbrella term for the use of video game elements in non-gaming systems to improve user experience and user engagement.
    - http://gamification-research.org/wp-content/uploads/2011/04/01-Deterding-Sicart-Nacke-OHara-Dixon.pdf
- Amy Yo Kim
    - Gamification is a loyalty program on steroids using game techniques to turbo-charge products and services using levels, rewards and unlocks to drive behavior turning real-world activities into games.
    - http://www.slideshare.net/amyjokim/gamification-101-design-the-player-journey
- Michael Wu
    - Gamification is *the* use of game attributes to drive game-like player behavior in a non-game context.
    - http://lithosphere.lithium.com/t5/Building-Community-the-Platform/What-is-Gamification-Really/ba-p/30447
- Joey Lee & Jessica Hammer
    - The use of game mechanics, dynamics, and frameworks to promote desired behaviors.

- http://www.gamifyingeducation.org/files/Lee-Hammer-AEQ-2011.pdf

Borderline Definitions

- Jesse Schell
  - A game is a problem solving activity, approached with a playful attitude.
  - 4 key areas to game design: aesthetics, story, mechanics and technology.
  - Book: The Art of Game Design
- Jane McGonigal
  - When you strip away the genre differences and the technological complexities, all games share four defining traits: a goal, rules, a feedback system, and voluntary participation.
  - Book: Reality is Broken

Companies

- Badgeville
  - Gamification is a modern business strategy that uses proven techniques from social gaming to measure and influence behavior.
  - http://www.badgeville.com/main/gamification
- Bunchball
  - The overall goal of gamification is to engage people to participate – to share and interact in some activity or community by offering a compelling, dynamic, and sustained gamification experience, and which can be used to accomplish a variety of business goals.
  - http://www.bunchball.com/
- Deloitte
  - Gamification is about taking the essence of games – fun, play and passion – and applying it to real-world, non-game situations. In a business setting, that means designing solutions using gaming principles in everything from back-office tasks and training to sales management and career counseling. Game mechanics lie at the heart of gamification. For example, achievement levels, point-tracking and bonuses are ways for desired activities to be recognized and rewarded.
  - http://deloitteblog.co.za.www102.cpt1.host-h.net/tag/gamification/
- InvGate (IT management tools)
  - Gamification involves applying game mechanics to business applications to make them more engaging and collaborative.
  - http://www.invgate.com/en/
- BigDoor
  - Gamification 101. Game mechanics encourage users to engage with your content on a much deeper level. Users will stay longer, come back more often, and generate more revenue for you.

  - http://www.bigdoor.com/gamification-101/
- iActionable
  - Gamification increases engagement by leveraging feedback mechanisms traditionally found in games.
  - http://iactionable.com/gamification/what-is-gamification/

Leading Websites

- Los Angeles Times
  - Gamification, the practice involves using game mechanics to get people to spend more time on certain products, be it a website or a piece of software.
  - http://articles.latimes.com/2011/feb/28/business/la-fi-ct-gamification-20110301
- Forrester
  - Gamification done right takes a behavior-focused approach to driving engagement. Forrester defines gamification as the insertion of game dynamics and mechanics into non-game activities to drive a desired behavior.
  - http://www.forrester.com/Gamification+101+Using+The+Levers+Of+Engagement/-/E-WEB8073?objectid=WEB8073
- Wikipedia
  - Gamification is the use of game design techniques, game thinking and game mechanics to enhance non-game contexts. Typically gamification applies to non-game applications and processes, in order to encourage people to adopt them, or to influence how they are used. Gamification works by making technology more engaging, by encouraging users to engage in desired behaviors, by showing a path to mastery and autonomy, by helping to solve problems and not being a distraction, and by taking advantage of humans' psychological predisposition to engage in gaming.
  - Gamification is the use of game design techniques and mechanics to solve problems and engage audiences.
- Gamification.org Wiki
  - Gamification is the infusion of game mechanics, game design techniques, and/or game syle into anything.
  - http://en.wikipedia.org/wiki/Gamification
- Mashable
  - Gamification is most often defined as the use of gameplay mechanics for non-game applications.
  - http://mashable.com/2011/07/28/gamification/
- Forbes
  - It’s believed that gamification can be used to motivate engagement and certain behaviors for both your customers and employees. It’s about creating identity and reputation and

recognizing a person's attention and loyalty. It isn't just about awarding badges and it isn't about games for the sake of creating a fun workplace. Mr. Duggan states true gamification offers deeper engagement such as real-time feedback loops when people do things, social experiences and creating layers of engagement inside the company.
    - http://www.forbes.com/sites/maribellopez/2011/12/19/gamification-is-more-than-a-game-for-businesses/
- Freebase
    - Gamification is the use of game design techniques, game thinking and game mechanics to enhance non-game contexts.
    - http://www.freebase.com/view/m/0cm8xv9

Miscellaneous Websites (based on Google search results presence)

- Ezinearticles
    - Gamification is a term used to describe the implementation of game mechanics and techniques into areas and industries outside of gaming.
    - http://ezinearticles.com/?What-Is-Gamification?&id=6843725
- Tyrelaltrup
    - Pitching Gamification without using the G-word. Use: Reward, Recognition, and Motivation Programs.
    - http://tyleraltrup.com/2012/02/27/stop-using-the-g-word-how-to-successfully-pitch-gamification/
- Newstopiaville
    - At its most basic level, the term refers to the idea of incorporating the elements of video games into nongaming Web sites and services that utilize social networking features.
    - http://www.newstopiaville.com/
- L&S Unscripties
    - Gamification is the result of involving or applying game design thinking to non-game applications in order to make them more fun and engaging.
    - http://www.ls-unscripted.com/index.php/2012/02/23/gamification-grows-with-consumers/
- SocialBusinessInsightsBlog
    - Gamification is the application of game design techniques to business processes aimed at encouraging user adoption and participation. This is typically achieved by: Achievement badges, Achievement levels, Reward systems, Leader boards.
    - https://www-304.ibm.com/connections/blogs/socialbusiness/entry/gamification_unlocking_hidden_collaboration_potential2?lang=en_us
- Social Knowledge

  - Influencing the digital behavior of customers along the lines of gaming such as awarding badges or achievements.
  - https://sites.google.com/site/kmsocial/gamification
- Wharton, Univerisy of Pennsylvania
  - Gamification refers to the use of techniques from game design in serious business contexts.
  - http://mackcenter.wharton.upenn.edu/news-post/for-the-win-the-serious-gamification-symposium
- GovLoop
  - Gamification refers to the practice of making non-game activities more like games by incorporating achievement-based reward systems.
  - http://www.govloop.com/profiles/blogs/when-will-we-see-gamification-in-government
- Because Play Matters (MIT person)
  - Meaningful gamification is the use of game design elements to help users find meaning in non-game contexts.
  - http://becauseplaymatters.com/blog/2012/1/21/introduction-to-meaningful-gamification.html
- Ebookbotics
  - Gamification refers to the integration and use of game play mechanics in websites, communities or services in order to encourage participation and engage consumers. It is a strategy predicated on the idea of taking advantage of our apparent predisposition to play games.
  - http://www.ebookbotics.com/2011/02/gamification-e-books/
- Yaniv Corem, gamification expert at IBM Research
  - Gamification is the process of using game thinking and game mechanics in non-game applications to increase engagement. Game thinking can be used to make almost anything fun and encourage people to get involved.
  - http://futuristlab.tumblr.com/post/18198256546/the-future-of-gaming-on-non-gaming-industries
- Bizshifts
  - Gamification is the concept of applying game-design thinking to non-game applications (i.e., business…) to make them more fun and engaging.
  - http://bizshifts-trends.com/2012/03/15/new-age-of-gamification-business-differentiator-marketing-reinvented-customer-engager-or-just-hype-game-mechanics-for-business/
- Johnbell
  - No, it's really not about gaming. It's about good old behavioral economics using game mechanics.
  - http://johnbell.typepad.com/weblog/2012/01/actionable-2012-social-business-predictions-3-gamification-endures.html