
Including Non-Users and Public Perception in Future Gamification Research

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Abstract

Current empirical research on gamification has mainly focused on individual's performance and motivation. However, there are a number of social and ethical aspects, which should be considered in future research. The workshop "Fictional Game Elements: Critical Perspectives on Gamification Design" would give us the possibility to outline possible side-effects of these social and cultural aspects.

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Introduction

During the last two years I have been working on my master's thesis examining the effects of different types of gamification on users [2, 3]. While research is starting to reveal the underlying psychological mechanisms of gamification on individuals, I have noticed that there are a number of cultural and ethical

issues related to gamification, which should be looked into so that we get an even better understanding on how gamification works. In this paper I will highlight two points concerning gamifications' side-effects in a social and cultural setting which could help to broaden future research.

Gamification and Intrinsic Motivation

Most often self-determination theory [13] is used to explain how gamification works. According to self-determination theory intrinsic motivation (behaviour which one pursues because it is enjoyable or interesting) leads to higher quality and extent of people's investment into a task. Intrinsic motivation can be increased by satisfying the psychological need for competence and autonomy. It is assumed that feedback (such as game elements), if perceived as informational, can increase competence, and therefore increase, intrinsic motivation. However, if the feedback is perceived as controlling perceived autonomy decreases, and therefore intrinsic motivation decreases. Hence, I have focused my research in the emerging body of empirical research (e.g., [4, 9] on how gamification affects intrinsic motivation. In my first research paper [2] I highlighted which game mechanics from a self-determination perspective are expected to increase competence (small tasks, positive informational feedback, informational wording) and autonomy (choice between different levels, choice to receive feedback, choice of avatars) and therefore should lead to higher intrinsic motivation. Furthermore, I pointed out that identical game elements (e.g., points) are expected to have different effects on intrinsic motivation depending if they are embedded in a controlling or informational style of feedback. More recently, I showed in an experimental study that a

gamified application does not necessarily lead to higher motivation than a nongamified application [3]. One reason for this finding could be that the feedback was not informational enough [3]. Hence, we are currently conducting a study with different kinds of (evaluative, descriptive and comparative) feedbacks, which should help us to get a more nuanced understanding of how gamification affects competence and intrinsic motivation. In our upcoming studies, however, we would like to focus our research approach from effects on individuals' motivation to a more holistic approach by including different domains and gamification's side effects. I am convinced that this workshop would help me to get further insights in what I should take into considerations in our future work.

Keeping Non-Users in mind

What has been disregarded by research until now is how the interaction between a user and gamified application affects other users' need satisfactions and intrinsic motivation, particularly those using it without gamification, and how organisations implementing gamification are perceived by the public.

The assumption in current studies (for an overview see [14]) is that generally users of a gamified task perform better due to higher intrinsic motivation. Naturally, this implies that in the short term users not using the gamified system would be less intrinsic motivated than those using a gamified system. However, these experimental studies do not take to account the real life situation in which a user knows about the gamified system but does not use it. If a user knows about the gamified version of an application further effects can be expected.

If the default setting in a system is the nongamified version (e.g., one has to register to use version), it may happen that only people who have a certain degree of intrinsic motivation or are tech-savvy will register. According to Hwang [5] intrinsic motivation is a crucial antecedent of accepting new technologies. Hence, users willing to accept a gamified application might already be more intrinsically motivated than those unwilling to use it. If the gamified application additionally boosts intrinsic motivation it could lead to an invertible performance gap between users of gamified application and nonusers. Especially in fields in which people usually can choose between a gamified application and nongamified system (e.g., in a learning environment) and performance is important this could lead to ethical issues. Therefore, we should ask ourselves how we could make sure that gamification does not discriminate anybody.

Including Public Perception

The ethical discussion if gamification is "exploitationware" has been ongoing for a while [1, 14]. Bogost [1] argues that gamification is "exploitationware" because real incentives are replaced by fictional ones. Seaborn and Fels [14] claims that this assumption is only applicable if gamification focuses on extrinsic motivation (being motivated by a separable outcome) and not intrinsic motivation. Firstly, it is questionable that solely because users' are motivated intrinsically and not extrinsically a product cannot be described as "exploitationware". I argue, that if game elements are needed to get people intrinsically motivated in the first place the application might be equally manipulative and ethically questionable as extrinsic motivators. While using a gamified application, users will not be able to distinguish if they are

motivated by the meaning of the task or if the additional game elements make them believe that they are motivated by the task. Therefore, game elements might undermine users' free will of deciding if they sincerely want to do a task for its own sake or not.

Furthermore, when outlining future scenarios of gamification, we should take into consideration that public perception might rather focus on the task and the company than the individual's motivation when deciding if a task is "exploitationware" or not.

For example, if a citizen science project (e.g., Phyllo [6]) uses game mechanics to motivate people to do something good, one can assume that there will not be a public outcry. This might be quite different if big corporations use gamification to outsource specific tasks they do not have the capacity to do themselves. E.g., YouTube is currently using game elements to encourage registered users to perform tasks such as adding subtitles and flagging videos. In return users can gain points, reach different levels, which will enable them to get previews of new products and contact YouTube staff directly. Their effort to get new users for their "YouTube Heroes" system might have backlashed as most viewers of their introduction video, immediately, without knowing about the actual details of the system, perceived it negatively as they saw it as "exploitationware" and were concerned that their autonomy as users would be violated [7, 10, 11, 12].

My assumption is that similar to digital games, gamified applications can be shared or rejected with other people, therefore gamification should not only be investigated in isolation, but in its social and cultural context [8]. Therefore, future studies should consider

the side effects of the cultural setting when examining gamification.

Conclusion

Participating in the Workshop "Critical Perspectives on Gamification Design" would give me the possibility to get a better understanding of further cultural effects gamification could have on individuals and what we should keep in mind when examining those in the future.

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