Gamification in Japan: a critical analysis

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Introduction

Recent years have marked the beginning of a new era for businesses to engage customers with their brand and products, using the internet as the primary mediator. The rapid development of the internet and the consequent spread of the social web has not only been the enabling factor for connecting people to one another, but also for connecting companies with their customers. Social media has proved to play a pivotal role in providing new ways of customer engagement and encouraging customer's buying behavior, of which a concept known as "gamification" has grown out to become a global phenomenon. Gamification can be defined as "an umbrella term for the use of video game elements (rather than full-fledged games) to improve user experience and user engagement in non-game services and applications" (Deterding et al., 2011: 2425). The process is concerned with integrating gaming elements in everyday life, where it can be used to achieve a variety of different purposes, such as raising users' motivation or encouraging users to perform a certain action.

In August 2011, American-based information technology research and advisory company Gartner published a press release on the future of gamification, stating: "By 2014, more than 70 percent of Global 2000 organizations will have at least one

"gamified" application […]. Analysts said that while the current success of gamification is largely driven by novelty and hype, gamification is positioned to become a highly significant trend over the next five years" (Gartner, 2011). Gartner's prediction turned out to be correct. The concept of gamification has gained a lot of global attention in recent years, especially within the field of marketing and e-commerce, due to its potential to actively attract and engage potential and existing customers.

Although gamification is originally a Western concept, it has also enjoyed considerable traction in non-Western markets. In Japan, gamification became a trending topic in 2011, as the concept and its potential for business and marketing have been picked up by several media, including coverage by leading financial newspapers such as the Nikkei (*Nihon Keizai Shinbun* 日本経済新聞) (Shin, 2011), television documentaries broadcasted by Japan's national broadcasting organization NHK (*Nippon Hōsō Kyōkai* 日本放送協会) (Mizuguchi, 2011), as well as articles that appeared in fashion magazines such as "GQ Japan" (Kobayashi, 2011). Western scholarship on gamification in the Japanese context however, is relatively scarce, as the majority of publications available on this topic has been written exclusively for a domestic audience.

This thesis aims to find an answer to the question of how the concept of gamification has developed within the Japanese market and for what purposes it is used

in contemporary Japan, in both commercial and non-commercial contexts. As the Japanese game industry has developed along a quite different path in comparison to that of, for example, the United States and European countries, it is assumable that gamification is applied differently as well. Looking at Japan's long history and experience as a pioneer in the global game industry and its highly innovative service-oriented economy, it is safe to argue that Japan can be regarded as a perfect platform for developing and applying gamification for various purposes.

The first chapter of this thesis aims at providing, first, a brief overview of the main theories that are fundamental to an understanding of the concept of gamification. Both the concepts "play" and "game" constitute an indispensable part of contemporary studies on games. I will analyze these theories in their original form and meaning before the dawn of the digital age, as defined by Huizinga (1955) and Caillois (1961). I will then analyze how "play" is related to "game" –especially in the context of digital games– by referring to contemporary game studies (Salen & Zimmerman, 2004; McGonigal, 2011).

In the second chapter I will set out the psychological framework that is necessary to understand why humans spend time on playing games. An analysis of the notion of "motivation" is necessary in order to provide more insight in what underlying cogni-

tive elements are taken into account in the development process of games. I will refer to two major theories in the area of psychology regarding human motivational behavior, the "self-determination theory" and the "uses and gratifications theory," which I will then apply in the context of (digital) games.

The third chapter will focus on the Japanese game industry. In order to find an answer to the question of how the concept of gamification has developed in the Japanese context, it is necessary to look at the Japanese market and analyze recent trends and technological developments that have contributed to the rapid spread of "gamified" applications. I will demonstrate that two major trends known as "onlinification" and "casualization" have played a significant role in changing the structure of the Japanese game market, which have made games and "gamified" applications more accessible to a wider variety of users.

Chapter four will aim at identifying the use of gamification in Japan. I will analyze in what way contemporary Japanese enterprises incorporate game elements in their business practices to influence customers' behavior, and how "gamified" concepts are used in non-commercial contexts.

Finally, the results of this research will be presented in the conclusion.

Chapter 1: Theories of *play* and *game*

In this chapter I will present an overview of the existing theories regarding both the concepts of "play" and "game." Before delving deeper into the topic of gamification, it is important to analyze what is exactly meant by these two terms, and how they are interrelated. An indispensable part of contemporary studies on digital games, conducted by both game researchers and game developers, is the understanding of the concept of play. I will start by analyzing the concept of play before digital media came to constitute an important part of our daily lives. I will then examine the meaning of this term in the context of digital games, and analyze the relationship between play and game as it is understood in contemporary game studies. In the final part of this chapter I will explain the function of play and game, based on the results of various studies.

Homo Ludens: A Study of the Play-element in Culture (1955), a work by Dutch cultural historian Johan Huizinga, can be regarded as one of the fundamental books of the discipline of play. This book, originally published in Dutch in 1938, is still considered to be of great importance to contemporary studies of play and games. In his book, Huizinga argues that play is an activity that has existed longer than culture and that in play "there is something "at play" which transcends the immediate needs of life and

imparts meaning to the action" (Huizinga, 1955: 1). Huizinga defines the concept of play as follows: "A free activity standing quite consciously outside 'ordinary' life as being 'not serious', but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest, and no profit can be gained by it. It proceeds within its own proper boundaries of time and space according to fixed rules and in an orderly manner. It promotes the formation of social groupings which tend to surround themselves with secrecy and to stress their difference from the common world by disguise or other means." (Ibid., 13). Playing, as defined by Huizinga, is not a meaningless activity, it has an important function. The concepts of play and culture are closely connected to each other, as "culture arises in the form of play," and through playing, "society expresses its interpretation of life and the world" (Ibid., 46).

Huizinga distinguishes six characteristics of play, starting with its voluntary nature. Play is an activity that "can be deferred or suspended at any time" and "is never imposed by physical necessity or moral duty" (Ibid., 8). Secondly, play implies the act of 'pretending', as it is manifested as "a temporary activity satisfying in itself and ending there; […] an *interlude* in our daily lives" (Ibid., 9). The third main characteristic of play he points out, is the perception that play is restricted to certain limits of time and space. Play has a starting and ending point, and spaces used for acts of play "are tempo-

rary worlds within the ordinary world, dedicated to the performance of an act apart" (Ibid., 9-10). Another peculiar aspect of play is the notion of order: "into an imperfect world and into the confusion of life it brings a temporary, a limited perfection. […] it may be that this aesthetic factor is identical with the impulse to create orderly form, which animates play in all its aspects" (Ibid., 10). Fifth, the element of tension has a significant importance in play. As Huizinga explains, tension implies "a striving to decide the issue and so end it", that triggers the player's appetite "to "succeed" by his own exertions" (Ibid., 10-11). The sixth and last characteristic of play that Huizinga distinguishes, is that it is the rules of a game that "determine what 'holds' in the temporary world circumscribed by play", as a violation of the rules will cause the temporary world to collapse (Ibid., 11).

In *Man, Play and Games*, a work originally published in 1958, French sociologist Roger Caillois presents a critical examination of Huizinga's analysis of the main characteristics of play. Although Caillois recognizes the importance of Huizinga's work in the domain of play and culture, he argues that Huizinga's analysis didn't extend as far as to critically assess the diversified forms of play and the significance of acts of play within several cultural contexts (Caillois, 1961: ix). While Huizinga regards play as an activity that is excluded from all material interest, Caillois points out that games of

chance for example, constitute an important part of everyday life in various parts of the world, and he emphasizes its significance within the cultural context by stating that "in certain of its manifestations, play is designed to be extremely lucrative or ruinous" (Ibid., 5).

Caillois replaces Huizinga's model and proposes a classification of play divided into four categories, which he respectively refers to as "agôn" (competition), "alea" (chance), "mimicry" (simulation), and "ilinx" (vertigo) (Ibid., 12). "Agôn" is defined by Caillois as a classification of play with a competitive nature; "like a combat in which equality of chances is artificially created, in order that the adversaries should confront each other under ideal conditions" (Ibid., 14). "Alea," in contrast to "agôn," refers to a classification of games "that are based on a decision independent of the player, [...] and in which winning is the result of fate rather than triumphing over an adversary" (Ibid., 17). The third classification of play Caillois mentions, is "mimicry": play of an illusionary nature in an imaginary world, where a player "forgets, disguises, or temporarily sheds his personality in order to feign another" (Ibid., 19). The fourth and final category of Caillois' classification of play, is "ilinx." Caillois defines "ilinx" as "an attempt to momentarily destroy the stability of perception and inflict a kind of voluptuous panic upon an otherwise lucid mind" (Ibid., 23). Although Caillois acknowledges that his

classification does not encompass the entire universe of play (Ibid., 13), he does provide a critical analysis of the main characteristics of play as pointed out by Huizinga, and even covers a wider spectrum of the concept of play and its significance within the cultural context.

Huizinga's analysis and Caillois' classification of play still constitute an indispensable reference in contemporary studies on digital games, performed by game researchers and game developers. Based on the results of several studies on both the concepts of play and of game, Katie Salen and Eric Zimmerman (2004) have developed a definition of "game" that contains key elements of definitions brought forward by various studies. The definition they propose is: "A game is a system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome" (Salen & Zimmerman, 2004: 80). A quantifiable outcome, as they point out, is what determines whether a player has won or lost, and what "distinguishes a game from less formal play activities" (Ibid.).

In addition to Salen and Zimmerman's definition of game, digital game designer Jane McGonigal (2011) argues that all games have four elements in common –that is, without taking into account genres and technological differences– which she defines as goal, rules, feedback system, and voluntary participation respectively

(McGonigal, 2011: 21). First of all, it is necessary for a game to have a specific goal, as it "provides players with *a sense of purpose*"; having a goal in mind that players can work to achieve "focuses their attention and continually orients their participation throughout the game" (Ibid.). The rules of a game put a restriction on the actions a player is allowed to perform. As McGonigal explains, the existence of rules forces the player to think of innovative ways to achieve a certain goal, and will therefore "*unleash creativity and foster strategic thinking*" (Ibid.). Third, a feedback system informs players on how far or how close they are of achieving a certain goal. McGonigal argues that the presence of a feedback system is necessary, as it serves as a "*promise* to the players that the goal is definitely achievable, and it provides *motivation* to keep playing" (Ibid.). The final defining element of a game according to McGonigal, is voluntary participation. Participating in a game on a voluntary basis "*establishes common ground* for multiple people to play together." It also implies that "intentionally stressful and challenging work is experienced as *safe* and *pleasurable* activity" (Ibid.).

Theories of play and game are key to understanding the concept of gamification. This chapter aimed at providing and analyzing definitions of these two notions as proposed in a variety of literature within the field of game studies. In the next chapter I will analyze gamification from a psychological perspective.

Chapter 2: Motivation for playing games

As already concisely stated in the introductory chapter of this thesis, the concept of gamification is concerned with integrating elements of games in everyday life to improve user experience and user engagement in non-game services and applications. Examples of video game elements are, for example, the implementation of a point-based scoring system, the visualization of ranks to encourage interactivity and competition between users, allowing users to earn badges as a reward for completing set missions or goals, and maintaining a leveling-system in order to engage users in a fun and dynamic way. In this chapter I will point out that one of the fundamental aspects that drive humans to spend time on playing games, is motivation. In order to understand which underlying cognitive elements are taken into account in the development process of games, it is necessary to analyze this topic from a psychological perspective. I will refer to two major theories in the area of psychology that can be used to explain the human motivations behind playing games: the "self-determination theory," and the "uses and gratifications theory," which will both be analyzed in this chapter.

In *Self-Determination Theory* (1985), a study of human motivation and personality by psychologists Richard M. Ryan and Edward L. Deci of the University of Roch-

ester, different types of motivation are distinguished, of which the basic distinction is between intrinsic motivation and extrinsic motivation (Ryan & Deci, 1985). Intrinsic motivation is a pervasive and critical form of motivation that refers to "doing something because it is inherently interesting or enjoyable," whereas extrinsic motivation is concerned with "doing something because it leads to a separable outcome" (Ibid., 55). Intrinsically motivated people will get a sense of enjoyment when performing a certain task rather than relying on external factors, such as receiving a grade or reward. Ryan and Deci argue that intrinsic motivation is especially important when placed into an educational context; human skills are improved and knowledge increases through "acting on one's inherent interests." Intrinsic motivation therefore is strongly connected with "high-quality learning and creativity" (Ibid., 55-56). In other words, one way to foster creativity and self-directed, effective learning, is to create an environment that actively stimulates an individual's intrinsic motivation.

Since the "self-determination theory" was first coined in 1985, several studies have been carried out on human behavior in the context of games, focusing particularly on the concepts of intrinsic and extrinsic motivation. In a 2006 empirical study of the "self-determination theory" applied to digital games, Ryan, Rigby and Przybylski refer to three psychological needs underlying psychological wellness: (1) autonomy, which

concerns "a sense of volition or willingness when doing a task", (2) competence, "a need for challenge and feelings of effectance," and lastly (3) relatedness, which is a psychological need "experienced when a person feels connected with others" (Ryan et al., 2006: 346-347). The results of the study show that these three psychological needs are satisfied through playing games and that a game's potential to stimulate feelings of autonomy, competence and relatedness enhances users' psychological well-being and "both game enjoyment and preference for future play" (Ibid., 358).

A different theory that explains the human motivation behind playing games, is the "uses and gratifications theory." This theory is an approach within the academic field of communication and media research, that aims at studying the individual needs that media users seek to gratify when utilizing various media resources. Sherry, Lucas, Greenberg & Lachlan (2006) argue that one of the key assumptions within this approach, is the self-regulating nature of humans: human beings satisfy their individual needs by responding to it. This self-regulating nature is demonstrated in a person's preference for media content (Sherry, et al., 2006: 214). In other words, users of media search for media content that corresponds to their individual needs. The theory also holds that the cognitive effect media usage brings about, is dependent on the individual needs of the user. Reading a magazine article to actively increase one's knowledge on a certain topic

is likely to have a greater cognitive impact on the individual than, for example, reading

an article for the sole purpose of passing time (Ibid.).

The "uses and gratifications theory" can also be applied to the enjoyment of

digital games, as they offer users a means for satisfying their individual needs. Based on

the results of various focus group studies, Sherry et al. have pointed out six dominant

motivations of video game play, which they respectively refer to as arousal, challenge,

competition, diversion, fantasy, and social interaction (Ibid., 217). The first motivation

they distinguish, arousal, holds that users choose to play video games "to stimulate

emotions as a result of fast action and high-quality graphics" (Ibid.). Challenge is con-

cerned with users' desire of personal accomplishment, for example by attaining a higher

level or skill, which is also closely linked to the third motivation, competition, which

implies the user's need to compete with and surpass others. Video games can also serve

as a means for users to relax, especially to take one's mind off of responsibilities for a

short amount of time. This is what the fourth motivation, diversion, as pointed out by

Sherry et al., is concerned with. Another motivation that makes video games appealing

to users, is fantasy. Like the term suggests, the appeal of fantasy lies within the notion

of "being able to do things they [users] cannot do in real life" (Ibid., 218). The final mo-

tivation, social interaction, is a crucial one, as video games enable users to interact and

socialize with each other, even to the extent of learning more about the personalities of other users (Ibid.). The "self-determination theory" and the "uses and gratifications" theory share a fair amount of common elements when placed in the context of digital games. Both theories stress the importance of a competitive element –individually as well as with multiple users– to keep users engaged, and they also emphasize the need for social interaction between users.

Theories on human motivation in the context of digital games have gained considerable attention in scholarly as well as popular literature in Japan in recent years. In a 2012 publication by Hiromi Kubota, editor for Japan's national broadcasting organization NHK, Kubota explains from a behavioral economic perspective how game mechanics can be applied for business and marketing purposes in order to ensure effective user engagement. Kubota applies three concepts from the discipline of behavioral economics to gamification, which he respectively refers to as behavioral momentum, endowment effect and loss aversion (Kubota, 2012).

Behavioral momentum is concerned with a tendency of users of digital games to perform a single action repeatedly when playing a game. Game developers seek to intensify this tendency by adding certain visual elements to the game experience, for example, progress bars to inform users about their current status and how long it will

take to attain a specific achievement goal, which will keep users motivated to keep playing even if they feel like they have reached their 'limit' (Ibid.). This element is very similar to McGonigal's feedback system as I explained in the first chapter of this thesis.

The second concept Kubota points out, the endowment effect, holds that users of digital games tend to attribute a lot of value to the things they 'own,' particularly if it is achieved through their own, individual labor. The more time and effort invested into attaining a certain goal, the higher the personal value ascribed to that particular achievement. As a response to this tendency, digital games generally use a reward-based system that enables users to obtain virtual items (not necessarily with monetary value) as a reward for their achievements (Ibid.).

The final behavioral economic concept he points out, loss aversion, is closely linked to the endowment effect. The satisfaction users experience when obtaining a reward for the attainment of a specific goal is outweighed by the cognitive impact of losing an item someone has put a lot of effort into to obtain. Kubota explains that by adding competitive elements to a game and encouraging competition between users, game developers aim to stimulate loss aversion to keep users engaged (Ibid.).

Furthermore, in a 2014 Japanese publication on gamification, Ichimura, Yazawa, Tomaru, and Watanabe distinguish three factors that are crucial in raising users'

motivation and keeping users motivated, which they respectively define as *jiritsusei* 自律性, *kachi* 価値 and *nōryoku* 能力 (Ichimura, et al., 2014: 1285). Whereas *jiritsusei* and *nōryoku* can be roughly translated as "autonomy" and "competence" respectively (which I have explained earlier in this chapter as defined by Ryan, Rigby and Przybylski), value is concerned with the personal beliefs and values of a user. A person's motivation is expected to increase if the goal that person is pursuing is conform with his or her individual values; the more a person considers a certain goal to be important, the more probable it becomes that he or she will eventually succeed in attaining that goal (Ibid., 1286).

Intrinsic and extrinsic motivation are two important notions to consider when understanding the mechanisms behind contemporary digital games. Game developers seek to enhance users' motivation by implementing a combination of specific elements into a game's design. Actively encouraging mutual competition and social interaction between users for example, is expected to have a positive effect on user engagement. In the next chapter I will demonstrate that the "social" aspect of modern digital games is essential in understanding the recent spread and growing popularity of "gamified" applications.

Chapter 3: The Japanese context

In this chapter I will analyze recent trends and technological developments that have contributed to the rapid spread of "gamified" applications in the Japanese market. The first part of this chapter will focus on the transformation of the Japanese market for mobile phones, and it will demonstrate how two major trends, "onlinification" and "casualization," have subsequently made digital games more accessible to a wider variety of users. In the second part, I will look at the rise of social media and the subsequent occurrence of a phenomenon known as "social games," in order to provide an answer to the question why gamification and the implementation of "gamified" applications for business purposes have become such trending topics in recent years.

Over the last decade, game content that requires the user to utilize the internet environment to interact with other users has been gaining in popularity rapidly. Recent years have also marked a significant shift from the use of domestic game consoles that once dominated the Japanese game market, to platforms that aren't initially designed for the exclusive use of playing games, such as smart phones and tablets. According to the Japanese Ministry of Economy, Trade and Industry (*Keizai-sangyō-shō* 経済産業省 or METI), the Japanese gaming industry is valued at 1.6 trillion yen in 2016, with online

and mobile games accounting for approximately 62.5 percent of the entire industry, in huge contrast with arcade games and software-based games that only amount to 25 and 12.5 percent respectively (METI, 2016: 1). A 2014 paper on the Japanese content industry published by the Mizuho Bank, Ltd., evidently shows that after reaching its peak in 1997, the popularity of Japanese software-based games has been in state of decline ever since (Mizuho Bank, Ltd., 2014: 118). The 90's also mark the dawn of the mobile phone era, and its consequent launch of mobile phone games, that started gaining a lot of attention after Japanese mobile phone operator NTT DOCOMO released its mobile internet service "i-mode" in 1999.

The Japanese mobile game market is characterized by three very distinct transition phases, starting with a growing market for application-based games compatible with feature phones between 1999 and 2010, followed by an market expansion for social games (this term will be explained later in this chapter) designed for feature phones between 2010 and 2012, and lastly the expansion of the smart phone game market from 2013 until present (Mizuho Bank, Ltd., 2014: 119).

Suenaga, Yoshikawa and Terano (2016) argue that two major trends are responsible for the transformation of the Japanese game market, referred by them as the "onlinification" (*onrain-ka* オンライン化)' and "casualization" (*kajuaru-ka* カジュア

ル化) of games (Suenaga et al, 2016: 187). The term "onlinification" holds that game developers seek to decrease marginal production costs by offering game content online instead of requiring users to buy game software at a store, and implies a shift of the internal structure of the Japanese game market to a service-oriented industry (Ibid.). "Casualization" on the other hand, is aimed at users with limited knowledge of gaming and/or gaming culture that usually don't play games –also referred to as casual users or casual gamers– and connotes that developers seek to change the content of games and services offered, by simplifying and/or eliminating conventional game elements, in order to appeal to greater audiences (Ibid.).

To lower the psychological barrier for potential users, these games are made available for personal devices and generally use a free-to-play business model, which is known as the "freemium"-model, a term first coined by Chris Anderson in 2009. The term combines the words "free" and "premium," and is used to refer to a digital business model by which developers offer a service for free, while relying on a small percentage of users that are willing to pay for an enhanced version of the service or additional game content (Anderson, 2009: 26). As handheld personal devices provide easy access to this type of games, the number of applications employing this type of business model, and the number of users that make frequent use of these services, has increased

significantly in recent years.

The shift to a service-based game industry and the change of attitude of consumers towards playing games is best explained by the spread of social media, in particular the rise of social networking services (SNS), during the first decade of the 21st century, and the consequent occurrence of an even more recent phenomenon, known as social games. The term social games is used to refer to games on a free-to-play basis that are being offered on general purpose machines, such as smart phones and tablets, where communication and interaction with other users is embedded into the game's content (Suenaga et al, 2016: 187). As Matsumoto (2014) explains, social games are an example of "casualization," as they generally use a basic format and come with easy to understand instructions as users proceed through the game (Matsumoto, 2014: 282).

The Japanese Ministry of Internal Affairs and Communications (*Sōmu-shō* 総務省 or MIC) classifies "social media" as interactive media that allow users to share information with other users on the internet, including blogs, social networking services, video sharing websites, messaging applications, and information sharing websites (MIC, 2015: 199). The table on the next page shows social media per classification and examples of the most commonly used websites and applications in Japan as of 2015.

Classification	Name		
Blog	Ameba	アメーバブログ	*Amēba Burogu*
	Cocolog	ココログ	*Kokorogu*
	Seesaa Blog	Seesaa ブログ	*Seesaa Burogu*
	Livedoor Blog	ライブドアブログ	*Raibudoa Burogu*
Social networking services	Facebook		
	Twitter		
	Mixi	ミクシィ	*Mikushī*
	Instagram		
	LinkedIn		
Video sharing websites	YouTube		
	Nico Nico Douga	ニコニコ動画	*Niko Niko Dōga*
	TwitCasting	ツイキャス	*Tsuikyasu*
	Vine		
Messaging applications	LINE		
	WhatsApp		
	Viber		
	WeChat		
Information sharing websites	Kakaku.com	価格コム	*Kakaku Komu*
	Tabelog	食べログ	*Taberogu*
	Cookpad	クックパッド	*Kukkupaddo*

(MIC, 2015: 199)

The rise of the social game phenomenon is strongly tied to the wide-scale spread and popularity of social networking services and the integration of these web-sites into the daily practices of its users. Generally speaking, every social networking service supports the maintenance of already existing social networks, but some also

support connecting users who have never met each other in reality, by linking them on the basis of common interests. Professor and game researcher Inoue Akito (2012) from the Center of Global Communications of the International University of Japan (*Kokusai Daigaku Gurōbaru Komyunikēshon Sentā* 国際大学グローバル・コミュニケーション・センター or GLOCOM) points out that the social aspect of these services is demonstrated through maintaining so-called friends lists, for example *maimiku* マイミク for Japanese social networking website Mixi, consisting of profiles of other users that a person has met virtually and registered by using that particular social media platform (Inoue, 2012: 48). Connecting people on a global scale by means of social media platforms has had a tremendous impact on the exchange and distribution of information, as social networking services have grown to spread information faster than any other media.

Social games can be regarded as a solution to guarantee users' steady and continued use of a service. Inoue points out that social games weren't initially intended to spread like social networking services, but that the implementation of games on social networking websites demonstrated a significant increase in user activity, as it caused users to make more frequent and longer use of the website's services (Ibid., 53). One Japanese company in particular that is nowadays best known as a social gaming plat-

form, is GREE グリー. GREE started out as a social networking service, but succeeded in enhancing user activity by means of implementing social games. One of the reasons implementing games can lead to an increase of user activity, is concerned with the ability of computers to take on the role as a virtual companion or opponent (Ibid., 54). Before games became a common occurrence on social media, the scope of actions a user was able to perform on social networking services was very limited. If, for example, none of the people registered in a user's friends list were online, a high user activity was very unlikely to occur. Inoue argues however that with the implementation of social games on social networking services, users were able to continue making use of the service even if none of their registered friends were online (Ibid.). Secondly, the design of social games is focused on encouraging users' repetitive activity, as one mere session is not enough to finish the game. Playing a game repeatedly will make you get more experienced, and some games even have an option embedded that lets you enhance your virtual character. Inoue argues that one of the strong points of social games is concerned with the process, rather than the actual result, that is, finishing the game (Ibid.).

Chapter 4: The application of gamification in Japan

As I pointed out in the introductory paragraph of this thesis, gamification, as an initially Western concept, has also gained considerable traction within contemporary non-Western business communities on a worldwide scale. According to Deterding et al. (2011), gamification has become a popular term among researchers in recent years, as it is regarded "as a potential means to create engaging workplaces or facilitate mass-collaboration." (Deterding et al., 2011: 2425). Although gamification is generally understood in the context of digital games, this does not necessarily have to be the case.

In the short article "Gamification: Toward a Definition" (2011), Deterding et al. stress that gamification involves elements of games, as opposed to elements of play –which embraces a much broader definition as discussed before– and that the process of gamification is not solely limited to digital technology (Deterding et al., 2011: 7). In addition to this, in a 2013 article on the effectiveness of gamification in a commercial context, Ryan et al. argue that the potential and success of "gamified" applications is also being enhanced by the concurrence of both "the coming of age of Generation Y" –the generation born between 1980 and 2000, which largely consists of active consumers of the online gaming and service industry– and "the overcrowding of the digital

space" (Ryan et al., 2013: 2).

In the following part of this chapter I will mainly refer to Japanese publications on gamification to find an answer to the question in what way the concept has developed within the Japanese market, and for what purposes it is applied in contemporary Japan, from both a commercial and a non-commercial perspective.

4.1: Gamification for commercial purposes

Gamification has grown out to become a popular term in Japan, as an innovative and efficient means of active customer engagement. Inoue (2012) argues that one of the main reasons gamification has become such a trending topic in the fields of marketing and e-commerce, is because it functions as a means to ensure customers' repeated utilization of certain products and/or services and that it has the potential to enhance user activity effectively (Inoue, 2012: 56). Implementing a "gamified" digital application on social media for example, can be an effective way to engage current and future customers, which then has the potential of establishing a new, or strengthening an already existing relationship between both parties. Inoue also stresses the importance of the distinction between extrinsic and intrinsic motivation when placed in the context of gamification. He views gamification as a mechanism to urge on a user's intrinsic moti-

vation by utilizing extrinsically motivating game elements such as rewards (Inoue, 2012: 60).

Fukada (2012) points out that customer loyalty is a company's source of profit, as it has proved to lead to favorable economic results, such as reducing customer acquisition costs and operation costs, and it has the potential of increasing a company's clientele through referrals of loyal customers by word of mouth (Fukada, 2012: ch.0, para.3[1]) Increasing customer loyalty through the use of game elements in a brand's marketing efforts will add an increased potential of continuity to service relationships, so customers are more likely to buy more products of the same brand or make more frequent use of its services.

Fukada uses the social game mechanism to distinguish two key considerations that are important when thinking about the implementation of "gamified" concepts. The first consideration is concerned with looking at the process to keep improving the game, a concept that he defines as "tuning" (*chūningu* チューニング) (Fukada, 2012: ch.4, para.0). "Gamified" concepts are based on a set of hypotheses, which, in most cases, turn out to be completely different in reality than initially assumed to be effective. Game developers have to analyze user behavior and make adjustments to keep them motivated

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[1] Due to the absence of page numbers in this publication, I will hereon refer to chapter and paragraph numbers in their place in the in-text citation.

to play the game. Fukada therefore stresses the necessity for a continual adjustment of the game to ensure optimal performance, and he even goes as far as to state that the 'real' beginning only comes as soon as a game is released by a company (Ibid., ch.4, para.0).

Another key consideration that he distinguishes is concerned with the importance of a game mechanism that allows for the generation of a steady flow of experienced players, a concept he explains through the term *jōkyūsha-muke* 上級者向け (Ibid., ch.4, para.1), which literally translates as "aimed at experienced persons." Fukada argues that a good balance of game elements is necessary in order to generate experienced players; if the structure of the game doesn't encourage players to invest time and effort into the game, it will cause them to lose interest.

4.2.1: Seven-Eleven Japan: gamification in information management

An example of a Japanese company that succeeded in using elements of gamification effectively in its business strategies, is convenience-store chain Seven-Eleven. As stated on the official website, Seven-Eleven Japan *(Kabushiki-gaisha Sebun-Irebun Japan* 株式会社セブン - イレブン・ジャパン), a subsidiary of Seven & I Holdings (*Kabushiki-gaisha Sebun ando Ai Hōrudingusu* 株式会社セブン&アイ・ホールディングス), currently operates 60,695 convenience stores around the globe, of

which Japan accounts for approximately one-third of the stores, 19,045, in total.

Although being modeled after the original American convenience-store franchise model, Seven-Eleven Japan has developed along a different course, mainly due to its investment and research in fields such as commodity management to acquire the necessary knowledge for offering a wide range of products (Fukada, 2012, ch.4, para.1). Even more importantly, the company's structure developed from simple retail to an information industry, in which the implementation of a logistics strategy that focuses on "item-by-item management," *tanpin kanri* 単品管理, as part of its POS (Point Of Sales) information system, has proven to be the successful factor that attributed to the chain's rapid corporate growth and expansion (Kawabe, 2004: 27).

Fukada argues that the concept of "tuning," in the context of social games to ensure an optimal performance, is also being exercised in the business practices of the convenience stores operated by Seven-Eleven Japan (Fukada, 2012, ch.4, para.4). Not only does the POS system register quantitative data such as the name of the product, the quantity and sum total of the purchased items, the date and time of purchase and the person in charge of the register, it can also be used to collect customer information regarding age and gender. The information and cross-data analyses generated by the POS system for each specific convenience store then allows the personnel to "tune" the

product line-up, by placing orders and arranging items in a way conform with the customer's demands (Ibid., ch.4, para.5).

Additionally, Seven-Eleven Japan also employs a variety of other information systems which data can be used to predict and adjust to consumer behavior, such as weather indices. If, for example, the weather forecast predicts that the temperature will rise five or six degrees on a winter day, the demand for chilled products is likely to increase, even though such a strategy would seem to be contradicting common knowledge (Ibid., ch.4, para.5). While "tuning" is applied to social games in order to adjust to user's behavior to ensure their continued and prolonged participation in a game, the case of Seven-Eleven Japan demonstrates its effective usage in responding actively to consumer's needs.

4.1.2: AKB48:

AKB48 is a famous, if not the most well-known, idol group in Japan produced by Japanese lyricist and music producer Akimoto Yasushi, that initially started out as a project consisting of 20 female members in 2005. Ever since its founding, many domestic sister groups, such as SKE48 in Nagoya, NMB48 in Osaka, HKT48 in Fukuoka, as well as overseas sister groups such as SNH48 in Shanghai and JKT48 in Jakarta, have

also entered the stage.

The concept of AKB48 is based on interaction between the members and its fans. AKB48's successful business strategy has not only gained domestic attention, it has also gained a lot of traction overseas. As mentioned in a 2011 publication by The Wall Street Journal on the success of AKB48's business model for example, "fan access and participation" can be considered to be the key ingredient of AKB48's success, as "many of AKB48's hard-core *otaku*, or geek, fans buy dozens, or even hundreds of copies of the same CD to give their favorite girl a boost in rankings, or to win a chance to meet her in person" (Joyce & Maxwell, 2011). Two very important aspects of the idol group that allow fans to have greater access to interacting with their favorite member(s), are firstly a concept known as *Senbatsu Sōsenkyo* 選抜総選挙 or "general elections," annual popularity contests between members of the group, and secondly, *Zenkoku Akushu-kai* 全国握手会 or "national handshake events," where fans are given the chance to meet their favorite member in person. Buying a CD single of a member of the group allows a fan to cast a vote, which adds the probability that that particular member will be elected to participate in the "Senbatsu Sōsenkyo."

Ueda (2013) points out that one of the main characteristics of the promotional strategy pursued by the management of AKB48 that is widely regarded to have contrib-

uted to its success, is the focus on live performances and the use of the internet to actively engaging its fan base, rather than advertising through mass media (Ueda, 2013: 92). The openness and transparency of the competition between members and the democratic nature of the "Senbatsu Sōsenkyo" in which fans are given a vote (Ibid., 92), encourage fans to actively participate.

Fukada (2012) states that when we look at the business model of AKB48 from the perspective of gamification, a number of game elements can be distinguished. First of all, fan's support is visualized through a ranking system based on the number of cast votes that all individual members of the group have received (Fukada, 2012: ch.5, para.1). The visualization of rankings in this context, employs the function of a feedback system that promises players that the goal they are trying to achieve is definitely possible, and it encourages them to keep voting for their favorite member. The most popular 80 members that get elected during the "Senbatsu Sōsenkyo" will subsequently be split into groups according to popularity, which enforces team competition among fans (Fukada, 2012: ch.5, para.1).

4.1.3: "Gacha": the element of chance as a business model

A very distinctive element of social games designed for the Japanese market is

the way in which the "freemium"-model is applied. As I mentioned in the previous chapter, this business model is dependent on a very limited number of users that are willing to pay for an enhanced version of the service or additional game content. Matsumoto (2014) explains that in most cases, users are given the opportunity to either buy extra game content directly, or to make use of a system known in Japan as "gacha*"* ガチャ –a Japanese onomatopoeic expression that represents the clattering of capsule toy dispensers– which lets them stimulate their gambling appetite by adding the possibility of receiving an extra rare item (Matsumoto, 2014: 282). Concisely stated, "gacha" can be regarded as a game mechanism placed inside a social game, comparable to a virtual lottery, that acts as a form of monetization. Like Matsumoto's definition of the concept suggests, making use of this service does not necessarily imply that the user will actually receive the virtual item he or she demands, as the item is randomly generated. There is an element of chance involved in this "gamified" type of business model, that aims at motivating users to make consecutive use of the service.

The implementation of the "gacha" business model is a common characteristic of social games offered on Japanese social gaming platforms such as DeNa and GREE. In a 2013 publication by Matsubara Kenji, former CEO of social game developer Zynga Japan (*Jinga Japan Kabushiki-gaisha* ジンガジャパン株式会社), points out that vir-

tual card games –social games in which users can collect virtual cards and use these to compete against each other– for example, make very effective use of the "gacha" system, as the user is motivated to become more advanced by means of collecting more and better cards to be able to compete with other users (Matsubara, 2013: 77).

The necessity of collecting rare items in order to have an competitive advantage over one's opponent is imbedded into the structure of the majority of Japanese social games. The more advanced a user becomes, the more the user is usually motivated to spend money on social gaming services (Ibid., 77). This concept is very much concerned with "jōkyūsha-muke" (Fukada, 2012) as I have pointed out earlier in this chapter. It is safe to argue that the implementation of a game mechanism that allows for a steady flow of experienced players, and the same time encourages them to invest time and effort into the game, in this case is also very likely to affect the probability users make use of the "gacha" system.

4.2: Gamification for non-commercial purposes

4.2.1: Knowledge communities: gamification for information exchange

Although gamification has shown to be an effective means in the fields of marketing and e-commerce, it is also successfully used in non-commercial contexts. An

example that can be found in the way gamification is applied to Question and Answer Services (QAS), also referred to as knowledge communities, such as "OKWave," "Yahoo! Chiebukuro" Yahoo!知恵袋, "Oshiete! goo" 教えて！goo, "Hatsugen Komachi" 発言小町, and "Jinriki Kensaku Hatena" 人力検索はてな. These are virtual community-based platforms designed for serving the purpose of information exchange, that allow users to both submit questions and answer questions submitted by other users on a variety of topics.

In most cases users will receive points for each correct answer provided, but the reward policy that is being advocated differs per knowledge community service (Ogawa, et al., 2011: 2). The majority of knowledge communities, including "Yahoo! Chiebukuro" for example, maintain a non-monetary reward system where the questioner will pick a "best answer" out of all answers provided by other users. Knowledge community "Jinriki Kensaku Hatena" on the other hand, encourages questioners, based on the quality of the answer provided, to distribute so-called "Hatena Points" はてなポイント to other users. From 2001 to 2006 a system was maintained that allowed users that accumulated over 2000 points to exchange these points for money. After the abolishment of this system in 2006, points could be exchanged for Amazon gift vouchers instead, but due to recent revision of terms however, the service ceased its operations as

of August 1st 2015 (Hatena, 2015).

A payback system, for example by means of implementing a point-based scoring system, serves as an extrinsically motivating factor that encourages users to actively participate online in exchanging knowledge with others (Inoue, 2012: 60). In recent years, the concept of knowledge management has also come to play an increasingly important role in new business strategies, as more and more companies are exploring the possibilities of establishing an internal knowledge sharing culture based on the structure of digital knowledge communities (Ogawa, et al., 2011: 2).

4.2.2: Serious games: games for education and social change

In *Serious games: Mechanisms and effects*, Ritterfeld, Cody and Vorderer argue that the term "serious games" "may easily be criticized for its literal meaning, which is an oxymoron: Games are inherently fun and not serious" (Ritterfeld, et al., 2009: 3). The ambiguity of the term also becomes evident when it is placed in the context of Huizinga's definition as mentioned in the first chapter of this thesis, as he defines games as an activity "[…] standing quite consciously outside 'ordinary' life as being 'not serious', but at the same time absorbing the player intensely and utterly" (Huizinga, 1955: 13). The notions "serious" and "game" indeed seem to be rather ambiguous when

placed in the same context, but this does not necessarily imply that serious games aren't meant to be fun at all.

The term "serious games" is concerned with the purpose game developers aim to achieve, rather than the individual sensation players experience when playing the game. Although the origins of the word can be traced back to 1970, when it was first coined by Clark C. Abt in his pioneering work *Serious Games* (1970), I will, for the purpose of this thesis, refer to the definition as proposed by Ritterfeld et al. due to its applicability on contemporary digital games. They define serious games as "any form of interactive computer-based game software for one or multiple players to be used on any platform and that has been developed with the intention to be more than entertainment" (Ritterfeld et al., 2009: 6). Serious games can be regarded as games designed with a specific goal other than serving the sole purpose of entertainment, such as educating users, or raising users' awareness concerning a specific topic.

A good example of a serious game in the Japanese context, is "#denkimeter" (Inoue, 2012: 7). #denkimeter is a serious game developed by Inoue Akito in 2011, that uses a "gamified" user-interface to improve not only individual performance but also to foster group collaboration to find a solution for a specific social problem, that is, electricity conservation. The game was initially proposed almost immediately after the

Great East Japan Earthquake and Tsunami disaster that occurred in the northeastern part of Japan on 11 March 2011, when not only the stricken areas, but also the Tokyo area suffered severe electricity shortages. The concept of the game is very easy: users are required to record the four digits of their electricity meter at hourly intervals and submit this information through a form made available on the official website (Ibid.). The website will then generate a number displayed as *sentōryoku* 戦闘力, roughly translated as "combat power," that users can copy and post on their Twitter-account using the tag "#denkimeter" to compete with other users. The more electricity users conserve, the higher the score users receive. After the release of an iPhone-compatible version of the application ("iDenkimeter"), #denkimeter was picked up by several media and the number of users increased significantly (Ibid., 8).

More examples of Japanese serious games specifically designed for the purpose of environmental conservation, are for example "Eco-ego" (Marukin-Ad, Co. Ltd.), that aims at raising users' awareness regarding their daily energy consumption and how it affects the environment, and "Pirika" (Pirika, Inc.), which goal is to make a positive contribution to solving the global litter problem. #denkimeter, as well as Eco-ego and Pirika, demonstrate how implementing game elements in a non-game context can motivate users to actively engage in contributing to the solving of social prob-

lems. As the primary purpose of these games is concerned with a "serious" problem, game developers seek to combine the 'best of both worlds,' that is, employing a game format that effectively addresses a problem, whilst making it playable and interesting for users at the same time.

Serious games are also used for educational purposes. Matsumoto (2014) points out that the development of new game software and methods of utilization are crucial for the development of serious games (Matsumoto, 2014: 482). In a 2015 publication, assistant professor at the Center for Research and Development of Higher Education (*Daigaku Sōgō Kyōiku Kenkyū Sentā* 大学総合教育研究センター) of the University of Tokyo, Fujimoto Tōru, states that in order for an environment that allows for the development of games for educational purposes to be created, a close cooperation between game developers and education professionals is necessary (Fujimoto, 2015: 250).

Interest regarding the development of education-themed games used to be limited to very few companies, but social and technological changes in recent years have made it possible for large-scale events to appear in Japan, such as so-called "game jams," where game developers gather and co-create games in a short amount of time (Ibid.). Serious game jams have become a phenomenon in Japan after the first event was held in

2014. Each event has a "serious" theme that game developers are required to aim at, such as English language education for children, cyber security and wheelchair accessibility. Through these events, the community of serious game developers and researchers is gradually expanding (Ibid.).

Conclusion

This thesis aimed at finding an answer to the question of how the concept of

gamification has developed within the Japanese market, and for what purposes it is used

in contemporary Japan, in both commercial and non-commercial contexts. I have ana-

lyzed gamification and its usage from a variety of perspectives, and pointed out that

motivation can be regarded as the driving force behind this concept. Gamification can

be used as a mechanism to urge on a user's intrinsic motivation, by utilizing extrinsi-

cally motivating game elements such as rewards. Implementing gamification in a com-

pany's business strategy can be an effective way to engage customers, which then has

the potential of establishing new, or strengthening existing relationships.

I have demonstrated how Seven-Eleven Japan effectively implements

"gamified" elements in its business practices as an essential part of its "item-by-item

management," in order to respond actively to the customer's demands ("tuning") and

ensure their customers' continued and prolonged patronage for each and every conven-

ience store operated by the chain. In the case of the idol group AKB48, which concept is

originally based on interaction between the members and its fans, a ranking system to

visualize their fans' support, the increased probability of meeting a member in person

that is implied with every CD purchase, and the addition of a competitive element, can all be regarded as game elements implemented for the purpose of engaging their fan base. Thirdly, I have demonstrated how the element of chance is used in Japan as a successful business model for the social game market. The "gacha"-business model, that functions as a 'mini game' placed inside a social game, is designed is such a way that it motivates users to make consecutive use of the service, as the probability of receiving rare virtual items is implied. These items will allow users to become more advanced ("jōkyūsha-muke") and have a competitive advantage over other users.

These examples show that gamification in commercial contexts can be very lucrative when implemented effectively. However, the use of gamification is not solely limited to enhancing an enterprise's business practices. As I have demonstrated in this research, knowledge communities and serious games use a "gamified" approach for non-commercial purposes. The Japanese knowledge community platforms that I used for my analysis, employ a point-based scoring system to extrinsically motivate users to participate in exchanging knowledge with others, by sharing, and respond to, questions online. Serious games are designed specifically for addressing a "serious" issue, and aim at intrinsically motivating users through the utilization of game elements. #denkimeter showed how successfully fostering group collaboration among users can

make a positive contribution to addressing a serious issue. As Japan faces different social problems than, for example, Western countries, it is assumable that serious games in Japan will also develop along a different course. Japan would therefore make an interesting case study for serious game research, for example on the topic of education regarding natural disasters.

Due to the limited capacity of this thesis, and the relatively scarce availability of research in the field of gamification as demonstrated in Japanese scholarly works, it was not possible to conduct a thorough analysis on every case of gamification in the Japanese context. This thesis does, however, provide a critical analysis of, and insight into, the current state of affairs regarding the development and application of gamification in Japan. This research would therefore serve as a good starting point for future research on the topic of gamification. Suggestions for further research on gamification in the Japanese context could be: analyzing current initiatives and future possibilities regarding the application of gamification in disaster prevention and education, categorizing different types of "gamified" business models (such as the "gacha"-model in the context of social games), and a case study on Japanese business strategies and the use of Virtual Reality (VR) in their marketing efforts.

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