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HOW IS GAMIFICATION PERCEIVED IN HEALTH AND WELLNESS TECHNOLOGY COMPANIES: VIEWS FROM FOUR COMPANIES OF DIFFERENT SIZE

Completed Research

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Abstract

Technological development has facilitated new innovations in several fields, and the emergence of novel devices as well as software products and services is constant. Health and wellness is a field where the development of technology for various purposes has truly boosted. In the growing competition, companies are constantly seeking ways to better engage people with their offered products and services. One potential and increasingly used way to do this is gamification. However, even though the number of academic studies on gamification has increased, there is still relatively little research available on the perceptions of companies regarding the use of gamification in their offerings. In this study, we investigate the perceptions that companies operating in the field of health and wellness technology have regarding gamification and its use. The study is based on interviews conducted with four companies of different size. The study provides valuable new knowledge on the perceptions and use of gamification in companies operating in the health and wellness technology business. The findings indicate that the familiarity of gamification varies between companies, but gamification is seen to possess significant potential for engaging users to use the companies' products and services. In general, while the interviewed companies are aiming to develop and implement gamified features into their offerings, they do not posses a clear vision on how to actually do this. The findings are discussed and practical implications presented.

Keywords: Gamification, Health technology, Wellness technology, Companies, Interview.

1 Introduction

The constant development of technology has generated new innovations in several fields. These new innovations have lead to all kinds of novel products and services utilizing both devices and software. Health and wellness is a field where the development of different technology for various purposes has truly boosted and the competition in business is fierce. Companies are constantly seeking ways to make new people interested in their offered products and services, to engage the existing users more, and make the users more committed to their offerings. One potential and increasingly used way to make people more interested and engaged in software products and services is gamification, which can be defined as "*using a set of activities with the aim to implement game elements to non-game context*" (Kari et al., 2016, p.400).

As the interest towards gamification has increased in business, the number of academic studies concerning gamification has been on the rise as well during the past years in different domains (cf. Hamari et al., 2014; Hamari, Koivisto and Sarsa, 2014), including the health and wellness domain (cf. Hamari and Koivisto, 2015). Most of the research seems to be conducted from the users' perspective, while the perceptions of companies regarding the use of gamification in their software as well as other products and services have been little studied. These perceptions and their compatibility with the needs, wants, and expectations of the users is obviously critical in terms of the future success of the developed products and services and, therefore, it would be valuable to learn about how gamification is perceived by the technology developing companies focusing on health and wellness. In addition, as the majority of gamification projects have been predicted to fail (Harbert, 2014), it is important that the relevant persons in companies as well as the entrepreneurs receive advices and insights on gamification as well as how to employ it (Arnab et al., 2015).

The aim of this research is to shed light on the aforementioned research gap by investigating how the technology companies operating in the field of health and wellness perceive gamification. The main research question of the study is: How do health and wellness technology companies perceive gamification as well as its current and future use? To answer this question, we conducted interviews with four different sized companies from the health and wellness technology sector.

Our main research interest and focus is on health and wellness technology companies. Besides these companies with growing interest and importance to utilize gamification, the findings of the study can also pose indirect implications and benefits to other sectors of the society. Many of the companies working in the health and wellness technology sector are providing solutions for physical activity. Physical activity has numerous benefits to health and well-being, which are well established (e.g., Lee et al., 2012; Warburton, Nicol and Bredin, 2006). Thus, it is important to study how gamification is perceived and could be better utilized in this context – not just from the user perspective but also from the provider perspective.

The study is explorative in nature, meaning that the findings are presented and discussed at a descriptive level without reflecting them to any prior theoretical framework. Thus, also any *a priori* hypotheses on how different companies are expected to perceive gamification are not presented. This kind of approach suits well the qualitative nature of the study. The findings provide valuable information on how gamification is perceived, how it is used, and how it is planned to be used, for example, in health and wellness related technology and business.

The paper consists of six sections. After this introductory section, we present the concept of gamification in Section 2. The methodology we present in Section 3. In Section 4, we present the findings of the study and then discuss them and draw conclusions in Section 5. Finally, in Section 6, we consider the limitations of the study and potential paths for future research.

2 Gamification

Gamification, from its classical definition, refers to the design of software and hardware in non-game contexts using game design elements (Deterding et al., 2011). The goal of gamification is most often to make the user experience more playful and enjoyable and, thus, to motivate the user to behave in desired ways (Deterding et al., 2013). Recently, it has been suggested that when discussing gamification, there should be a division between the *process of gamification* and the *experience of gamification* (Kari et al., 2016). Kari et al. (2016, p.400) define the process of gamification as "*using a set of activities with the aim to implement game elements to non-game context*" and the experience of gamification as "*a use experience in non-game context that the user perceives as gameful*". The aim of the process of gamification is to generate more gameful and enjoyable user experiences and, thus, to motivate the user towards desired behaviours (Deterding et al., 2013; Kari et al., 2016). In other words, the process of gamification aims to generate an experience of gamification in the user (Kari et al., 2016).

In recent years, there has been a growing interest to use the process of gamification (Kari et al., 2016) in several different fields. Gamification has attracted growing interest, as it is generally seen as one potential factor to be utilized to trigger and maintain motivation of users to use the products and services of a company. Gamification can also be used in increasing brand awareness and loyalty, online user engagement, and innovation (Kankanhalli et al., 2012). As the popularity increases, the potential benefits of gamification are available to a growing number of companies. One of the fields with most interest towards utilizing gamification is the health and wellness technology sector.

There are various means how to directly gamify exercise applications (Zuckerman and Gal-Oz, 2014). Common means are related to elements such as scores, competition, and social influence. Many applications are also subjected to more indirect ways of gamification, some of which might not be identified as gamification by the user (Ziesemer, Müller and Silveira, 2013). Prior studies have suggested that gamification can have a positive motivational effect in general, but there are differences both between solutions and in individual level (e.g., Fitz-Walter, Tjondronegoro and Wyeth, 2012; Hamari, Koivisto and Sarsa, 2014). Previous research (Kari and Makkonen, 2014; Makkonen et al., 2012a; Makkonen et al., 2012b) has shown that there are varying reasons behind the use of different health and wellness technologies, which can be both hedonic and utilitarian.

As mentioned, the common purpose of gamification is to make the user experience more playful and enjoyable and, thus, to motivate the user to behave in desired ways (Deterding et al., 2013; Kari et al., 2016). Motivation is targeted by employing game elements, meaning that the objective is to utilize the positive elements of games in generating gameful experiences and, thus, to affect the motivation. Game dynamics have been shown to work as an important mechanism for increasing engagement in non-game contexts (Suh, Wagner and Liu, 2015), and gamification can be an effective strategy to influence user behaviour and the use of an application (Law, Kasirun and Gan, 2011).

3 Methodology

To collect and analyse the selected companies' views about gamification, we chose the qualitative approach. This approach was chosen because qualitative research aims to understand reality and especially its social and cultural context as well as to find new knowledge. One of the key benefits of qualitative research is that it also enables the researcher to see and understand the underlying contexts in which decisions are made (Myers, 2013).

We collected the data by using qualitative interviews because the aim was to understand phenomena from the point of view of the companies and to examine their perceptions of it. For this purpose, qualitative interviews are well suited (Myers, 2007). In addition, "*the qualitative interview is the most common and one of the most important data gathering tools in qualitative research*" (Myers and Newman, 2007, p.3). More specifically, we employed a semi-structured interview, which is the most

commonly used type of interview in qualitative research in information systems. In a semi-structured interview, there is usually some pre-defined structure that the interview follows, but the whole script is incomplete and leaves room to specify answers and redefine questions (Myers and Newman, 2007). This was also the case in our study. In planning and conducting the interviews, we followed relevant guidelines given for semi-structured interviews (Myers, 2013; Myers and Newman, 2007). These guidelines provided instructions regarding, for example, the preparation, introduction, conversation, and conclusion of the interview (Myers, 2013). Also, following these guidelines, we situated ourselves before the interview, aimed to minimise social dissonance, used mirroring in questions and answers, and were flexible to the interview and the interview situation at hand (Myers and Newman, 2007). These guidelines helped us to gain maximal benefit as well as to avoid the potential problems and pitfalls of semi-structured interviews, such as artificiality of the interview, lack of trust, constructing knowledge, or ambiguity of language (Myers and Newman, 2007).

Our study included one interview for each company. All the interviewed companies operated in the wellness sector with headquarters in Finland. In selecting the interviewed companies, we aimed to get four different sized companies that still share relevant similarities concerning the research aims. More precisely, we chose one from each of the following categories: a micro-size, a small-size, a medium-sized, and a large-size company, as defined by Eurostat (2014). This way, we aimed to maximize the depth and richness of the data. In addition, a certain criterion was used: the company had to operate (at least) in the wellness sector, the companies needed to have some products or services in their portfolio where they had used and could have used some elements of gamification, and the companies possessed a true motivation to participate in the study. The sample represents a good mixture of companies for comparing their perceptions:

- The first company is a micro-size enterprise with two employees. It operates domestically and produces game-like software for the end-users. It also does software development for few other companies. Number of interviewed persons: 1.
- The second company is a small-size enterprise with around 12 employees and growing. It operates both domestically and in Europe with plans to grow worldwide. It has its main focus on wellness related mobile software and a related web-service. Number of interviewed persons: 2.
- The third company is a medium-sized enterprise with over 60 employees and growing. It operates worldwide and offers solutions targeted, for example, at occupational healthcare and for world-class athletes and sports teams. Number of interviewed persons: 2.
- The fourth company is a large-size enterprise with over 400 employees. It operates worldwide and provides both device-based and software-based products, such as wearable sports computers, a mobile application, and a web-based community. Number of interviewed persons: 5.

For the interviews, we developed an interview script. The script included the opening, the introduction, key questions, and the closing, as suggested by Myers and Newman (2007). The key questions of the interviews are presented in Appendix A. The script was developed based on the research aims and general insights on gamification. It also included other questions regarding the subject, which are not analysed within this study.

The interviews were conducted in the beginning of 2016 by the authors. Three interviews were carried out face-to-face with the representatives of the company, whereas one company was interviewed via a videoconference system. Each company was asked to select as interviewees the persons who they believed to have the best overall understanding on gamification. The number of company representatives taking part in the interviews varied from one to five between the companies, totalling at ten interviewees. In the companies having more than one interviewee present, we conducted a group interview for all the persons at once. On average, the interviews lasted 82 minutes. All the interviews were recorded

and transcribed for relevant parts (in our native language). The analysis was based on the transcribed recordings and additional notes made by the interviewers.

In conducting our analysis, we used previous guidelines for thematic analysis (Braun and Clarke, 2006; Patton, 2002). However, as suggested (Braun and Clarke, 2006; Patton, 2002), we applied the guidelines flexibly to fit the research aim and the data. The manner of analysis was as follows: We began the analysis by familiarizing ourselves with the data (transcribed recordings and notes) and marking all the interesting features in it. We continued by first searching for recurring themes that were then reviewed in relation to the data. The themes were also defined and named. Finally, a report was produced. Also, as advised by Braun and Clarke (2006), the analysis process itself was a recursive one instead of a linear phase-to-phase process, meaning that we moved back and forth between the different phases of the analysis. We used the Microsoft Excel program to support the analysis.

4 Findings

Below, we present the findings of the interviews and analysis categorized in themes. The themes are based on the used interview script and presented in the same order as in the script.

4.1 Utilization of gamification

Two of the four companies perceived that using gamification is not very common in health and wellness related products and services, whereas the largest company perceived it as being very common. The medium-sized company saw that the commonness varies between target groups: from very common in products and services targeted for general audience to very uncommon in products and services targeted for athletes. This could be because of the differences in how gamification was actually perceived. All the companies shared a common view that gamification is something that truly uses game mechanics and aims to influence user behaviour, and some did not consider the so-called "shallow gamification" (cf. Lieberoth, 2015) to be gamification at all. Rather, all the companies shared the view that gamification is generally used in quite ineffective ways and that it poses a lot more potential than is currently realized.

The use of gamification in the interviewed companies' own products and services was perceived to be at a rather low level, with the exception of the micro-size company who had developed an exercising game (i.e., exergame) (cf. Kari and Makkonen, 2014) in their portfolio. All the companies had used some elements of gamification, but mainly not for the sake of gamification, but rather just as a feature that has gamified elements in itself.

All the companies perceived that gamification is something that can be, when properly introduced, very effective. All planned to increase the use of gamification in their products and services in the future. However, generally, they were not actively seeking to find new gamified solutions and did not have a clear vision on how they could best implement gamified features into their products and services. They realized the need to increase their understanding or to use an outside consultant or collaborator regarding the use of gamification.

The main goals of using gamification in the future were related to making their products and services more known to the general public by encouraging users to share their activities and to commit users to the products and services by increasing their motivation to use them.

When asked about the users and the usage of their products and services, perhaps a bit surprisingly, the companies confessed that they do not posses a very clear view on how their products and services are actually used by different user groups. Also, the effect of gamified elements on the usage was more or less a mystery to the companies.

4.2 General perceptions of gamification

Regarding the use of gamification across all the fields of business, the companies did not share any common views of a specific field where gamification would have been best utilized. The answers varied from learning and teaching to different loyalty programs. Interestingly, only the micro-size company even mentioned health and wellness, their own field, as an example. When asked the same question regarding their own field, the responses also varied quite a lot, but there was a common tendency that it is more the software and the services, not the devices, that have the most sophisticated gamified features. The companies were also unable to name any specific fields where gamification would play a particularly important role at the moment.

The companies' views on their strengths and weaknesses regarding gamification varied based on their products and services. The largest company saw their extensive data from the users of their community as something that would provide a valuable base for gamification activities. The small-size company saw their software platform as something that would be well suitable to the introduction of different gamified solutions. The medium-sized company did not see themselves as very competent with gamification, but realized that they had one specific service that could potentially benefit from gamifying. All the companies shared the weakness that they did not really know how they could actually use these strengths and gamification together. There was a lack of clear vision on how they could best use these strengths. The micro-size company believed that they posses a better understanding of the use of gamification than other companies in the same field, but saw their very small size and the lack of resources as a weakness.

The companies had different views on what the most influential elements of gamification are. However, offering some kind of rewards was seen as important throughout the companies. Regarding the rewards, all of the companies shared a view that to be able to influence behaviour on a longer-term, the rewards should be something tangible and meaningful and not, for example, just "meaningless" virtual badges or trophies. The role of target groups also came up, as it was generally seen that the effectiveness of a certain gamified element also depends on the user.

The biggest perceived threats of gamification were related to the vast variety of different kinds of users. As users perceive different gamified elements differently based on their own preferences, some type of gamification can have either a positive or a negative influence on the user. For example, if the user does not have a competitive spirit and feels negatively about competition and comparison to others, a solution gamified through competition would most likely have a very negative effect on the user's perceptions. Gamification was also seen to possibly foster some unexpected and unwanted behaviours, depending on the user.

Regarding the trends of health and wellness sector, few aspects rose up. Technological development was seen to facilitate the production of new kinds of devices and software that allow to measure and to interact with all new aspect of health. The improvement of health and well-being was also seen to move more from the societal level to the personal level, with different kinds of self-tracking solutions continuing to become more common. Overall, personal well-being was seen as a growing trend now and in the future. Also, the roles of real-time tracking and self-measurement as well as the role of social communities were seen to increase. However, regarding the role of gamification in health and wellness sector, the companies could not specify any prevailing gamification trends above others.

4.3 Users influenced by gamification

The general perception was that the most important user segments of health and wellness products and services in general are among those who are active in their everyday life and interested in their well-being. The most important user groups for the companies themselves varied from this general view to both directions. On one end of the focus were the very active individuals or athletes. On the other end of the focus were those who are less active or even passive in their everyday life.

The user group that could be influenced the most by gamification was believed to be children and young adults by one company and all the "less active" individuals by another, whereas two companies believed that with the right kind of gamification all user groups could be influenced in some way. The user group that could be influenced the least with gamification was believed to be those who already are physically very active. For them, gamification might even work negatively. So, rather than their demographic segment, personal variables and patterns of behaviour of users were seen as more important determinants of how gamification could influence them.

It was a general belief that the variety of different user groups of health and wellness devices and software will continue to spread in the future. More and more people were believed to adopt at least some of these technologies.

4.4 The effectiveness of gamification

In general, the companies had conducted rather little research on the effectiveness of gamification. They did not have a clear view on how different elements of gamification had influenced their users or how their users felt about those. At best, a company possessed some quantitative data about the usage and could point out how the introduction of some new gamified campaigns or features had influenced the usage. However, in general, the companies' views on the effectiveness of gamification were based on their beliefs and received feedback rather than on actual research.

All the companies believed that gamification could be an effective way, for example, to wake interest towards their products and services or to make users more interested in their own health and well-being. In general, the overall perception of the companies was quite positive in regards to the effectiveness of gamification. Gamification was seen as an effective way to influence users and usage – when conducted properly.

4.5 The future of gamification

There was a shared view by the companies about an increasing market potential: As measuring different aspects of health and well-being are becoming more common, also the use of different health and wellness products and services will boom and become more important in the future. Gamification was seen to have an important role in this, as all the companies believed that gamification is going to be used more in the future and there will be more gamified solutions among the health and wellness products and services. The companies also believed that the role of software is going to increase. The largest of the companies, who also manufacture their own physical devices, even mentioned that, in the future, they aim to provide value to their customers more through software and services and less through devices. One interesting notion was that all the companies felt at some level that the opening of software application interfaces would become more common. While there exists a growing number of different measuring devices and software, it becomes more difficult to provide an all-in-one solution for the user. Therefore, the importance of making your own software work together with others' will increase.

When asked about the possible future trends or changes that could significantly impact their operations, the companies believed that the rising interest towards well-being and measuring it with technology will increase the size of their market. Also, potentially unexpected or disruptive changes in technology use were seen as something that might affect the industry significantly, for example, if a new innovation would replace the use of an existing one. One aspect that came up and was seen as highly important was the data. Possible changes in users' perceived data privacy could affect how they are willing to share their data, as the health data can often be highly personal and sensitive. Regarding this, there was also a concern that users would become aware of how valuable their data is to the companies. If people would stop giving away their data for free and start bargaining for it, the impact could be significant – not just on health and wellness sector but on other business sectors as well. Al-

so, major changes in the laws regarding data collection, use, storage, and privacy could impact the companies' operations.

In general, the role of software and gamification was seen to increase in the future and the companies planned to utilize it more, but it was not seen as something that would significantly impact their business in the near future.

5 Discussion and Conclusions

Plain technology in the form of software or monitoring devices alone is found not to motivate users to exercise (Moilanen, Salo and Frank, 2014). Gamification has attracted growing interest as it is generally seen as one potential factor to be utilized to trigger and maintain motivation of users to use the products and services of a company. There exist studies on gamification and its mechanics (cf. Hamari et al., 2014; Hamari, Koivisto and Sarsa, 2014), but studies on the perceptions of the companies regarding the use of gamification in their products and services are lacking. The aim of this study was to explore the perceptions that health and wellness technology companies have regarding gamification and its use. The main research question of the study was: How do health and wellness technology companies perceive gamification as well as its current and future use? The study was conducted as a qualitative interview study with four companies of different size: a micro-size, a small-size, a medium-sized, and a large-size company.

The findings of the study show that the familiarity with gamification varies between companies and the size of a company does not directly indicate how familiar a company is with gamification. Also, the utilization of gamification in their provided products and services is not uniform among companies. In general, the utilization of gamification still seems to be in its infancy, but it is seen to possess significant potential for engaging users to use companies' products and services. In the wellness and health sector, the increasing amount of data resulting from the rising trend of self-measurement and self-tracking add to this potential. Therefore, technology companies operating in this sector should now concentrate on how to turn this vast amount of data into user value – gamification may very well help in this task.

The forces inhibiting the more extensive utilization of gamification seem to stem from two main sources. On one hand, many companies admit that they posses a relatively poor general understanding on the usage of their provided products and services by different user groups. This obviously makes it very difficult for them to analytically promote the user engagement towards these products and services either through gamification or through any other means for that matter. Thus, gamification should not be seen as a sort of "magic bullet", which can be used to produce more engaged users without really putting effort into understanding how people are actually using the provided products and services and why. On the contrary, a thorough understanding on users and user behaviour can be seen as an essential and necessary prerequisite for efficient gamification efforts that go beyond the level of so called "shallow gamification" (cf. Lieberoth, 2015) and actually aid in capitalising this understanding as promoted user engagement.

One the other hand, many companies also seem to lack a concrete understanding on what gamification truly means in their respective business context. For example, they do not possess a clear vision on which kind of game elements would result in the experiences of gamification that are most effective for their business and through what kind of processes of gamification these game elements could most efficiently be implemented into their provided products and services. Thus, there is a need for companies to promote their understanding on not only their users and user behaviour but also gamification itself, either through internal competency building or though external consultation and collaboration. However, what makes this task a difficult one, is the novelty of the concept. That is, although gamification seems to be the "buzzword" of the day, there is relatively little actual research available on both the experiences and processes of gamification, let alone concrete tools or frameworks that would assist

in the design and implementation of the game elements into the companies' products and services in a manner which considers the context-specific aspects of their respective business context and environment. Therefore, more research on these topics is desperately needed.

The most potential user group of health and wellness technology seems to be the user segment that is already active in their everyday life and interested in their well-being, while the most potential target group for health and wellness technology gamification seems to be the user segment that is less active. Thus, especially in the health and wellness sector, gamification has a significant potential to reach new customer segments. However, also in this sector, companies are still missing concrete evidence on the effects of gamification on users and user behaviour and, in the end, on their health and well-being. Therefore, we recommend companies operating in this sector to conduct more research on how the users of their provided products and services actually perceive the different aspects of gamification, and then apply these findings when deciding which gamification mechanisms or game elements to use. This would most probably promote the likelihood of success in employing gamification.

As companies gain a better and better understanding on both the experience of gamification and the process of gamification, the utilization of gamification can be expected to become more and more extensive and, thus, a critical aspect driving the future development of products and services. It seems that the increasing importance of gamification in the future will also be visible in the companies' focus, which is shifting away from hardware to more and more towards software development, because this is where gamification mechanisms and game elements are mainly implemented.

Overall, the findings of this study provide valuable new knowledge on the perceptions and use of gamification especially in companies operating in the health and wellness technology business. The findings benefit both the research community and the industry. We encourage companies operating in the health and wellness technology industry to utilize these findings to promote the compatibility of their offerings with the needs, wants, and expectations of the users and to boost their business with the help of gamification. Researchers can utilize the insights from this study in planning, preparing, and conducting future studies on health and wellness technology business and gamification.

6 Limitations and Future Research

There are two main limitations in the study. First, although providing a great amount of in-depth information, the sample of the study, consisting only of four companies, obviously limits the generalizability of the findings. Thus, future research could continue from this by adding other companies' interviews to the data set of this study. The second limitation of this study arises from the general limitations of qualitative interviews. However, in planning and conducting the interviews, we followed relevant guidelines given for semi-structured interviews (Myers, 2013; Myers and Newman, 2007) and also used previous guidelines for their analysis (Braun and Clarke, 2006; Patton, 2002). Following these guidelines helped us to gain maximal benefit from using a semi-structured interview as well as to avoid the potential problems and pitfalls, such as artificiality of the interview, lack of trust, constructing knowledge, or ambiguity of language (Myers and Newman, 2007).

The findings of the study also wake potential paths for future research. First, it would be interesting to interview the same or similar companies in the future to see how their views have realized in the field. Second, the target companies of a future study could be limited to organizations operating in an even more specific area. Third, it would be interesting to interview the users of gamified products and services in order to find out whether some companies are more successful than others because they use gamification. Fourth, conducting a study investigating similar issues from the users' perspective and then comparing the findings with those of this study would provide an interesting view on how the perceptions of gamification vary between companies and users.

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Appendix A: The Key Questions of the Interviews

Company's perceptions
How common is gamification in health and wellness related products and services?
In which ways are you using gamification at the moment? In products? In services?
What are your goals regarding the use of gamification now and in the future?
What kind of experiences do you have regarding the usage of your products and services? Who are the users? How are they using? Special aspects of use? What is the role of gamification?

Gamification
In which field (generally) is gamification best utilized?

How do you see the role of gamification in technological products and services?
What do you consider to be the most important gamified products and services in the market at the moment?
Compared to other companies in your field, how is gamification taken into account in your company? Strengths? Weaknesses?
What are the most important directions regarding gamification for you in the future?
What do you consider to be the most effective ways to gamify or the most effective elements of gamification?

Gamification in the field of health and wellness
What do you consider to be the best gamified products and services there are in the health and wellness market?
What do you consider to be the current trends in health and wellness software business? And what is the role of gamification in this?
Who do you consider to be the most innovative actors in your field regarding the use of gamification?
What do you think will be the killer applications in the future? And what is the role of gamification in this?
Do you think there are some threats in using gamification?
What is the driving force behind your product and software development? Customers? Visual appearance? Technology? Gamification?

The user
What are the most important user groups of health and wellness products and services? In general? For you?
Which user group could be influenced the most with gamification?
Which user group could be influenced the least with gamification?
What kind of changes has there been in the user groups during the past 5-10 years?
What kind of changes do you believe there will be in the user groups during the next 5-10 years?
What are the most important reasons for users to use health and wellness products and services?

Effectiveness
How do you believe that gamification influences the users' use of health and wellness products and services?
How do you believe that gamification of health and wellness products and services influences

the wellness choices of the users?
What ways of gamification do you see as the most influential regarding products and services?
Have you studied the relationship between gamification and the usage of your products and services?
Have you studied the relationship between gamification and motivation to be physically active?

Future
How do you see the future of (gamified) health and wellness products and services?
How do you see the evolution of gamification? Will there be more or less gamified solutions in the future?
Can you see some future trends or changes that will significantly impact your company? What about impacting the use of gamification?