An academic analysis of Gamification

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Abstract

Gamification refers to concept of using game elements to non-game contexts, such as sales, marketing, education etc. It includes all the elements of fun, play and progression as experienced in "real" games. In this article, we shall explore some gamified portals and demonstrate how gamification has improved businesses by providing a few real-world examples and discuss some innovative case studies for solving pressing issues through the use of Game elements.

1 Introduction

A Game is a series of meaningful choices. Often times, playing a game modifies certain aspect of human behavior. It leaves the players in the realm of comfort, segregated from the real world – The Circle of Magic. There have been a number of games, which are played across generations like World of Warcraft (WOW). WOW wiki is the second largest wiki after Wikipedia(Dybwad 2012). Till date, WOW gamers have collectively spent 5.93 million years solving the virtual problems of Azeroth (McGonigal 2012).

Millions of hours are spent on playing Games such as Angry Bird, Farmville etc. and billions of dollars are accumulated in virtual currency though game quests (Griffiths 2010). Today, over 3 billion hours a week are spent worldwide playing games; several thousand users play games every day(Matarese et al. 2002).

Why are people so addicted to games?

Can we learn something from them?

The paper will analyze the game elements and offer insights on Gamification for businesses.

2 The Power of Games

Games offer meaningful social experiences that can translate into the real world. Playing games make us happy because they fulfill important human desires to work with others and to have "epic wins" in our lives (Hsu and Lu 2004). When people play games, they are tapping into their best qualities, their ability to be motivated, to be optimistic, to collaborate with others, to be resilient in the face of failure (Bakkes, Tan, and Pisan 2012). The skills learned while playing games need to be harnessed for the social good (Moore 2011).

In an interview on The New York Times Bits blog, McGonigal describes her experience creating "*World Without Oil*," a simulation game where demand for oil outstrips its supply (Bilton 2011). Over a six-week period, 1,700 players came up with conservation strategies as part of the game.

> *"When we had the real gas crisis in the United States a year later, the people who had played the game were able to implement their oil-saving techniques that they had learned from the game," McGonigal said. "We reached out to some of these people and found out that they had a strategy in place and coped better than their neighbors."*

Furthermore, McGonigal identifies the reasons why so many people worldwide immerse themselves in games and the motivation that drives them to stay away from real life(McGonigal 2011). She labels gamers as "super-empowered hopeful individuals" that exhibit four distinctive behavioral traits, namely:

1. Urgent Optimism
2. Social Fabric
3. Blissful productivity
4. Epic meaning

Urgent optimism is the desire to act and the belief in achieving success; *Social Fabric* is the ability to trust and form stronger social bonds through game playing; *Blissful Productivity* is the belief that the task they are engaging with is meaningful, hence the dedication towards the game task itself; and finally, *Epic Meaning* is the strong attachment to a meaningful and awe-inspiring story that they are personally involved in and striving to make their mark on it.

3 Gamification

Gamification is the application of game elements and design techniques in *non-game* contexts (Zichermann and Cunningham 2011). Zichermann defines gamification as follows:

the process of using game thinking and game mechanics to engage audiences and solve problems

For simplicity, we may define gamification as the application of the basic elements that make games fun and engaging to things that typically aren't considered a game. The "fun" aspect is especially important to explore. According to Raph Koster (Koster 2005),

Fun is the act of mastering a problem mentally

The key issue of the concept is that it is basically elements of game-playing that are designed for employment in a non-game context - and that is what sets it apart from serious games and design of playful interactions (Reeves and Read 2009).

Non-game contexts imply objectives other than mere success in the game. Such objectives include an overarching cause. For example, such objectives may be intrinsically motivated (Malone 1981) and may involve attempts towards making a social impact or address sustainability factor(s), such as energy consumption, poverty elimination, etc. (Bandura and Schunk 1981). Gamification is not about translating everything into a game, but rather a problem-solving activity (Schell 2008):

A game is a problem-solving activity, approached with a playful attitude.

Some of the game elements commonly seen in a Gamified site are *Points, Quests, Rewards, Badges, Avatars and points* (Hamari and Eranti), (Steele and Chung 2012). Gamification is predominantly classified into three categories, namely:

1. External
2. Internal
3. Behavior Change

The goal of an External Gamified system could be for Marketing, Sales and Customer engagement (Huotari and Hamari 2012), (Hugos 2012), while that of Internal Gamified system would be to enhance productive and promote collaborative efforts such as crowd sourcing (Deterding et al. 2011). Behavioral changes gamified system would tend to change user behavior patterns (Anderson and Bushman 2001). For example, a gamified site promoting personal savings.

4 The need for Gamification

Following the immense success of the location-based service – Foursquare - the idea of using game design elements in non-game contexts to motivate and increase user activity and retention has gained rapid traction in interaction design and digital marketing.

Through gamification, Foursquare, which came after Dodegeball, a check-in app that indicated whether your friends were nearby once you checked in, filled in the engagement gap, progression, and the social elements that were absent in Dodgeball by offering *points*, *badges* and other rewards. With such modification, the user base of Foursquare grew to around 20 million users within a short span of time.

Stack overflow has been immensely successful in motivating users to answer queries posed by other users because of the gamified aspects of the site. DevHub is another site that implemented gamified elements and has seen substantial increase in the number of users by rates as high as 90% (Takahashi 2012).

In today's rapidly changing business world, acquiring critical mass of users is often difficult and time consuming. Through Gamification, user base can be enlarged in a short span of time. Furthermore, customer engagement can be simultaneously improved. However, there is not much quantified research as the topic itself is in infancy.

5 Design Principles

5.1 Understanding the "Players"

Understanding the target audience is the first step; a proper design and implementation of any gaming system has to resonate well among the target audience. In this article, we shall use the Bartle framework to achieving this knowledge (Bartle 2004).

The Bartle framework is based on Character Theory, which is used in the context of media for analyzing and understanding the roles of actor or social actor that people take in a given setting (Hinton 2000). The Bartle framework builds on the *Bartle Test of Gamer Psychology*, which encompasses a set of questions and a scoring formula to classify players of multiplayer online games, including Multi-User Dimension (MUD) and Massively Multi-player Online Role Playing Game (MMORPG) players, into categories based on the gamer's preferences (Sempere 2009).

A MUD is a multi-player real-time virtual world, in which players interact through commands that resemble a natural language (Turkle 1997). MMORPG is a genre of role-playing video games in which players interact with one another within a virtual game world (Castronova 2006).

According to Bartle framework, players take on the following roles:

1. Achievers
2. Explorers
3. Socializers
4. Killers

5.1.1 Achievers

These players prefer gaining points levels, equipment and other concrete measures of success

5.1.2 Explorers

These players prefer novelty, such as discovering hidden areas and places, creating maps, etc.

5.1.3 Socializers

These players prefer interactions with either other players or, on some occasions, with computer-controlled characters with personality

5.1.4 Killers

These players prefer departing from the norm of "*the good guy*" to the side of "*evil or conquest*"

5.2 Game elements

Badgeville, a major US Gamification Technology Vendor, identifies a set of gamification elements as key components of their *Behavior Platform* covering:

1. Points: Assign points for specific high value behaviors and achievements
2. Achievements: Provide positive reinforcement for high-value user behaviors
3. Levels: Signify levels of engagement across a company's ecosystem
4. Missions: Create set of behaviors for users to perform to unlock specific rewards
5. Contests: Create a set of missions, and reward those who finish most quickly or effectively
6. Leader boards: Show people know where they stand as relative to their peers
7. Notifications: Encourage engagement when users perform a desired behavior
8. Anti-Gaming Mechanics: Set limits on how often a behavior can be rewarded

The basic structure of any game is made up of four elements (Schell 2008):

1. Mechanics
2. Story
3. Aesthetics
4. Technology

Even simple games include these elements to some degree. It is crucial to understand these elements, because the elements of the game not only need to be conveyed from one person to another, but also the design and process must also pass through an intermediary - the computer. Hence, understanding how these elements fit together is very important.

5.2.1 Mechanics

Mechanics is about the game's rules and procedures; it's about what can or cannot be done and what the goal is. The game mechanics are supported by the technology (Raymer 2011). The game mechanics become clear to the player through the story interpretation and game aesthetics (Matthews, Stienstra, and Djajadiningrat 2008). Mechanics is the entity that separates games from other entertainment forms.

5.2.2 Story

The game's story is sequence of how information and events unfold in the game (Dixon 2011). The story may be pre-scripted, where the player knows all that needs to be known from the very beginning, or the story may be emergent, where the player learns about the game as they explore the world they've been introduced to (Baron and Bluck 2011). The story is the element that draws the players towards their goal.

5.2.3 Aesthetics

The aesthetics are how the game looks, sounds, or feels. Empirically, aesthetics have been the elements that initially draw players into the game (Carlson 1993). These are often what players remember about the game and how they describe it to others. Aesthetics comprise of a large category of experiences that are unique to gaming. The experiences gathered from an act of gameplay are simultaneous combinations of:

1. Apprehension / appreciation of aesthetic qualities e.g. the visuals
2. Temporal interplay between the space of choices and consequences of those choices
3. Literate reading of the gameplay within the gaming context
4. Kinaesthetics of game play

All these elements are important; a complete experience cannot be attributed to any one element.

5.2.4 Technology

Technology is the set of tools used for gaming and may range from very simple (*Dice, Cards, etc.*) to extremely complex/sophisticated (*Xbox, Nintendo, etc.*)

5.3 Game Design

In this discussion, we call Customer/ Consumer using the Gamified site as a ***Player***. The player has a journey through various stages of the game. The first step of the journey is to bring the Player to use the gamified system - the process referred to as *on boarding* (Sumner 2011). In other words, onboarding is the process of inducting a "novice" into the system.

Once onboarded, the player is given some introductory tasks, thereby inducing *learning* (Prensky 2003). Through this process, the player masters some task and achieves a level of competence in that particular task; this process has the additional benefit of increasing the players' motivation to continue.

The task should neither be too easy, nor too difficult, else the user might lose motivation to continue with the task (Hom and Maxwell 1983). Experience from gaming industry has revealed that the first few sessions that a player engages with the system are the most important, because that's when most decisions are made (Gill 1996).

Humans are trained to simplify huge volumes of information to extract recognizable patterns (Taleb 2010) and to "*thin-slice*" all kinds of situations and people (Gladwell 2007). Game designers, having understood this concept incredibly well, think about players entering a funnel (Swan 2012). So, these designers aim to maximize the value and effect of that first minute by employing tactics, such as training and engaging, but not overwhelming. Furthermore, if the flow variation were high for the gamers, then they would not like the portal (Sy 2011). Hence, balance of all the elements is the key – not too easy, not too difficult and clear progression with some skill acquired as the user advances (Seth Priebatsch 2012).

In designing the gamified portal, one should not overlook the most critical aspect –"Fun" and the overall experience (Sicart 2008).

5.4 Game Dynamics

There are many game dynamics in place (Kim 2012). We discuss four important game dynamics here, namely:

1. Appointment dynamic
2. Influence and Status
3. Progression dynamic
4. Competition

5.4.1 Appointment dynamic:

In general, the appointment dynamic works taps into a core part of the human psychology. It is a dynamic in which, one must return at a pre-defined time and undertake some action to succeed (Scott 2012).

For example, in games, such as Happy Aquarium or Farmville, a user reaps rewards when he/she returns at a prescribed time to feed the fish or harvest crops. Failing to do so on time results in damaged crops or lost fish.

Appointment dynamics are often related deeply to interval based reward schemes or avoidance mechanics (Heath 1999). This game dynamic is so powerful that it not only influences behavior, but also an entire culture (Monjack 2011). As for the Gamification application - A company called Vitality has created a product to help people take their medicine on time. That's an *appointment*. Usually people don't do very well on timing medicine intake. As for the design they have these Glow Caps that flash and send email and do all sorts of cool things to remind the user to take the medicine. One gets points for doing this on time. One loses points for not doing this on time.

5.4.2 Influence and Status

Influence simply states that for an action, there will be a reaction (Martin and Hewstone 2005). Games can be thought of, as systems and the player should be considered part of that system (Spears and Lea 1992). Often, the player is represented literally, through an avatar, but other times the player acts more like a god, influencing the game world from above with no physical representation within it (Panzarasa and Jennings 2002).

In either case, it's a fundamental rule of game design that the game acknowledges the influence of the player. Influence can vary from actions causing reactions all the way to actions causing permanent reconstruction of the game world (Denrell 2008).

The different dimensions of influence are:

1. Self
2. Environment
3. Others

Self:

At the fundamental level, people feel a need to have an influence over their own fate. This is a primary expectation and carries some degree of responsibility.

Environment:

At the next level, people feel a need to have an influence over their environment i.e. to change the conditions that surround them. This is a secondary expectation, and carries a moderate degree of responsibility.

Others:

At the third level, many people like having an effect on others, to share in their autonomy. This is a tertiary expectation, and can carry a high degree of responsibility

Concepts around this dynamic are heavily employed in *Modern Warfare*, one of the most successful selling games of all time. Suppose say that a player is at a level four, but desperately wants to be at level 10, because there is a cool *red badge* at that level. This implicitly means that the player is somehow better than most other players, a heuristic very important to the player. Thus, status is really good motivator.

5.4.3 Progression dynamic

In this dynamic, the users have to make some form of progress; one has to move through different steps in a granular fashion (Ventrice 2012). This is predominant in LinkedIn user interface design; it has a percentage completion *Progress bar* (Hurter et al. 2012). It's so deep-seated in human psyche that when users are presented with a progress bar and easy, granular steps to take to try and complete that progress bar, they almost always strive to achieve 100% completion (Donston-Miller 2012). LinkedIn reported a significant increase in number of people who completed their profile after the introduction of progress bar, which is a very simple, yet so powerful game design mechanic (Mike 2012).

5.4.4 Competition

Almost everybody is familiar with the aphorism:

the thrill of victory and the agony of defeat

Literally, competition describes a situation involving two or more parties, the outcome of which results in a *winner* and a *loser* (Sotamaa et al. 2005). And as the initial quote implies, competition is a vehicle for emotion, particularly drama; this is what makes competition so powerful. Competition is raw emotion (Vorderer, Hartmann, and Klimmt 2003). Anticipation, Elation, Anxiety and Fear all come out bursting in an uncontrolled, emotional roller coaster that is both exciting and unpredictable (Kücklich 2003). Without competition, game emotions are largely vicarious - the player empathizes for a protagonist. In a competitive scenario, the protagonist is *self* and the empathy is *direct*.

Competition seems to fit into seven broad dimensions:

Physical skill:

Competitions of strength, speed and accuracy as in games, such as *Pong* or *Call of Duty*.

Creative skill:

Events of creativity, such as painting, dancing, writing, etc., the goals of which are to spur innovation and sensibilities of a congregation of peers or judges.

Mental tactics

A broad category that embodies anything strategic, involving reading and predicting the behaviors of a system, such as influences of other players. Games, such as *Civilization* to chess challenge and leverage mental tactics as the key underlying skill

Diplomacy

A strategic form involving reading and predicting behaviors of potential allies and undertaking actions with the intent of influencing opinions. Diplomacy goes by different names, such as *politics* to *popularity*, and may include contests from elections and hierarchies to multi-sided war games.

Knowledge:

Resulting from the accumulation and mastery of rules or facts, highly formalized games ranging from *bridge* to trivia contests. Such games stretch knowledge acquired over a period of time and exercise of the rules of the system, which can be deduced and optimal strategies observed and internalized.

Time:

Competitions of persistence or patience, measured by time and participation. Such games include contests of participation, such as a *radio show, online social "mafia" game,* etc.

Luck:

Games with truly random outcomes, such as *dice games, gambling, etc*. Fall into this category. However, through structured analysis, statistical odds could be predicted and, over multiple trials, such games evolve into contests of statistical knowledge.

Most competitions take form of some combination of the above seven elements. For example, the game show *Wheel of Fortune* requires both knowledge and luck, while *StarCraft* involves at least a little bit of almost all of the categories.

6 Game outcomes

Game dynamics draw upon the different elements (Ermi and Mäyrä 2005) and the various permutations of game outcomes (Bond and Beale 2009) are as follows:

1. Zero-Sum
2. Implied Zero-Sum
3. Non Zero-Sum

6.1 Zero-Sum

In a true competition, a player's success is measured relative to the performance of the other players (Kolb 2009). This means that if one player *wins*, another necessarily *loses*. Hence, the metaphorical cumulative success is zero (Friedman, Christensen, and DeGroot 1998).

However, a competition in which everybody wins is not necessarily a zero-sum game. If one player is recognized as winning more contests than others, the competition could be perceived as zero-sum. In this case, the performance of the theoretical average player would count as zero.

The distribution of winners and losers need not be symmetric across population of players to count as zero-sum (Affisco 1994). For example, in *Monopoly*, only one player wins while all others lose. Conversely, in credit card roulette, only one player loses while all others win.

6.2 Implied zero-sum

In some competitive environments, the zero-sum comparison cannot be explicitly measured, especially in community-based games. Yet, it's naïve to assume that just because zero-sum cannot be clearly measured, it doesn't exist. In this case, players will fill in the missing information by estimating their successes, though not entirely accurately (Yilmaz 2006). For example, imagine a 10,000-member community game, where the only measure of success is being on or off the community's leader board. If only 10 players appear on the leader board, then there is a strong implication that the other 9990 have lost.

6.3 Non Zero-Sum

A competition, which is non-zero-sum, is not truly a competition against other players, but against a system. Although players' progress may be compared, they are measured against universal thresholds and not relatively (Wolfe 1994). A possible disadvantage is that some of the thrill might be removed from winning if it is possible for everyone to win.

6.4 Fairness

Not all competitions are *fair*; this means that not all competitors start the competition with the same set of opportunities to win (Duke 2000). But most games almost always strive to be fair, meaning all players are equipped with roughly equal opportunities of victory (Elsson 2006). The only unfairness in such games should be a player's innate natural ability.

An alternate means of breaking fairness is buying an advantage. The profitability of most social games is based on buying advantages, usually with money as the form of currency / trade (Rouse III 1999). While this can be enormously beneficial for the game maker, it could be potentially dangerous to the game's integrity and may weaken significance of competition dynamics (Crookall 2011).

6.5 Hiding failure

Almost everybody likes to win and almost nobody enjoys losing. This is the very reason that competition is so appealing and paradoxical - the thrill of victory almost simultaneously creates an equal opportunity for defeat (Juul 2005).

Some social games have created an illusion of a zero-sum situation, in which everyone wins. This implies hiding failures by *paying off* defeats by the game system itself (Phillips 2009). For example, if this technique was employed in *Monopoly*, the bank would assist players by paying for their debt each time they landed on a rival's property.

7 Case study

Following is a case study that incorporates the game design elements in order to build on a gamified system.

Problem

There is a serious health related issue in an organization. Employees working for the organization are not fit, hence are prone to fitness and health related ailments. The Employer has to pay significant amount in terms health care benefits. A slight increase in employees' fitness would drastically reduce the money spent. Can you build a gamified system in order to improve employees' health?

There are significant costs reductions if the employees maintain physical fitness. The first step would be to develop and deploy technology infrastructure to build a gamified system. The benefits of investing in a Gamified system outweigh the costs incurred due to obesity and other fitness related issues.

In order to get employees involved, a program called "you are awesome" is initiated. Goals of the program are simple to engage employees in physical activity such as running or outdoor sports. A pass way tunnel is installed at the location where employees enter their office buildings. It allows only one person to pass through at a time. In addition, every employee has to swipe his/her access card in order to pass through the tunnel. As a person enters the tunnel soothing music is played which sates the message "*You are awesome– Please register for MM program and receive 50 reward points*". This is the initial step of ***on boarding***.

Once the employees get to know about the program, gaming social web interface enrolls most of the initial employees those who wish to enroll with their employee ID.

Once enrolled, Employees have ***complete autonomy*** to choose their fitness goals. Autonomy fuels intrinsic motivation. For every goal they set for themselves, there is a particular reward point allotted. For example, it might be running 5 miles a week. Once an employee achieves his/her goal the Gamified system updates the external system – 'The tunnel'. So, next time achiever employees pass through the Tunnel – they are told "*you are awesome, you earned it!*" Those who achieved the goal partially, are encouraged "*you are there*" and for those who failed to start, the tunnel would suggest the names of other employees who "earned it" and would encourage employees to talk the achievers and end with "you too deserve it".

Every employee who achieved his or her goal for a month would be offered a **badge** of "consistency" from then on its more "consistency" badges every month. But after 4 months of winning consistency badges one earns a "super consistency" badge. With that he becomes "fittest employee of the month". His/ Her name is published across the fitness portal (where everyone can see it) as well as the tunnel announces it to every other employee, since they have to pass through it in order to enter the work premises. With another month of achieving the autonomous goal set, the fitness employee of the month is awarded a fitness crown. The employee then gets additional leave and a free vacation to Panama. During the free and paid vacation the employee shoots his experiences through the fitness program and how his/ her own constant autonomous goals on fitness, propelled him/her all the way to Panama. This video is shown to other employees as an *extrinsic motivation* tool to get many more employees on board, pump up the morale and competitive spirit so that other employees too can achieve the their own fitness goal.

The system design above is simply inspirational, but without doubt such a program is trying to induce *behavioral* change, and encouraging the employees to view fitness as *fun.* There are numerous sites such as Fitocracy that work on similar design principles.

8 Enterprise gamification

"Work consists of whatever a body is obliged to do, and play consists of whatever a body is not obliged to do"

- Mark Twain

Enterprise Gamification is the use of game dynamics within corporations to foster a collaborative culture that aligns with business objectives (Werbach and Hunter 2012). When gamification is employed inside the organization for potential benefits such as productive enhancement in call centers it's called Enterprise Gamification (Dignan 2011).

The case for gamification in an enterprise context rests on adding game-like activities to improve non-game contexts. If game elements are properly infused in business processes and in work activities, desired behavior is rewarded, participative processes enhanced, group progress more effectively tracked, and feedback loops that reinforce and accelerate sought after business outcomes could be established (Hugos 2012).

A combination of design thinking (Brown 2012), which is rooted in empathy for the problem context, and user-centric design, a philosophy and process in which the wants, needs, and limitations of end users allow for the creation of more effective products (Tam 2012), gamification has the potential to greatly optimize the way humans are connected to and go about their work (Kaye 2012). In other words, if work is to be done in the best possible way, then it should be designed for the way humans work best (Carroll 1997).

The Gamified system may also be used to improve efficiency. For Example, if the job consists of answering emails, a ***leader board*** indicating the mails answer by a person in comparison to the cohorts performing the same task tends to shoot up productivity.

In general, understanding employee motivations and applying four key principals of gamification (abbr. MATE) can substantially increase chances of enterprise gamification success:

Motivation:

Help others understand what they can achieve

Ability:

Remove barriers to participation by extending people's abilities

Trigger:

A clear invitation to do the right thing at the right time

Evolve:

Support a continuous feedback loop for growth

8.1 Lessons learnt at Microsoft

The Windows Language Quality Game has been a successful productivity game. The motive of the game is to encourage Microsoft employees to apply their core native language skills to help evaluate the quality of Windows translation efforts.

The traditional business setting uses specific language Service provider to perform translation work, and then a secondary Service provider to assess the quality. The challenge was that, for some languages and locales, finding two independent language translation service providers could be difficult and expensive. To address this problem, the Language Quality Game was developed to encourage native speaking populations within Microsoft to do a final qualitative review of the Windows user interface and help identify any remaining language issues.

The *objective* was to make certain a high quality language release and using the diverse population of native language speakers within Microsoft has enabled the pre-release software to be validated in a ***fun and cost-effective way***.

Table 1 illustrates the success the Language Quality Game achieved during interim builds of Windows 7 software. The goal of the game was to achieve reviews of screenshots and dialogs for translation accuracy and clarity. Points were awarded and the peers were able to see their cohorts score and the number of defects logged. Native language speakers were encouraged to play from across Microsoft's diverse, international population of Employees. The results here demonstrate an immense amount of effort applied to the game.

- Game duration: One month
- Total players: > 4600
- Total Screens Reviewed (Points Earned): > 530,000
- Average Screens per Player: 119
- Top Player Screen Reviews: > 9,300
- Total Defect Reports: > 6,700

Success in the game was defined as the amount of coverage of screens across the 36 languages tested. With the incredible response, most languages had several reviewers provide feedback per screen.

Logistically, the international team handled the massive amounts of feedback with *tools* specially designed to display aggregated feedback. The "Moderator" role was filled on a per-language basis

from the *ranks* of the international team, and allowed the review of multiple pieces of feedback per screen quickly and easily. Where there was *obvious consensus* from the game players, a defect report would be created. Reviewed screens *lacking consensus* were quickly reviewed, but at a lower priority and more quickly, such that the screens with the highest likelihood of fixable defects were handled quickly and efficiently.

9 Steps to gamify businesses

9.1 Define business objectives

Why are you gamifying?

How do you hope to benefit your business, or achieve some other goal such as motivating people to change their behavior?

If the gamified system delivery as intended, what specific benefits accrue for the organization?

The individual?

The community?

For example: Foursquare example: social sharing and influence marketing.

9.2 Delineate target behaviors

What do you want your players to do?

What are the metrics that will allow you to measure them?

These behaviors should promote your business objectives, although the relationship may be indirect. For example, your business goal might be to increase sales, but your target behavior could be for visitors to spend more time on your website. The metrics should in some fashion provide feedback to the players, letting them know when they are successfully engaging in the intended behaviors.

9.3 Describe your players

Who are the people that will be participating in your gamified activity?

What is their relationship to you?

Are they prospective customers, employees at your organization, or some other community?

And what are they like?

You can describe your players using demographics (such as age and gender), psychographics (such as their values and personalities).

9.4 Devise your activity loops

Explore in greater detail how you will motivate your players using engagement and progression loops. First, describe the kinds of feedback your system will offer the players to encourage further action, and explain how this feedback will work to motivate the players.

9.5 Don't forget the fun

Although more abstract than some of the other elements, ensuring that your gamified system is fun remains as important as the other aspects. In order to fully explore this aspect of the design process, consider how your game would function without any extrinsic rewards. Would you say it was fun? Identify which aspects of the game could continue to motivate players to participate even without rewards.

9.6 Deploy the appropriate tools

What are some of the game elements involved and what will the experience be like for the players?

What specific choices would you make in deploying your system?

For example, you might discuss whether the gamified system is to be experienced primarily on personal computers, mobile devices, or some other platform.

You might also describe what feedback, rewards, and other reinforcements the players could receive. Finally, think about whether it's tied to your decisions back to the other five steps in the process, especially the business objectives.

10 Critiques and potential risks of Gamification

There might be a point when the players tend to become bored of Gamification to an extent that it just reduces to *gaining points or Pointisification*. When games are designed badly as a consequence it would produce unwarranted behavior.

An airline offers a view of its business model, and frequent flyers that advance those expectations get rewards. An employer offers a view of its goals, and employees who help meet those goals enjoy raises, perks, and promotions. When loyalty is real

it's reciprocal. It moves in two directions. Something real is at stake for both parties.

Gamification replaces these real, functional, two-way relationships with dysfunctional perversions of relationships. Organizations ask for loyalty, but they reciprocate that loyalty with shams, counterfeit incentives that neither provide value nor require investment.

There are also legal ramifications such as privacy. Bad games can be accused of deceptive marketing such as stealth marketing. Besides, there are also questions about intellectual property. Additionally, there is not yet a developed law on virtual goods and virtual points. What happens when some in a game uses lot of effort to build Castle and it just vanishes because of the game redesign or some game mechanic? Can the game solutions provider be taken to the court?

Ultimately, Gamification is a powerful tool. It's like the knife whether in the hand of the surgeon or in the hand of the murderer has the same power however; it depends on what purpose it's put to.

11 Future of Gamification

Gamification is still in its infancy and is undergoing change at extremely fast pace. There are iterative improvements month after month. Last decade, we've seen the development of social layer, a framework for connections, and construction on this social layer is over, it's finished. The framework itself is almost complete and called Facebook. The next Decade we see the emergence of productivity, which hints at the *game layer*. The Social layer is all about connections while the game layer is all about influence.

Game layer and Gamification is about using dynamics, using forces, to influence the behaviour. That has immense potential and it's going to be more vital than the social layer. It's going to affect our lives more deeply and perhaps more invisibly. Hence, it's critical that at this moment, while it's just getting structured we think about it very consciously, and that formalize it in a way that is open, that is available, and that can be leveraged for good.

12 Conclusion

We have analyzed the contextual framework of Gamification, and Game elements. With moving trend towards globalization and stark competition, the next decade is set to witness a shift towards the paradigm *work as fun and play*.

Games have been influential pastime in history and tend to fascinate the human civilization. As the global warming rises we need to find effective and low cost solutions to educate people. Gamified portals have shown to be very effective in this regards.

It does not take a rocket scientist to figure out that the current gaming statistics imply a humongous potential for Gamification. We urge the businesses to capitalize on this platform at its infancy, Go forth and Gamifiy your businesses.

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