

ARE YOU GAME?

Exploring *Gamification as an HR strategy* in the changing times

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Abstract

As a concept, Gamification has gained a lot of momentum in the recent times. With companies trying to sustain themselves and grow in today's VUCA (volatile, uncertain, complex and ambiguous) world they need to seek out more ways of keeping their ambitious, competitive and highly networked workforce more engaged. This paper is directed at studying the concept of Gamification in the context of motivating and engaging employees. Gamification has reaped rich dividends in terms of attracting, motivating and retaining talent in organizations. Using the dynamics and mechanics of gaming in a non-game context, Gamification helps in infusing interest, building connect, incentivising learning and serving as a career planning tool, thereby, allowing the companies to leverage on the psycho-social needs of their employees. This paper explores the construct of Gamification with its nuances, and discusses its application in various workplace contexts. The paper also attempts to showcase Gamification as a strategy which is outside of the realm of the current strategies- as an HR strategy that can make a difference.

Keywords: Gamification, Employee Engagement, Motivation, People Management Strategy

Introduction

“All work and no play, makes Jack a dull man” goes the parlance, or applied to work contexts, it could be slightly twisted to “All play and no work makes Jack a dull man.” But in today’s constantly changing work environment, businesses and organizations are at a stage where the work will have to become play if they are to survive, grow and excel. In their attempts to make every day work more engaging a lot of organizations are applying the mechanics of game playing to day to day tasks through what has come to be known as gamification. “Suddenly Gamification is the hot new business concept with many of the world’s most admired companies signing on” (Alex Konrad, Fortune, 2011).

During the last few years gamification has been popularised as a noteworthy method for marketing and engaging both external and internal customers. There is an increasing number, of successful ventures whose entire focus is directed at “gamifying” the “core activity” (core business processes). Further, the popular interest in gamification seems to also have attracted the academia with more research papers being published in the field. It is especially striking that the term gamification has been appearing in the research paper titles, increasingly, and even more rapidly, than in the general searches on the internet (Hamari, e’tal, 2014).

However, even with the existing research in the area, there is still dearth of literature on more detailed analysis of the methods used to study the concept, the contexts in which the studies were conducted and the results yielded. With a remarkably large number of firms entering the gamification industry, and huge investments being made into using them in various contexts, there are a few pertinent questions that academic research needs to address.

Objective of the research

As the term increasingly becomes a part of the conventional industry lingo, it only befits that the relevance and effectiveness of gamification and the contexts in which it is currently being applied, is empirically established. Further, it is essential to understand the construct in its own form, independent of other game related concepts. There also seems to be a compelling need for clear identification of motivational affordances and the psychological and behavioural outcomes associated with it.

This paper is an attempt at conceptually examining the construct while unravelling its elements. We further try to understand its position in relation to similar concepts and examine its application and relevance in various business contexts. Finally, we propose a framework which will enable organizations to leverage on gamification, as a unique Human Resource Management Strategy.

Evolution of the concept

While the concept has been into existence since a long time, it has gained a lot of momentum only in the recent past to acquire the form it is in today.

Archaeological evidence indicates that workplace games may have been used to motivate workers even in ancient Egypt (Mollick, E., & Rothbard. N., 2013). More recent history can be traced back to year 1910, when Kellogg's cereal offered its first premium "Funny Jungleland Moving-Pictures book" free with the packets. About two years later, Cracker Jack introduced "A prize in every box" which became a hit¹. Thus, while the concept of Gamification was yet to come into existence, its foundations had been laid with companies using game like approaches.

In the year 1959, Duke University Sociologist, Donald F. Roy, published an ethnographic study of the workers in Chicago called the "Banana Time: Job Application and Informal Interaction". In his work, Roy studied a group of machine line workers in Chicago who worked twelve hour shifts. Roy chronicled how these workers coped with their work conditions- in particular the "beast of monotony". In the study he describes how the workers divided their day with food breaks ("peach time," "fish time," "coke time"); self-imposed and meaningless targets ("stamp a thousand green shapes in a row"); and even practical jokes, like a daily ritual in which one employee stole and ate another's banana, triggering a inundation of "protests and denunciations" from the victim—who nonetheless made sure to bring another banana to work the next day. Even years later, researches who studied to Roy's Chicago factory, found that the workers there had become preoccupied with a factory-wide competition to beat individual production quotas. Further, it was noted that the employees were more enthralled by the game itself than by the modest cash prize for which they were competing.² This also offers an initial insight into the concept of motivational affordances that we will discuss later in the paper.

In 1973, Charles Coonradt founded the 'Game of work', in an attempt to answer the charge that US productivity was not world class and in 1984, wrote a book titled "The Game of Work- how to enjoy work as much as play". Here, he tried to address the question of "why would people pay for the privilege of working harder at their chosen sport or recreational pursuit than they would at a job where they were being paid?"³ It is noteworthy here, that with time, researchers in their attempt to explore the concepts of games and work have also looked at the motivational elements of games.

It was around the 1980s when the idea gained more grounding and started shaping up with the introduction of technology into the field of gaming. Richard Bartle in late 1980s developed a massive multiplayer online game called "Multi User Dungeon (MUD)" which was a text based adventure game. Trubshaw was the originator of the game and later handed it over to Bartle who contributed a lot to the game database and

¹<http://thegovlab.org/gamification-a-short-history/>. Accessed on 11th Feb, 2014

²<http://www.newyorker.com/online/blogs/currency/2013/09/when-work-is-a-game-who-wins.html>. Accessed on 11th Feb, 2014

³<http://www.forbes.com/sites/kenkroguer/2012/09/18/5-gamification-rules-from-the-grandfather-of-gamification/>. Accessed on 11th Feb, 2014

introduced many locations and puzzles. Through this game Bartle researched on the personality types of players, which was later adapted into a popular online test called the Bartle's test.⁴

Since then a lot of research has been done on video games and learning. At this point, a special mention must be made of the "Serious Game Movement" initiated by David Rejeski and Ben Sawyer in 2002. Serious games were used to train people for particular tasks in their jobs such as defence training or insurance sales training. More recently serious games are being deployed to tackle a wide range of behavioural and attitudinal issues. (Akhgar, B. and Yates, S. 2011). However, while people by now had accepted using games and game like approaches in work contexts, gamification as we know it today had still not come into being.

It was only in the year 2003 that the term "Gamification" was coined formally and matured into the form that we know today. Nick Pelling, a British computer programmer and inventor is credited for coining the term "Gamification". Further, it was only in 2010 that the concept gained popular acceptance and thereon, found its application in various contexts.

Defining Gamification

Owing to its infancy, there is still not one commonly acceptable definition of the concept. In their attempts to define gamification, researchers have looked at the dimensions of game elements (Cheng, Li-Te, e'tal, 2011), game design elements and non-game context (Deterding, S. 2011).

Game elements refer to the parts or the pieces that are used to design patterns. This refers to elements like badges, leader boards, levels, rewards etc. They are the parts of the game that can be pulled out and used later.

The second dimension is the game design elements. These elements also involve game design techniques and are a combination of the technology and the experiential and artistic approach to game design through the interface of the game, the player personas etc. Certainly though, the boundary between game, and a game artifact with game elements can be fuzzy. For this reason the current game studies recommend that the definition of a game must exceed the game artifact and should incorporate technical as well as social elements (Hoonhout, J. and Meernek, B. 2011).

The last dimension in the definition is the non-game context. This refers to an intention that is independent of the game and a purpose that has some validity outside of the gaming context. This is the most essential part of the definition since it has created a lot of discussion amongst the academicians and practitioners. Identifying and separating a gaming context from a non-gaming context could especially be a challenging task. (McCall, R., e'tal, 2013). However, a distinction must be made from the other similar constructs like serious games, playful interaction and game based technologies (Deterding, S. e'tal, 2011).

Integrating the dimensions mentioned above, we propose to define '*gamification as the use of game elements and game design elements in non-game contexts*'.

⁴<http://www.theguardian.com/technology/gamesblog/2007/jul/17/idcloseworld>. Accessed on 11th Feb, 2014

To establish gamification as an independent construct *vis-a-vis* other related constructs, we must look at the following representation (Deterding, 2011).



Fig. 1 Positioning Gamification

Deterding distinguished between two features on the axes- whole v/s elements and game v/s playful interaction. Gamification here falls under the quadrant where it includes just a few elements of game and also has an element of playful interaction.

This brings us back to the definition we have used for this study i.e. using “elements of game” in non-gaming contexts. To understand this definition better in the work place contexts, it becomes vital to look at a few industry applications of gamification. While gamification is used into various contexts including customer engagement, service marketing, sales and many more, we shall restrict our study to its application in the context of Human Resources in the organizations.

Application of Gamification in Human Resources

Though it has found popular acceptance in the West, Gamification is fast gaining approval even with the Indian HR professionals. HCL Technologies, Cognizant, L’Oreal, Marriott, Capgemini and Deloitte are some of the torch bearers using gamification in the various stages of employee lifecycle resulting in immense benefits to overall business performance.

HCL Technologies

HCL Technologies used game mechanics to build a new hire on boarding platform. After the new hires accept the job offers, they are sent a welcome mailer with a link to play a game, 15 days before their joining. There are five levels- employee work profile, innovation at HCL, work life balance, employee growth and HCL culture of intrapreneurship. Participants need to complete all the stages sequentially to get a reward, either a tangible gift or intangible badge. And participants are awarded a certificate of appreciation post the completion.

HCL predicts that the probability of the candidate dropping was reduced to 1.26 percent from 10.62 percent after playing the game. (Kaushik, S, 2013). According to Narayanan, Head, Talent Acquisition, HCL Technologies, the greatest advantage of gamifying the employee on-boarding has been in terms of their increased ability to predict drop outs with almost 90 percent accuracy.⁵

L'Oreal

L'Oreal uses three unique tools- Brandstorm, 'R U HR?' and REVEAL in their candidate selection process to hire better job fit candidates. Brandstorm is an offline activity that allows participants to develop a new product line for one of its brands and launch a campaign for it. REVEAL is an online activity for management aspirants that help a candidate determine his/her growth in the organization with global business. While 'R U HR,' allows candidates to develop an HR Strategy by solving a case.

Cognizant

Cognizant's My Career is a carefully designed suite that helps employees with their performance management. Based on arcade racing experience, employees need to drive along a course covering numerous process centric milestones. The pre-race warm up segment allows the participants to understand their roles through score cards, skills matrices, training and development needs and role movements. In the race segment, they set goals at the starting line, do a mid-year check in at the pit-stop and complete year end performance evaluation at the finish line. It also leverages elements ranging from avatars, social/peer rating, badges to leaderboards and progression bars. And as Rajagopal, VP-HR Cognizant puts it "It has catalysed superior performance goals, improved process compliance, and faster and more effective learning".⁶

Zensar Technologies uses gamification to promote cultural values and NIT Data is using it to build collaborative teams for knowledge sharing, while Next Jump a New York based firm uses it to track the number of times individual employees and specific teams work out in the gym.

Application of game mechanics and game elements has found eager buyers in all the functional areas of HR including talent acquisition, training and development, talent management and performance management. According to Gartner, by 2015, more than 50 percent of organizations that manage innovation processes will gamify those processes.⁷

However, a very pertinent question that needs to be addressed here is that in all the examples mentioned above are the companies really using gamification or is it the game itself. If we consider the initiatives at HCL and L'Oreal, both would probably fall in the serious game quadrants of Deterding's illustration. This is because both the initiatives are using games as whole for their talent acquisition processes. However, the initiative at Cognizant doesn't use game as a whole but uses the game mechanics and game design elements of levels, leader boards, feedback, rewards etc. to modify behaviour in a context that is a non- game like.

⁵Kaushik. S, The Game is On, Human Capital, November 2013

⁶Kaushik. S, The Game is On, Human Capital, November 2013

⁷<http://www.gartner.com/technology/research/gamification/>

Why does Gamification work?

After having established the position of gamification and discussing its applications in HR, the next question we need to address is the reasons gamification works. There is something especially compelling about games at work. This is driven by a particularly influential logic rooted in the thought that *work isn't always fun, games are fun, so turning work into a game will make work fun*. (Mollick E, and Rothbard, N., 2013).

There are certain elements inherent in gamification that make it work in the industry and the companies leveraging it are taking the essence of what makes it so appealing (a sense of shared purpose, challenge and reward), decoding the mechanics that make them work (personalization, ranking and leader boards) and the applying these mechanics in a multitude of creative initiatives. (Ryan, M. e'tal, 2013).

Game mechanics are the tools and techniques that act as building blocks for gamifying any application or process. They can be used either individually or collectively to create a highly engaging user experience. Some of the most commonly used mechanics are:

1. **Points:** Research at IBM research (2012) and University of Chicago (2013) has shown that earning points can have dramatic effect on participants' behaviour even when they have no monetary value. Points can be used across multiple dimensions and different categories of points can be used to elicit different behaviour. They indicate status, can act as rewards or participants can exchange them for something else that they value.
2. **Levels:** Indications that one has reached a certain position, levels specify accomplishment in a community, and command a certain status and respect. These are thresholds or milestones that users can automatically level up based on participation or usage to indicate status.
3. **Challenges, trophies, achievements and badges:** These are the visible signs of recognition of having achieved certain milestones. Besides, they are the tangible accomplishments that the participants can "show off". Challenges provide people with missions to accomplish and then reward them for doing so. Challenges give people goals and the feeling they're working towards something.
4. **Virtual Goods:** Virtual goods provide participants with an opportunity to customize and give them a sense of identity. These could be non-physical, intangible objects which could be exchanged for points and can provide participants an opportunity to boast too.
5. **Leaderboards:** This is where participants in any gamified process get an opportunity to showcase their achievements and standing compared to their competitors in the game. Leaderboards are used to track and display desired actions using competition, sense of achievement and pride to drive the target behaviour.

What makes the study of game mechanics important is also that they address certain mechanics of gaming that drive behaviour by satisfying one or more of the motivators or desires like reward, status achievement, self-expression and competition.⁸ These elements are rule- based and constitute the boundaries between game

⁸Gamification 101: An Introduction to Game Dynamics, Bunchball, 2012

world and the real world. An enjoyable and engaging game can motivate and influence users to behave in ways very different from the real world. (Visch, V. e'tal, 2013).

Motivational affordances

After having explored the concept, positioned it and established its importance, we need to make it usable for the organizations. It is important to note that although a lot of research has been done on game theory and gamification, unified models for using gamification to facilitate the desired behaviour change are scarce (Visch, V. e'tal, 2013).

A promising approach to systematically conceptualize the application of gamification is that of motivation affordances (Zhang, P., 2008). This states that “motivation is afforded when the relation between the features of an object and the abilities of the subject allow the subject to experience the satisfaction of such needs when interacting with the object” (Deterding, S., 2011). The underlying theory behind motivational affordances is Self Determination Theory (SDT) of motivation which states that autonomy-supporting or autonomy-thwarting qualities of any environmental condition (in this case, the conditions created under Gamification) are not objectively specified but subjectively interpreted, in line with the social conditions (Deterding, 2011). For instance, a particular task at work, introduced by the management and tied to cash rewards, neither stays voluntary nor fun and also has consequences. Such a task could be construed as thwarting, restricting autonomy and hence intrinsic motivation.

To this end, Deterding proposes that the motivational affordances have to be “situated”. “Situational motivational affordances describe the opportunities to satisfy motivational needs provided by the relation between the features of an artifact, and the abilities of the subject in a given situation. This will comprise of the situation itself (situational affordances) and the artifact in its situation specific meaning and use (artifactual affordances)” (Deterding, 2011). Situated motivational affordances help understand when and how game elements stimulate motivational affordances in non-game contexts (Gears, D.,& Braun, K., 2013).

According to Deterding, any situation at hand, a) provides motivationally salient features of its own b) shapes the usage, meaning and consequential salient motivational affordances of the artifact in question. Therefore, it acts as an impetus for the participants to behave in a desirable way.

Conceptual Model of Gamification

Taking the concept a little further, we propose a model for conceptualizing Gamification that integrates the elements in Gamification and the concept of situational motivated affordances.

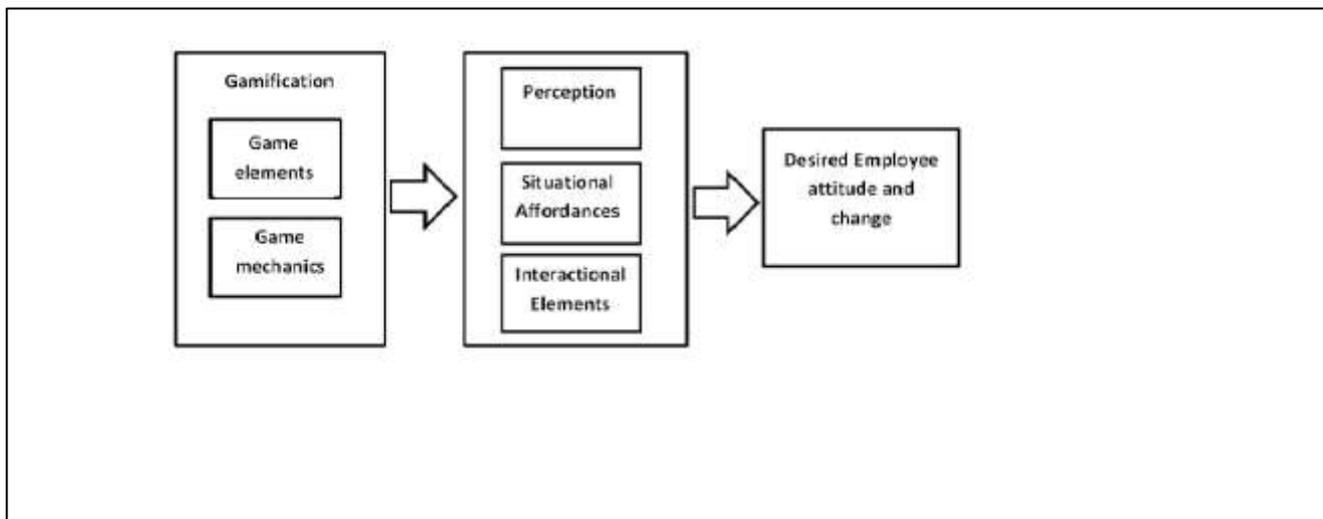


Fig.2: Conceptual Model of Gamification

This model talks about two components of Gamification- Game elements and game mechanics. Game elements refer to the parts of the gamifying process like the points, leaderboards, badges, levels, player personas, rewards etc. Game mechanics refer to the rules of the game and how it works. Game mechanics could be the flow of the game, the dos and the don'ts, who participates in the game- essentially the mechanics that make the “game” work.

Game elements and game mechanics independently as well as together, affect three essentials of the player experience- Perception, Situational affordances and Interactional elements.

By perception here we refer to three interpretations of the gamified process by the participants- a) the players acknowledge that the “game” is being played and have consent in it, b) the extent to which players understand the “game” in order to embrace it and c) the extent to which they perceive the “game” as fair in order to fully accept the gamified experience (Mollick E. and Rothbard, N. 2013).

Situational affordances, is the concept derived from Deterding’s ‘situated motivational affordances’. This refers to the extent to which the game elements and the game mechanics interact with the situation (gamified context) to create conditions that satisfy the motivational needs of the players in the “game”.

The last element, interactional elements refer to the elements embedded within the organization, which interact with the above mentioned components of the player experience. These elements refer to the culture of the organization, the processes within an organization and the way they interact, enabling systems and structures and the subsequent work flow in the organization.

It is the interactions among the elements of participant experience with the game elements and the game mechanics, which will determine the extent to which the gamified process succeeds in attaining the desirable change in the employee attitudes and behaviour.

Making Gamification work

Based on the conceptual model discussed, we further propose a 5 step approach that organisations could use to implement gamification. We believe that the model is a user friendly way of operationalising gamification and will enable the practioners to create a buy in with all the stakeholders involved.

Step 1: Diagnosis

The first step in implementing gamification is the diagnosis of the situation at hand for all its nuances and identification of the people involved. This would mean beginning with an end in mind and identifying the behaviour or attitude where the change is desired. The diagnosis stage will also involve identification of the right process to be gamified and choosing the players for the “game”.

Step 2: Identifying the situational affordances involved

Once the process is determined for gamification and the players have been identified, organizations would need to identify the situational affordances involved. This will help the designers of the “game” determine their “strategy” based on the likely perception of the players. By targeting the right affordances they will be able to target the right motivational needs and will be able to create an engaging and satisfying user experience, which is also “fun”.

Step 3: Grouping the interactional elements

The next step for the game designers would be to identify the right interactional elements and group them accordingly so that they can target the right affordances. Different interactional elements could affect the user experience differently and hence it becomes essential to target the right elements. Grouping could also help designers identify external elements that could possibly confound the interaction. For instance, in a particular element the extrinsic motivation associated could be so high that the intrinsic motivation associated with the affordance may weaken.

Step 4: Designing the game elements and mechanics

This is where the actual designing of the game will occur. Based on the diagnosis and analysis so far, the elements of game and mechanics of the game as discussed earlier will be identified in the relevant real-world contexts so as to be operationalised. This step will also involve detailing of the process with the rules of the game, time lines, review mechanisms, pauses and breaks if any, etc. A very important aspect of designing the mechanics is to establish a process to track the behavioural data and making feedback easy.

Once, the “game” takes a concrete form, a pilot study needs to be done to ascertain the validity and minimize the risk involved. It will also enable organizations discern the experience for both the players and the implementers of the process, and establish better buy-in.

Step 5: Implementing a tracker

The final step in making gamification work would be to study if it really works. The tracker will be a feedback mechanism that closes the loop. The tracker ensures that the players are updated on their own as well as their “competitors” progress in the game. Further, it will ensure that the reward mechanism, the rules, any new challenges or pit stops are executed seamlessly and will ensure an enriched and engaging user experience. Besides, the will serve as a feedback mechanism for the process owners, make the experience for them more functional and enable the measurement of the return on investment.

Word of caution

Gamification has gained a lot of currency over a last few years and a lot of organizations are embracing the concept. There have been reports of real value being added to the business and very high levels of engagement among the employees. However, there is some critique around the concept too. Greenfield (2013), a prominent researcher in the area states that “Gamification is not an alternative to good management” and that gamification is nothing but an old wine in a new bottle.⁹ Further, it is also felt that the thrill and motivation that the rewards and points provide is only extrinsic and short-lived. Researchers also question the ability of gamification to fix something that is already broken. Game mechanics could also be misused to bolster a flawed product or service.

Gamification is a design process that includes multiple considerations, mechanics and theories. Relying on a single element may leave the efforts lacking. Also, as the prevalence of gamification increases, there is both the risk of users demanding it in all interactions, as well as users seeing it so often they get bored. Researchers also argue that Gamification could be perceived by the users as “mandatory fun” and thereby experience it as unfulfilling.

Implications of the study and scope for future research

Despite the criticism the concept offering still seems to stimulate interest in practioners and academicians. The current study has implications for the both the practioners as well as academicians. Gamification can be an effective tool to create engagement in the various HR process within an organization (Robinson D. & Belloti V., 2013). The distinction between gaming and gamification discussed in the study can help the process owners in an organization implement it. Further, the conceptual model and the step-by-step approach of making gamification work can be applied to any HR process in an organization to create engagement, enhance performance and bring about the desired attitude and behavioural change. The users of the gamified process have a lot to benefit because the process experience will become a lot more enriching and satisfying. Academicians can use the concepts discussed in the study to explore the concept in multiple contexts, various cultures, with various work groups and add a lot of value to the concept through more empirical studies.

⁹The Engagement Economy, Deloitte Review, Issue 11, 2012. Accessed on 10th Feb, 2014

The current study is an attempt to understand and explore the construct of Gamification with all its nuances and understand its application within the HR arena. However, the scope was limited only to the context of people management. Further, the study is more a conceptual exploration and does not include empirical data.

Researchers in their future studies could look at more empirical studies that can establish the effectiveness of the process. Further research could also look at differentiating gamification from other similar constructs. It would also be interesting to study the user perceptions of the gamified process. More work is also needed in the field of motivational affordances and elements from game design theory that can be incorporated into the process of gamification.

Conclusion

Gamification has come a long way since its inception and is already reaping rich dividends. It has found immense application in the HR arena and the players claim to have a good time playing with. More works needs to be done to consolidate and strengthen the concept further. But a game can stay only as long as the players want it to. So it's time for the players to decide- "Are they game?"

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