

## Chapter 8

# Gamification in E-Commerce: Enhancing Digital Customer Engagement Through Game Elements

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### ABSTRACT

*The gamification term, derived from the game concept, is the use of game-design elements (e.g., points, badges, levels, and leaderboards) in non-game contexts, often with the purpose of motivating and directing individuals' certain behaviors to achieve specific goals and outcomes. The contexts in which gamification is being researched and implemented include education, health, marketing, human resources, social networks, digital platforms, etc. Many studies conducted in various domains tried to understand and explain how gamification can influence or foster individuals' motivation to conduct goal-directed behavior digitally. In most of these conducted studies, significant impact of gamification on human behavior has been observed and proved. By presenting academic findings from literature and discussing real-world implementation examples from the relevant domain, this study assesses the role of digital gamification in e-commerce domain. This chapter shows how various digital game design elements can influence consumer behavior in different e-commerce platforms.*

### GAMIFICATION CONCEPT

Humans have been playing games for thousands of years. Games are one of the oldest forms of human social interaction. The relevant literature includes various definitions of the game. Game is defined as a system in which players engage in an artificial conflict, defined by rules, which results in a quantifiable outcome (Salen and Zimmerman, 2004). All games have one or many of the following features: rules; structure, voluntary play, player effort, player investment, quantifiable outcomes, conflict, resolution, etc. (Juul, 2003; Seaborn and Fels, 2015). Two related but not exactly the same concepts game and play are being used interchangeable in many contexts. In game studies, the distinction between game and

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play is usually tied back to the concepts of *paidia* and *ludus* which have been put forward by Caillois (2001). Caillois (2001) placed the two complementary terms *paidia* and *ludus* at opposite ends of a play continuum. *Paidia* (i.e., playing) is the main power of improvisation, expressiveness, spontaneity, and joy which is usually present in children's free play. On the other hand, *Ludus* (i.e., gaming) consists of formal play including rules and arbitrary obstacles that defines winners and losers and commonly manifests itself in board games and video games. The play is broader than the game and encompasses it. While playing refers to a more free form, expressive, improvisational meanings and behaviors, gaming refers to playing which is structured by rules and competitive strife toward goals (Salen and Zimmerman, 2004).

The term gamification derived from the game concept. This term was used for the first time in 2002 by Nick Pelling, a British programmer and video game designer for digital products. However, gamification term did not become popular and mainstream until 2010. In the relevant literature, there is no universal definition of gamification. However, the gamification definition of Deterding, Dixon, Khaled, & Nacke (2011a) is the one that is widely accepted and used. According to Deterding et al. (2011a) gamification is the use of game design elements in non-game contexts. The central idea behind this innovative technique is to utilize game-design elements (e.g., points, badges, levels, achievements, and leaderboards) in real-world contexts (e.g., business, education, etc.), with the goal of directing and motivating certain behaviors of individuals digitally. That is, gamification utilizes game mechanics for non-entertainment purposes. This technique is more about motivating people and encouraging them to show the behavior you want. Gamification and game are different in terms of the purpose of play. Main focuses of gamification are changing players' behavior, digital engagement with their environment towards achieving meaningful interaction and engagement and potentially achieve rewards. However, games focus more on entertainment and pleasure (Xu, Buhalis, & Weber, 2017). Gamification applies elements of "gamefulness", "gameful interaction", and "gameful design" for a specific intention (Deterding et al., 2011a). Gamefulness refers to the experiential and behavioral quality of playing; gameful interaction refers to the objects, tools and contexts that bring about the experience of gamefulness, and gameful design refers to the designing for gamefulness by utilizing game design elements. Gamification is more related with games (*ludus*-type) than with play or playfulness (*paidia*-type) (Salen and Zimmerman, 2004).

Game design elements are the main building blocks of gamified applications. Game elements are being applied in diverse type of non-game contexts with varying degrees of success. There are various types of game design element and depending on the type and purpose of application, numerous game elements can be utilized in a single application. The most common type of game elements encountered in gamified platforms include points, badges, levels, leaderboards, performance graphs, meaningful stories, avatars, virtual currencies, customization (personalization), tasks, social network features, and teammates. Table 1 shows the descriptions of each game design element mentioned above.

In the related literature, it is possible to see various alternative terms which are being used to refer to gamification, such as 'serious games', "applied games" 'game based learning', 'games for a purpose', 'productivity games', 'behavioral games', etc. The most common interchangeable used term with gamification is the "serious games". Even though they are related, they refer to different things. Serious games which was introduced to the literature by Abt (1970) refer to the games designed for a purpose of educating rather than merely entertaining users. Whilst serious games do entertain up to certain extent, they go beyond and mainly focus on training and skill development, educating, and behavioral and attitudinal change process. The term game elements helps in distinguishing gamification from serious games (Deterding et al., 2011a). While gamification refers to the use of distinct game elements embedded in real-world contexts, serious games are fully-developed games serving a specific, non-entertainment

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