GAMIFICATION: USING GAMING MECHANICS TO PROMOTE A BUSINESS

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ABSTRACT

The use of digital games and gamification has demonstrable potential to improve many aspects of how businesses provide training to staff, operate, and communicate with consumers. However, a need still exists for the benefits and potential of adopting games and gamification to be effectively communicated to decision-makers across sectors. This article provides a structured review of existing literature on the use of games in the business sector, seeking to consolidate findings to address research questions regarding their perception, proven efficacy, and identify key areas for future work. The findings consolidate evidence showing serious games can have a positive and valuable impact in multiple areas of a business, including training, decision-support, and consumer outreach. They also highlight the challenges and pitfalls of applying serious games and gamification principles within a business context, and discuss the implications of development and evaluation methodologies on the success of a game-based solution.

1 INTRODUCTION

Modern businesses are frequently faced with challenges such as rapidly evolving marketplaces, shifting labour markets, and the need to reach consumers who are increasingly engaging with a wide range of digital media, both in the workplace and during their leisure time. Addressing these challenges requires a wide range of skills from both senior and front-line staff, in-turn requiring innovative and effective training tools to aid staff at all levels of an organisation as they adapt in response to emerging challenges. This article considers the specific case of the application of digital games for serious purposes ("serious games"), and using game elements to enhance existing services, training programmes, and products ("gamification") with respect to the benefits they offer to businesses, both when adopted as additions or alternatives to existing training or decision-support systems, and as a means to reach consumers.

Underlying this review is an identified need to communicate the benefits of the use of gamification to address a wide range of perceptions of games and gaming across sectors, organisations, and individuals. Whilst academic evidence demonstrates the benefits of the use of games/gamification to address problems across a wide range of contexts, developers of serious games and gamification often face a challenge in presenting a compelling business case for their use, particularly as game elements may superficially appear unrelated to targeted objectives, or less likely

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Today the use of game elements, design and mechanics is incorporated in many aspects of our lives such as education, work, entertainment, communication and exercise. Many researchers have studied the benefits of participating in games in peoples’ lives. For example, Jane McGonigal [1] mentions numerous aspects that can be promoted through games and gamification is that the former is an actual product that is consisted of gamified activities whilst the latter entails a process that may exist within or without the necessity of a game and its subsequent environment.

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Gamification offers the introduction of competitive elements. Such elements are typically unexpected or avoided in more conventional pedagogy, for example Goodenough suggested competition in a conventional educational setting leads to anxiety and reduced learning enjoyment. Gamification often seeks to add value or additional challenge to mundane activities: success requires either genuine perception of this value, or utilizing the increased challenge to create a “flow” experience that engages the player. Simply adding points without having a value is unlikely to lead to meaningful behavioral change or learning outcomes, rather, these points need to be given value either in terms of tangible reward, or capitalize on social elements to stimulate collaboration and/or competition.

The table below gives examples of successful introduction of gamification in business context.

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Already influenced work, advertising, news and political communication, and that the latest games itself, by aligning the individuals' interests with the organisational goals. They argue that games have gamification can deliver benefits to the individuals who interact with the business and the business itself, by aligning the individuals' interests with the organisational goals. They argue that games have already influenced work, advertising, news and political communication, and that the latest games should be seriously considered and used in transforming the entire Human-Computer Interface.

**3 BENEFITS OF GAMIFICATION**

Reeves and Read [9] argue that gamification can help in increasing productivity and job satisfaction by transforming serious work into exciting, engaging and entertaining play. They also believe that gamification can deliver benefits to the individuals who interact with the business and the business itself, by aligning the individuals' interests with the organisational goals. They argue that games have already influenced work, advertising, news and political communication, and that the latest games should be seriously considered and used in transforming the entire Human-Computer Interface.

Matt Davis, director of innovation for the Filene Research Institute, realised what gamification can offer to the sector of financial services and stated [10]:

Through the creation of the America’s Army Game, they have improved their recruitment process. Currently 11 million people are playing their game. Nike build a system that allows it customer base to track, share and compare exercise results while they earn achievements points. Currently 11 million people are using their system.

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The goal of gamification is to use the dynamics and mechanics associated with games and apply them to real-world experiences of misaligned incentives, behaviors, experiences, and unmotivated audiences; the enemy of traditional financial services, gamification could be our hero.14 Some of the characteristics of games combined with the playful nature of the human species allowed games to become a great part of our lives and progressively invade the industry.

Colucchinaty (2013)15 states that rewards of arbitrary nature, such as party hats, have always been competing against each other for vital (e.g., food, water, land) or scarce resources in order to survive. Therefore, design thinking groups of people to compete against each other within a game stimulates the survival instincts that are found in everyone. 

Moneta et al. [14] believe that in technological advances, as activities with no external goals can become pleasant with challenge stimulations, while goal oriented activities become unpleasant with challenge stimulations, people are already interacting game-like, and gamification can involve foregrounding the recognition of this, rather than explicitly attempting to modify the activity. This would make it much more likely that the individuals have an interest in certain audiences [16], and it could be argued, based on the author's own subjective experience, that simply referencing pop-culture shows built around teamworking such as The Apprentice can have a dramatic impact on students' enthusiasm and attitude in approaching team-based activities.

Rewarding systems, which are part of game mechanics, are also a common feature of games and play a central role. Reeves and Read [9], support that by using rewards that are directly connected and core to the employees tasks and removing the responsibility and control from supervisors, can lead to the decentralization of a business and allow the employees to adjust and develop self-organising hierarchies. Furthermore, these loose hierarchies will force people to adjust and develop self-organising behaviours that are ideal for them, and therefore, more efficient. These changes can create a democratic environment, where employees will be able to select and execute tasks that better fit their aims and ambitions. Additionally, well-designed rewarding systems can become permanent reminder of peoples' contributions to every task. They can also empower the spontaneous formations of teams and alliances between previous unrelated individuals, which share common interests and have the same excitement and internal motivation in completing a specific task.

4 INHIBITORS TO SUCCESSFUL EXPLOITATION OF GAMIFICATION

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theory partly contradicted by a number of studies [19, 20]. A more comprehensive solution, therefore, should seek to understand the needs of everyone fully and provide them with the optimum resource based on this understanding, a task which is the subject of continued research [21].

Korolov [22] mentions a number of mistakes or omissions that could lead a gamification initiative to failure. According to the author, using the wrong rewards or replacing reasonable compensation with virtual rewards is one of these mistakes. However, this would be acknowledged that it is not panacea and can bring negative or even the opposite of the intended effects if not used carefully. Although it is not a trend, and it is here to stay, it is not a silver bullet for all the problems in the industry [17]. Being able to capture, store, retrieve and correctly interpret data is also very important [17], especially in cases where people's efforts need to be recognised and rewarded. However, if these achievements gain a negative connotation (e.g., wasting time, non-productive, just entertainment), the opposite results can occur with the users stop using the system, their achievements systems triggered undesirable usage patterns leaving the users unconvinced and concerned.

Montola et al. [14] and Burke and Hiltbrand [23] call for caution when integrating achievement systems. Even though people like and appreciate what they are doing, they may not use the system in a way that is not intended increase is important [17]. Even though the supporters of gamification can list numerous positive effects of serious games, they still acknowledged that it is not panacea and can bring negative or even the opposite of the intended effects if not used carefully. Although it is not a trend, and it is here to stay, it is not a silver bullet for all the problems in the industry [17]. Being able to capture, store, retrieve and correctly interpret data is also very important [17], especially in cases where people's efforts need to be recognised and rewarded. However, if these achievements gain a negative connotation (e.g., wasting time, non-productive, just entertainment), the opposite results can occur with the users stop using the system, their achievements systems triggered undesirable usage patterns leaving the users unconvinced and concerned.

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References


