

Chapter 91

The Role of Mechanics in Gamification: An Interdisciplinary Perspective

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ABSTRACT

With regard to the contemporary discussion of gamifying processes in various domains, it is obvious that there exists a naive notion that simply adding leaderboards/pins/points/badges would lead to success. Even though other instances of gamification mechanics could actually perform better. The literature has not yet managed to prove whether different domains require different mechanics in order to impact on engagement and motivation. To address these critical issues, a literature review was conducted across six domains that examined game mechanics, including their uniqueness for gamification research. Findings show a myriad of mechanics with different sharing properties, which are more or less domain-congruent. These mechanics can be separated into four levels: general, mostly similar, partly similar and unique. The findings enable a better understanding of how to employ situation-congruent mechanics to a given context, which is important for both research and practice.

DOI: 10.4018/978-1-6684-7589-8.ch091

INTRODUCTION

Playing games has always aroused our interest and engagement (Huotari & Hamari, 2017). Games can be joyful recreation or they can be a challenge or a way to attain an objective. People have played and participated in games since prehistoric times (e.g. senet and mehen in ancient Egypt) and still do so (Smith, 2010). Furthermore, people want to be rewarded for their efforts. A reward can express itself in many ways; it can for example be an applause, a pin, a badge, salary or higher social status. It is clear that engagement is evoked by intrinsic and extrinsic rewards (Johansson & Götestam, 2004). Motivating and engaging people are important not only for business outcomes, but also for education and healthcare (Dichev & Dicheva, 2017; Pedreira, García, Brisaboa, & Piattini, 2015; Sardi, Idri, & Fernández-Alemán, 2017; Seaborn & Fels, 2015).

There is a reoccurring set of gamification mechanics that are frequently mentioned across different disciplines (Seaborn & Fels, 2015). The three most common ones are badges, points and leaderboards and these have become standard concepts in the context of gamification (see Harwood & Garry, 2015; Lucassen & Jansen, 2014; Seaborn & Fels, 2015; Shang & Lin, 2013). However, as pointed out by Burke (2016), it would be a mistake to believe that these devices are the only means of measuring success.

Depending on the context, it can be assumed that the type of outcomes will differ. For instance, employing gamified mechanics in a learning context aims to encourage students to perform better in learning tasks (Dichev & Dicheva, 2017), in contrast to marketing activities that seek to impact brand loyalty and / or consumer behaviors (Harwood & Garry, 2015). Hence, it would be naive to think that all mechanics are likewise appropriate for all domains. Dale (2014, p. 85) emphasizes the danger of applying the notion of one for all, all for one: “Good gamification design should be user-centric and not mechanism-centric.” Swan (2012) suggests that people are differently susceptible to gamification mechanics, e.g. younger people and those who are familiar with games are more likely to be influenced by it (Hamari, 2013). However, in spite of these discussions, there is still very little research that focuses on the differences among domains.

Despite the fact that several conducted reviews on gamification (Dichev & Dicheva, 2017; Pedreira et al., 2015; Sardi et al., 2017; Seaborn & Fels, 2015) have shown a variety of research contexts, no clear evidence has emerged as to whether different domains require different mechanics in order to impact on engagement and motivation. While it seems reasonable that not all contexts can employ pins, points, leaderboards or badges, there has been an absence of research about how mechanics are structured, overlap and complement each other among different domains. This is still unexplored and would provide a unique perspective. Both researchers and practitioners would benefit from the findings of such research, enabling them to better understand and employ situation-congruent mechanics that are appropriate to the given context.. Firms that fail to recognize that gamified mechanics are context-congruent risk falling into what Burke (2016) states is a classic mistake when employing gamification in organizations. Ignoring these issues becomes troublesome, as the bulk of literature shows that the outcomes of gamification differ depending on whether it is a service (Conaway & Garay, 2014) or a learning activity (Dichev & Dicheva, 2017).

Thus, it is of interest to see which game mechanics are suitable for a particular domain and which domains have game mechanics. At the same time, there may be same types of game mechanics in several domains. If a categorization of game mechanics is possible, a clear structure can be created. To enable such a categorization, previous research on game mechanics can be presented as a basis and this is the

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