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Gamification – Does it lead to higher motivation?

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1 Introduction

Since ever humans strive for recognition and success. That could be put down to the fact that centuries in the past the rule of the survival of the fittest was valid. According to Darwinians the fittest person is therefore more successful in surviving than the other ones. This rule is still in the head of humans. For instance, the competition between women regarding beauty can be seen as its legacy. It is almost a certainty that more beautiful women are more successful than not that beautiful ones. Humans do always try to be better than others to gain prestige and recognition.

Also the American psychologist Abraham Maslow illustrated this in the “Maslow’s hierarchy of needs”. It says that humans have different kind of needs like basic needs, psychological needs and self-fulfillment needs. Within the psychological needs Maslow defined the Self-Esteem needs which include the need for prestige and the feeling of accomplishment. Driven by those needs, humans compare with each other.

2 Definition of Gamification

Nowadays psychologist know that humans strive for competition and success. Companies try to use the advantage of this behavior by introducing gamification in their business concepts. The main goal of gamification for companies is to motivate their employees and to increase the employees’ engagement for the company.

Gamification is known as the “act of adding systematic game elements into services.”¹ The word Gameification was first used by Brett Terill in 2008 in a blogpost where he defined it as “taking game mechanics and applying them to other web properties to increase engagement.”² Two years later the term changed to Gamification and was used in the widespread industry.³ Gamification has the aim to evoke, with the help of different experiences in a games and additionally certain rewards, a change in behavior for instants a higher degree of engagement within the company.⁴ With gamification the companies try to keep their employees motivated.

In order to understand gamification, we first need to distinguish the difference between play and game. Playing describes a free-form, where an improvisational behavior is shown.

¹ Huotari, Kai; Hamari, Juho: Defining Gamification – A Service Marketing Perspective, p.17 (22.12.16)

² Terrill, B. (2008): My Coverage of Lobby of the Social Gaming Summit

³ Deterding, S.; Dixon, D.; Khaled R. & Nacke L.; (2011): From Game Design Elements to Gamefulness - Defining “Gamification”

⁴ Tiehl, J.(2015): Nachhaltigkeit der Motivation in der Gamification p.3

Gaming on the other hand is characterized as playing with rules and determined goals. When we talk about gamification we talk about design elements of gaming, which are clearly determined and rules-based.⁵ “A game is a system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome.”⁶

Karl Kapp even expand this definition with the content of Raph Koster's *Theory of Fun* to the definition “A game is a system in which players engage in an abstract challenge, defined by rules, interactivity, and feedback, that results in a quantifiable outcome often eliciting an emotional reaction.”⁷ To understand the definition ones have to look at each element.

System means that each part of the game influences another. The system defines rules for the game and the possible actions, whereupon those actions are linked to scores. A player is the person who is involved in the game. The player might interact with another player or with the game content.

By using the word abstract Kapp means that “games typically involve an abstraction reality and typically take place in a narrowly defined game space.”⁸ Games include realistic situation but do not copy them completely. Furthermore, the game needs to provide a challenge as without a challenge it will get boring and costumers will not spend time on it anymore. As explained before, games are based on rules what makes the actions within it either fair or not fair. Also games involve interactions with other players, the game content and the game system. An important part of games is the feedback they give to the players. It is clear, direct and immediately available. At the end of the game the players clearly know if they won or lost the game, this is what Kapp means when using the term of quantifiable outcomes. The last element of the definition is emotional reaction. Games cause a wide range of emotions during and after the game – from anger to frustration to happiness.

All these elements create the value of the game for the player. Therefore it is important to understand that when we talk about gamification the word play is inappropriate as gamification is more about engagement than about playing.

The research corporation Gartner Inc. forecasts that by 2015, a gamified service for consumer goods marketing will be as important as eBay, Facebook or Amazon, and more than 70% of Global 2000 organizations will have at least one gamified application.⁹ Consequently, the importance of understanding gamification and its range of possibilities is one of the most significant challenge companies nowadays must face.

⁵ Groh, Fabian(2012): Gamification: State of the Art Definition and Utilization

⁶ Salen, K.; Zimmerman, E.(2003): Rules of Play: Game Design Fundamentals.

⁷ Kapp, K.(2012): The Gamification of Learning and Instruction: Game-based Methods and Strategies for Training and Education, p.7

⁸ Kapp, K.(2012): The Gamification of Learning and Instruction: Game-based Methods and Strategies for Training and Education, p.7

⁹ Gartner, Inc (2011): Gartner Says By 2015, More Than 50 Percent of Organizations That Manage Innovation Processes Will Gamify Those Processes

3 Motivation

The main goal of gamification is to keep employees motivated so they increase productivity within the company. Therefore, a clear understanding of what motivation is, is necessary.

When looking at the research, there are two types of motivation – extrinsic and intrinsic motivation. Motivation theorists have argued that behavior is determined by both intrinsic and extrinsic motivation.¹⁰

3.1 Extrinsic motivation

Extrinsic motivation is the engagement in a task not for its own sake but to reach some desired end state.¹¹ A person therefore is extrinsic motivated when he is doing something to receive a reward or to avoid punishment. The only incentive for the action is the rewarding – if there would be none, the person would not do the action.

3.2 Intrinsic motivation

“Intrinsic value is the enjoyment one gains from doing the task.”¹² Consequently, a person is intrinsic motivated when he act for his own satisfaction and does for its own sake.

It says that intrinsic motivation has a higher value than extrinsic motivation as people work harder, are happier and the motivation is more sustainable. “A recurring theme in the popular management literature is that extrinsic rewards diminish intrinsic motivation, and this problem is so serious that it can render extrinsic incentives for performance of any kind as ineffective or even counterproductive.”¹³

¹⁰ Teo, T.; Lim, V; Lai, R. (1998): Intrinsic and Extrinsic Motivation in Internet usage, p.27

¹¹ Wigfield, A.; Eccles, J. (2000): Expectancy–Value Theory of Achievement Motivation, p.73

¹² Wigfield, A.; Eccles, J. (2000): Expectancy–Value Theory of Achievement Motivation, p.72

¹³ Ledford Jr., G.; Gerhart, B.; Fang, M. (2013): Negative Effects of Extrinsic Rewards on Intrinsic Motivation: More Smoke Than Fire, p.1

4 Techniques of Gamification

Implementing gamification in your business concept can take place in a various different ways and techniques. In the following, some of these techniques will be discussed.

As gamification in a whole, the leaderboards refer to the principle that humans strive to compete with others and the desire for success and achievement as explained before. Leaderboards have always been a way of achieving status in the gaming world and they can be used in many different ways. If a company wants their employees to be more innovative and participate more in the company's development, they can implement a leaderboard where the number of suggestions each employee sends in is represented. The employee with the most suggestions is shown in the first place, the one with the second most suggestions on the second place and so on. The employees see that leaderboard all around the company what should motivate them to participate more to compete with the actual winner. This technique provides the possibility to directly compare one player with another.¹⁴

If the company rather wants to get more attention from the customers as they are introduction a new product to the market, gamification might appear in another way. Quizzes are an easy way to get customers spend time on the company's website. Furthermore, people not only love doing quizzes they also love to share them. According to BuzzSomo the average number of shares for one quiz is 1900 times.¹⁵ Therefore quizzes are a good tool to increase the number of visitors of the website and hence the brand knowledge of the customers.

Other famous techniques of gamification are reward-systems, badges, levels and points. Companies might rate the achievements each employee has within his job. With each achievement the employee generates points. The more points each employee has the higher is the level he reaches. At each level one gets rewards or badges. The reward-system might also work for itself. As soon as an employee achieves a predefined goal he will get a reward – in the form of money, awarding or something else.

The main challenge of gamification is the goal to generate new ideas and to keep the people motivated. "Although Series Games were not invented specialty for ideation, the three characteristics of Series Games such as simulation of reality, role-playing and support for faster collaboration seem to meet the requirements of ideation techniques for a collaborative process of idea generation."¹⁶ To generate new ideas, one must use knowledge as well as creativity to create a new thought and idea.¹⁷ All the steps that are required to create a new idea, whether individually or collectively, are supported by Serious Games. Those Serious Games present a more assisted learning process than do traditional creativity methodologies such as brainstorming, brain writing, collaborative sketching or turning

¹⁴ Tiehl, J.(2015): Nachhaltigkeit der Motivation in der Gamification p.4

¹⁵ Walsh,Steven(2015): Why Quizzes Are Content Marketing's Secret Weapon

¹⁶ Agogué M.; Levillain K.; Hooge S.(2015): Gamification of Creativity: Exploring the Usefulness of Serious Games for Ideation, p.417

¹⁷ Ward T.; Smith S.; Finke R. (1992): Creative Cognition

negatives into positives and changing the focus for problems, as the actors are more involved in the context of the situation which is mostly controlled by the organization.¹⁸

All in all, one must understand that gamification is all about motivation. The idea behind all these gamification techniques are to increase engagement and intrinsic motivation of the employees. The techniques are extrinsic tools a company uses to generate intrinsic motivation. It is hoped that gamification increases competition within the employees so they will be more productive. More productive employees generate more profit and profit is the survival of a company.

5 Examples

There are more and more companies using gamification techniques to increase the productivity of their employees by increasing their motivation. The following paragraph will analyze a company that currently uses various gamification techniques.

5.1 SAP

One company using a gamification technique is SAP, the market leader in enterprise application software. SAP tries to create a user network where SAP users help others if there are any questions. To make this kind of Question and Answer (Q&A) more attractive, they invented the so called *Karma credits*. By writing positive and helpful comments, which are accepted or got an up-vote, the users earn karma credits. The user consequently understand how their comments are perceived by other SAP users and therefore earn reputation and trust. A few years ago the karma credits each user had was public, however, SAP changed that so the user can only see its own number of credits. SAP introduced this new form to ensure quality over quantity.

But SAP creates new tools of gamification on their website. They want to introduce *Missions* and *Badges*. SAP defines a mission as “a virtual quest, challenging you to complete certain requirements to earn a badge. Requirements include actions like providing feedback on content, writing a blog post, answering a question, or being recognized as an outstanding quality contributor.”¹⁹ Once you completed a mission the user earns different badges, which are published on your SAP Universal Profile. This additional tool SAP wants to introduce shows the clear postponement from extrinsic to intrinsic motivation. The badges SAP gives the users create a high value for the user as he feels recognized and accomplished.

¹⁸ Agogué M.; Levillain K.; Hooge S.(2015): Gamification of Creativity: Exploring the Usefulness of Serious Games for Ideation, p.417

¹⁹ SAP website; <http://www.sap.com/community/about/reputation.what-s-coming-next.html> (available 23.12.2016)

Additionally SAP wants to go further than that. They want to soon introduce *Reputation Scores* as well as *Expertise Scores* for those who had an outstanding contribution to the SAP User Network. On their website they underline that “members who achieve it should be proud.”²⁰ This also emphasizes that SAP realized the importance of recognition and intrinsic motivation.

6 Evaluation

According to SAP the introduction of more and more intensive gamification methods lead to an increase in motivation of their members. However to measure motivation is not as easy as it seems to be. To be able to measure motivation SAP did surveys within their community. On their website they describe their procedure to get to the important information of how the gamification actually performs. At the beginning they defined motivation as “the engagement for the company, the willingness to do some extra work and to always orient on the company’s strategy”²¹. Without such a definition a measurement of motivation through surveys is not possible. However SAP did not mention any numbers which would prove real effects of the introduction of gamification methods.

Gamification – Does it lead to higher motivation? This question can only be answered in two parts.

Firstly, gamification *can* be a useful tool when it come to the generation of new methods to motivate employees. “Indeed, profiles involve each participant in a quick learning dynamic to manage the resources of their role and support participants’ involvement in eliciting and sharing original knowledge.”²² Furthermore, gamification enhances the interaction of a various number of stakeholders in a company which enables the identification of new actors and opinions.

Secondly, gamification is a good tool to enhance motivation of employees. The important thing is that the techniques used should not just be an extrinsic motivator. At first getting points or reaching a higher level in a game is attractive to people but for a sustainable increasing productivity in a company employees must be motivated from their inner self. To reach this level of motivation the employees must feel recognized and appreciated.

However it is difficult to measure motivation and therefore difficult to correctly evaluate the usefulness of gamification in terms of motivation. As shown in the example of SAP, the

²⁰ SAP website; <http://www.sap.com/community/about/reputation.what-s-coming-next.html> (available 23.12.2016)

²¹ SAP website;

<https://www.sapvirtualagency.com/FileExplorer/Partners/Horiel%20Syndication%20Documents/SFSF%20HCM/Deutsch/best-practices-eight-recommendations-engagement.pdf> (available 20.01.2017)

²² Agogué M.; Levillain K.; Hooge S.(2015): Gamification of Creativity: Exploring the Usefulness of Serious Games for Ideation, p.423

company explained detailed how they use gamification but never mentioned any tangible outcomes.

To put it in a nutshell, gamification can be a useful tool to motivate employees. Humans have the natural demand to compete with others and to be the best. Therefore, the constant monitoring and rating of the employees' performance can be useful. Nevertheless, the exact positive effects are not measured by many companies who are using gamification to motivate their employees. One reason for that is that motivation is difficult to measure and can be influenced by many different things. Therefore one cannot say that gamification by itself is useful to motivate employees as there has never been a fundamental research with presentable results. Furthermore, the permanent pressure of being the best employee can be dangerous. The probability of an increasing number of burn outs could be rising.

The important thing is that there is a better and proven possibility to increase the motivation and consequently the productivity of the employees. This possibility is to show them that their work is seen. The employees must feel accomplished and recognized so that they have an inner happiness and realized it is valuable what they do. A way to achieve this kind of recognition is shown in the example of SAP as they are now trying to concentrate more on showing their users that they are helpful and that their work has high quality. Therefore that is what effectively lead to higher motivation.

7 References

- Agogué M.; Levillain K.; Hooge S.(2015): Gamification of Creativity: Exploring the Usefulness of Serious Games for Ideation, p.417
- Deterding, S.; Dixon, D.; Khaled R. & Nacke L.; (2011): From Game Design Elements to Gamefulness - Defining "Gamification"
- Gartner, Inc (2011): Gartner Says By 2015, More Than 50 Percent of Organizations That Manage Innovation Processes Will Gamify Those Processes
- Groh, Fabian (2012): Gamification: State of the Art Definition and Utilization
- Huotari, Kai; Hamari, Juho: Defining Gamification – A Service Marketing Perspective, p.17 (22.12.16)
- Kapp, K.(2012): The Gamification of Learning and Instruction: Game-based Methods and Strategies for Training and Education, p.7
- Ledford Jr., G.; Gerhart, B.; Fang, M.(2013): Negative Effects of Extrinsic Rewards on Intrinsic Motivation: More Smoke Than Fire, p.1
- Salen,K.; Zimmermann, E.(2003): Rules of Play: Game Design Fundamentals.
- SAP website; <http://www.sap.com/community/about/reputation.what-s-coming-next.html> (available 23.12.2016)
- Teo,T.; Lim,V; Lai, R. (1998): Intrinsic and Extrinsic Motivation in Internet usage, p.27
- Terrill, B. (2008): My Coverage of Lobby of the Social Gaming Summit
- Tiehl, J.(2015): Nachhaltigkeit der Motivation in der Gamification p.3-4
- Walsh,Steven(2015): Why Quizzes Are Content Marketing's Secret Weapon
- Ward T.; Smith S.; Finke R. (1992): Creative Cognition
- Wigfield, A.; Eccles,J. (2000): Expectancy–Value Theory of Achievement Motivation, p.72-73

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