

# Important game values in internal gamification

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## ABSTRACT

This short paper reviews recent literature on internal gamification, or one that is applied in work context. We examined relevant theories on topic and argued that combining clear goals, extrinsic rewards and social comparison will create value for the users, thus increasing the engagement. Also, relevant papers implementing gamification were reviewed, and we concluded that implementing the mentioned above game mechanics will increase the chance of success of a gamified platform.

## Keywords

Gamification, goal setting, social comparison, extrinsic rewards

## 1. INTRODUCTION

In recent years the concept of Gamification emerged as a means to increase user motivation, engagement and increase productivity[8] or other behavioural outcome in non-game context. It has been successfully implemented in various domains such as, education[7], innovation/idea generation[15], health[14], e-commerce[11], and had positive impact on user activity. However, the concept is not new, in 1930s the Stankhovism movement[4,16] in the former soviet union used the same principles, like social competition, extrinsic awards, and clear goals to significantly increase labour productivity[16]. Strangely, only in the recent years capitalist countries have noticed that gamification can motivate and engage users in utilitarian tasks or activities.

Gamification is defined as “the use of game design elements in non-game contexts.”[8] by Detering et al. Other definition but in a service marketing perspective was suggested by Hamari and Huotari: “a process of enhancing a service with affordances for gameful experiences in order to support user’s overall value creation” [15]. They suggest that the focus should be on the customer experience regardless of the type of service the company is offering.

Werbach[23] divides gamification in three main categories:

*External gamification* is aimed at improving customer engagement and loyalty, and giving more value to the service outside of the company.

*Internal gamification* seeks to improve employee productivity, contributions, and motivation inside the company.

*Behaviour change gamification* motivates individuals to achieve personal goals, such as losing weight or decreasing energy consumption.

In this paper we review only internal gamification case studies that were conducted in the enterprise service sector. Service sector constitutes any economic activity in business that is not producing a tangible product, only providing a service. Also, the education sector is out of the scope of work because it includes considerable amount of case studies which should be viewed separately from business oriented services.

Only recently released articles will be reviewed, from 2012 to 2015, in order to get the latest information about the trending topic. The study goal is to prove the following hypothesis: (1) gamification should include **clear goals, extrinsic rewards and social comparison**, in order to drive more user engagement and create value.

## 2. THEORETICAL UNDERPINNINGS

Generally, many theories suggest that gamification should yield positive results when implemented. Ryan and Deci[5,6] distinguished between two types of motivations: extrinsic and intrinsic. When individuals are motivated to complete certain task because they perceive internal value of it like, enjoyment, pleasure or other internal desire, the motivation is intrinsic. When individual is motivated to earn or avoid losing something, tangible or not, then the motivation is extrinsic. Both, motives lead to certain goal-oriented behaviours, physiological responses, and self-reported feelings. Gamification very well utilizes motivations, for example, earning points incites extrinsic motivation to earn a virtual good. However, to be intrinsically motivated users have to feel pleasure or perceive value from the gamified system.

Salen and Zimmerman[19] define clear goals as a vital part of a gamified system and they classify them as game mechanic. It has been found that they have motivated the users even if the goals were artificial [17].

Furthermore, social comparison theory[9] suggest that users compare their achievements to others, in order to benchmark themselves, and as a result of that their motivation increases. Based on it, other theories are developed like *social proof theory*[2,3]. Basically, it states that individuals are more likely to participate or take action in certain task if they perceive others are also engaged in. Consequently, allowing social comparison, and letting the users know that others are using the particular service should lead to higher engagement and motivation.

Based on the theory reviewed in this section, it can be proposed that if a service has to be gamified it should incorporate extrinsic awards, social recognition and immediate feedback.

### 3. DISCUSSION AND CONCLUSION

The concept of gamification emerged in recent years and due to its novelty, the existing literature is still scarce. However, new articles and books start to appear more frequently than before, trying to gain support and understanding about the concept. Recent literature review of empirical studies of gamification[13], summarized 24 gamification implementations case studies in various domains. Indeed, it was found that in most cases the implementation of gamification yielded positive outcomes. Bulk of the reviewed literature in this paper supports the hypothesis that using gamification tactics (social comparison, clear goals and extrinsic rewards) will increase user activity[11,12,18,21,22]. Indeed the prevailing view is that gamification could be successfully implemented in the service sector. However, Sigala[21] states that "...gamification impacts are influenced by the context of its implementation" and "...attitude and personality may influence and/or moderate user outcomes". Hamari[12] agrees with both statements and suggests "...future research could also consider the moderating role of, for example, personality differences and player types on the use and experiences of gamification initiative.". Also, Thom et al[22] found negative impact of user engagement when game mechanics were removed from the researched service which further support the argument that gamification should be used in service industry.

In conclusion, due to the low amount of literature reviewed, it cannot be concluded that the hypothesis here is proven, but it can be suggested that when implementing social comparison, clear goals and extrinsic rewards gamification has positive impacts because when all three game dynamics were incorporated in the service system, a positive outcomes were observed. This suggests that enterprise should include gamification in their services, if they want to create value for their service and increase engagement.

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## 5. Appendix

| Ref  | Name of article   | Year | Platform studied                  | Supports social comparison | Clear goals             | Supports Extrinsic rewards | Outcome  | Iteration |
|------|---|------|-----------------------------------|----------------------------|-------------------------|----------------------------|----------|-----------|
| [1]  | Gamification of a project management system   | 2014 | Product management system         | not significant results    | not significant results | not significant results    | None     | No        |
| [17] | Gamification applied in affiliate marketing. Case study of 2Parale                    | 2013 | Affiliate marketing website       | yes                        | yes                     | yes                        | Positive | Yes       |
| [10] | Corporate Wiki Conduct: a study of organizational influences, emotion, and motivation | 2012 | Enterprise wiki                   | No information             | No Information          | No information             | None     | No        |
| [21] | It was a bit of r: gamification of version control                                    | 2012 | Github version control            | Yes                        | No                      | Yes                        | Mixed    | No        |
| [22] | Removing gamification from an Enterprise SNS  | 2012 | Enterprise social network service | Yes                        | Yes                     | Yes                        | Positive | No        |