INTRODUCTION

TO GAMIFICATION

Content

This whitepaper offers an introduction to the world of Gamification. Containing theories and examples, it provides a framework with which the reader can start implementing Gamification in his own organization.

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1 Introduction

Although the term Gamification was already coined in 2002 by Nick Pelling, the subject has only recently found its way to the marketing world. In recent years Gamification has gained popularity in marketing as shown by several Gamification seminars that are organized around the world, such as the Gamification Summits in the United States and Australia. Some relatively new some websites are dedicated to the Gamification subject, such as Gamification.org and Gamification.co. The E-learning platform Coursera even offers a Gamification course from the University of Pennsylvania.

The increasing popularity of games and the use of them in a business context isn't at all surprising. It's been long since videogames were only played by kids. For many adults, gaming is an important leisure activity. The global games market has grown about 6% last year to an astonishing 70 billion USD.
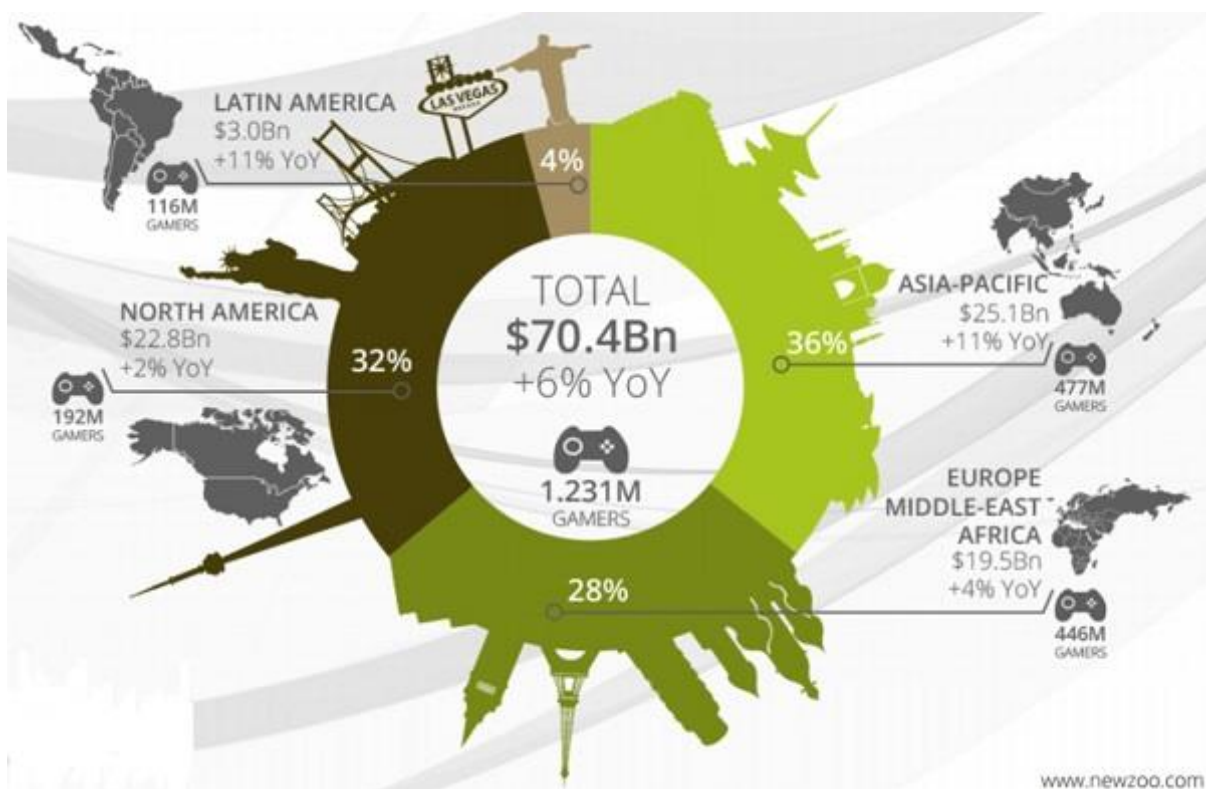
Console games still make up the biggest part of the games market (43%), but mobile is growing fast: 18% of the games market is for mobile games, which is a 35% increase compared to 2012. Social games account for 9% of the game market. Although mobile games don't even account for 20% of the total games market in 2013, 32% of the time spent on smartphones by Android- and iPhone users is for gaming. Facebook only accounts for 18%.

Besides these numbers on the game market and the time spent on mobile gaming, there might be something more fundamental going on: Games are an important part of our life, and everyone plays them. Whether it's with a console or mobile, or in the offline world.

The following video shows exactly how important games are in our daily lives:

- Follow The Foot – Games we play

2 What is Gamification?

2.1 Definition

The field of Gamification is still young and rapidly developing, so there are numerous opinions as to what Gamification exactly is. A popular – and striking – definition is:

> Gamification is the use of game elements and game thinking in non-game environments to increase target behaviour and engagement

Gamification is about using

- **Game elements** (<u>not</u> full-games)
- And **game thinking** (This doesn't need to involve game technique, it's more about the way games are designed and the idea behind games)
- In a **non-game environment** (commercial as well as not-for-profit environments)
- To increase **target behaviour** and **engagement** (target behaviour is central to this definition)

The added value of Gamification isn't limited to companies that are in a commercial environment. It can be used in any company or organization to increase target behaviour.

For example, there's [Foldit](). This is an initiative of several universities, research institutes and companies with the goal to find cures for diseases like HIV/aids and Cancer. To find these cures, it's necessary to understand the protein structures of the human body.

To understand this, the proteins are digitally folded into each other like a puzzle. Because there are so many different possible structures and computers aren't good at solving these puzzles, this is a time consuming job for scientists.

By making the folding of proteins an actual puzzle and adding scores, leader boards and achievements, people all over the world can now help solving this problem. This way several enzyme structures have been found, some of which help finding cures for diseases like HIV/aids.
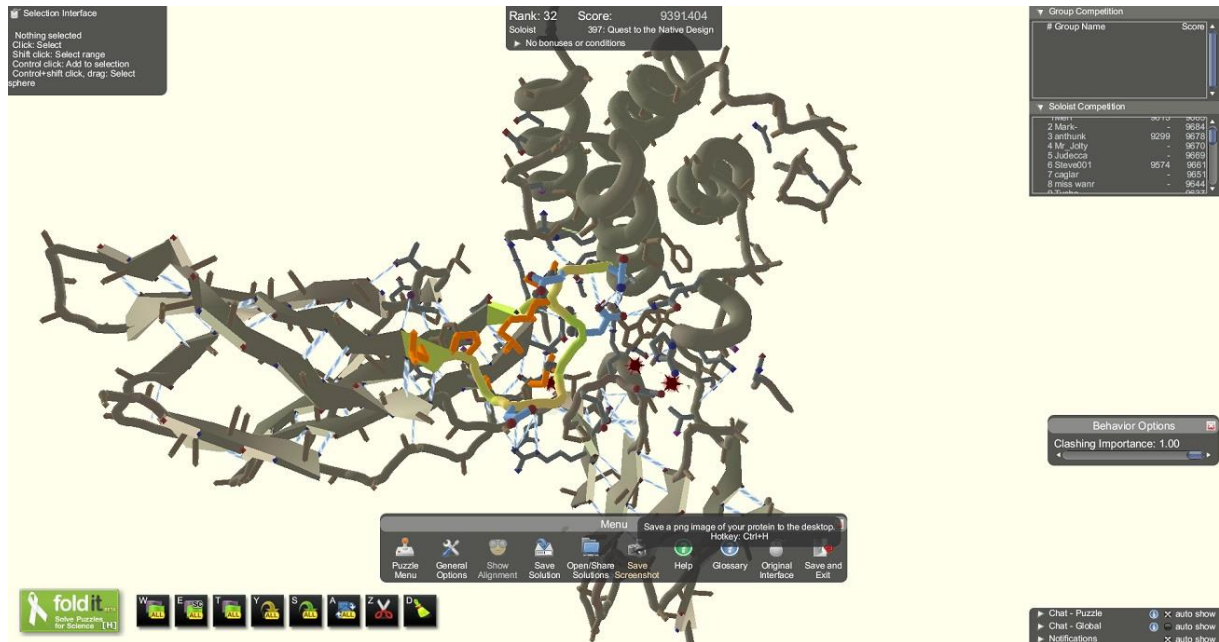
2.2 Game or Gamification?

It's obvious that a game like Wolfenstein 3D or Fifa 2013 isn't Gamification. Gamification is about using game elements outside games. A full game is not Gamification.

Heineken Star player has been developed to engage the viewers of the Heineken sponsored Champions League (soccer) games more with the brand. Although this is a very successful and engaging game, it's a full game and not Gamification.

Besides full games there are several other subjects that can easily be confused with Gamification. Serious games and Playful Design do have some connection with Gamification, but are in fact something else.

To make a clear distinction between the several subjects in this area, the following model has been developed by Deterding, Dixon, Khaled and Nacke in their paper 'From Game Design Elements to Gamefulness: Defining "Gamification".'
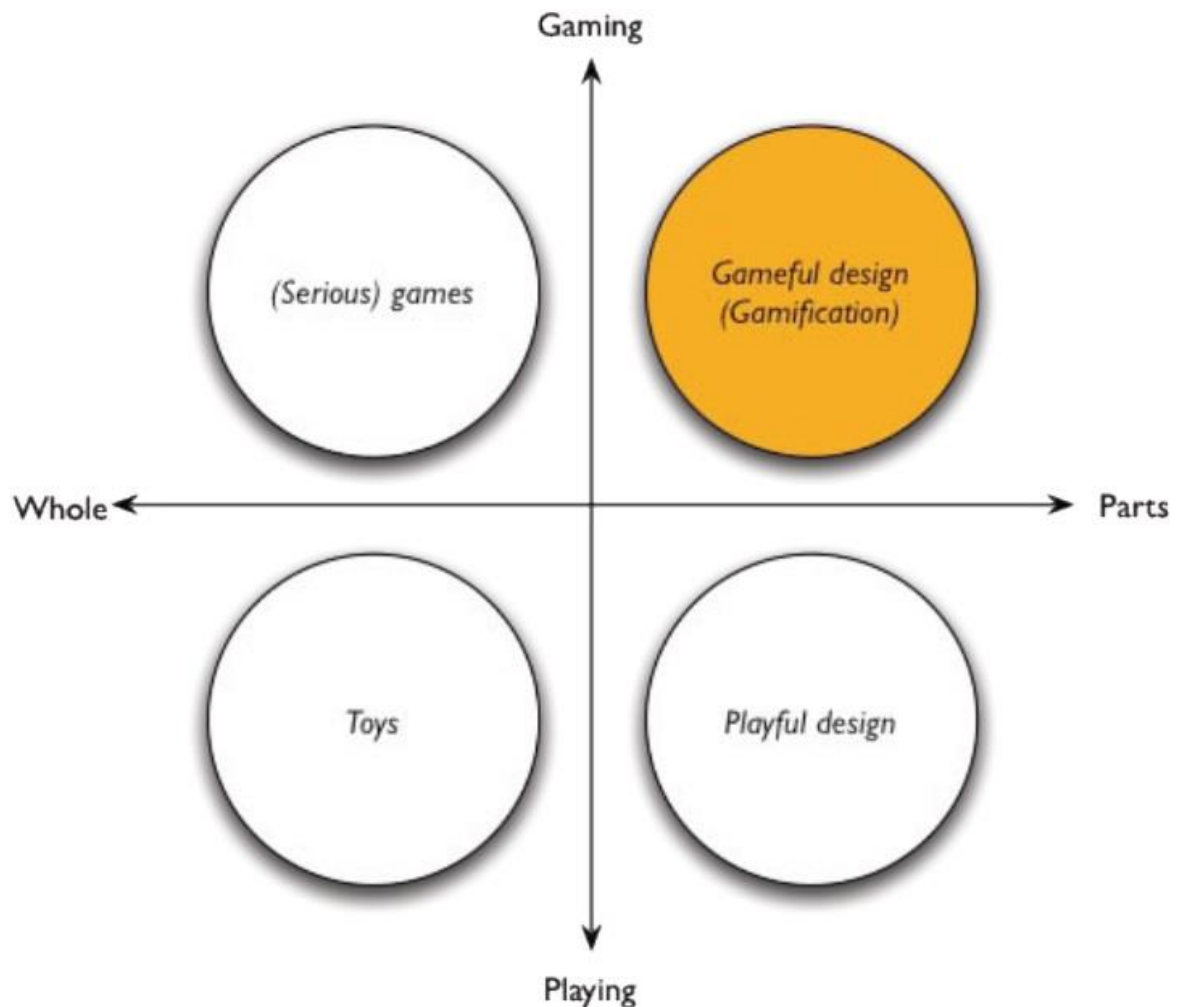
In this model the most important elements in the Gamification spectrum distinguished from each other. One axis differentiates between whole games and the use of game elements, the other axis differentiates between playing and gaming.

2.2.1 (Serious) Games

A game is characterized by rules, restrictions, meaningful choices and working towards a goal, while these things are mostly missing in 'play'. Serious games are a sub-category of games, for which the most important goal is outside of the game itself. This can be the training of pilots with a flight simulator game, or the training of doctors and surgeons with the medical simulator Pulse.

2.2.2 Toys

Toys are on the left side of the spectrum. They offer a whole experience, instead of using just parts of games. Yet there are no specific goals, rules or meaningful choices which make it a game.

Lego, Duplo and K'nex are great examples of this: Everything is possible, like recreate an Escher illusion (see picture on the right). If the competition element is added, a toy will most likely become a game.

2.2.3 Playful design

Playful design is not a whole gaming experience, only parts of games (game elements) are used. Yet, also with Playful design there are no specific goals, rules or meaningful choices that make it a game or Gamification. Fun is the most important element. An example of this is the idea for the 'piano stairs', which has been created for a Volkswagen project. In this project called 'The fun theory', consumers where asked to come up with ideas to encourage positive behaviour by making it more fun.
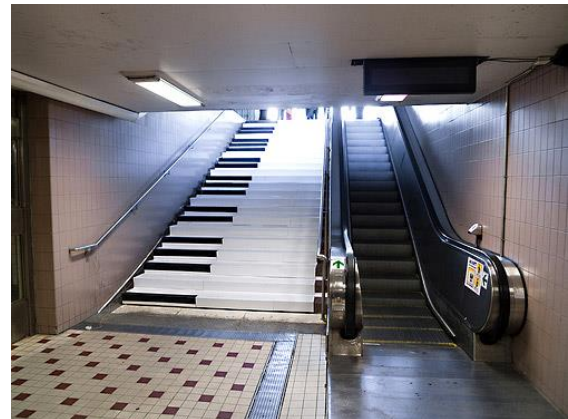
One of the ideas was to encourage people to take the stairs instead of the escalator, by making the stairs look

and sound like a piano. Every touch of a stair results in a different note. When the piano stairs where build, a lot of people initially where inclined to take the stairs. Because for them there wasn't a clear goal, rules or restrictions this is an example of Playful design.

Watch the video:

- [Volkswagen – Piano Stairs](#)

2.2.4 Gamification

Gamification is on the right side of the spectrum. It doesn't offer a whole gaming experience, but some game elements are used. Although sometimes there's some confusion between Gamification and Playful design, there's a clear difference: Gamification offers a clear and specific goal to its users and has rules and restrictions that make it game-like. There's a challenge to reach the goals that have been set. An example of Gamification in action is the start-up PromiseUp. Their app offers people the possibility to turn every promise they make into a bet. Plans to eat healthier? Or to exercise every week? By

turning it into a bet with their friends, PromiseUp users can earn badges and points. The adding of game elements to a specific goal makes it a lot more fun to achieve personal goals.

2.3 Famous examples of Gamification

More and more companies realise that games can be very powerful in changing human behaviour. Therefore it's not surprising that companies like Foursquare, LinkedIn and Amazon.com incorporate game elements on their websites and in their services.

2.3.1 Foursquare

To [Foursquare](#) it's important that users share their location with their friends on a regular basis. When users do that, value is being created for everyone in their social network. Without that the platform – obviously – doesn't have a lot of value to users.

By having people earn badges when they check-in on special places or with a certain frequency, users are motivated to keep using Foursquare on a regular basis. The battle for mayorship in offices, bars and parks adds a competitive and social element that makes the behaviour stick.

2.3.2 LinkedIn

[LinkedIn](#) makes money by selling advertisements. Their ad inventory can be sold for a higher price when the ability to target these advertisements improves. If an ad exactly reaches the people that are in the advertisers' target audience – and no one else – it's worth a lot more than when it has a lot of waste. This makes it important for LinkedIn to know their users very well, and one way to get to know them is for users to fill in their profiles extensively.
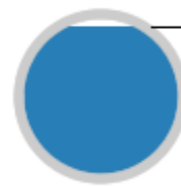
By acknowledging users with 'strong profiles' as Experts or All-Stars, people will be motivated to update their profiles regularly and fill out any information that's missing. Another neat trick is the way the profile strength balloon works: It can never be fully filled. There's always room for improvement.

2.3.3 Amazon.com

Even the world's biggest online retailer thankfully uses the power of Gamification to improve its website.

The opinions of other customers – reviews – have a great influence on the buying decision of (online) customers. The challenge with customer reviews is not only the quantity of reviews, but also the quality. The level of expertise as well as the effort a customer has put in to write a comprehensive review is something that differs hugely between reviews. This means some reviews are a lot more helpful than others.

In order to improve the quality – and quantity - of reviews Amazon.com started the 'Amazon's Top Reviewers' program, which rewards customers for good quality reviews. By simply clicking 'yes' or 'no' next to a review, customers tell Amazon if a review has been helpful for them. The number of reviews a customer has written and the perceived quality translates into points, which are shown on the reviewers profile page. To increase the competitive element, there's also a leader board which ranks the reviewers publicly.

2.4 Gamification and website optimization

Gamification is growing in popularity with online marketers, but mostly in relation to website optimization. That link isn't at all surprising: Website optimization is about improving websites to better influence the behaviour of visitors and Gamification is a tool that can be very helpful in this regard.

When it's clear which behaviour should be encouraged on a website, several techniques can be used to accomplish this. Persuasion techniques and optimizing the usability of a website are often used, but Gamification can also help to stimulate certain behaviour.

Several of these target behaviours have already been discussed in this chapter, like:

- Profile completion (LinkedIn)
- Improve review quantity (Amazon.com)
- Improve review quality (Amazon.com)
- Increase usage frequency (Foursquare)

For each of these target behaviours it can be wise to use persuasion techniques – like Cialdini's weapons of influence – and optimize the usability of the website. However, game elements can also be very effective, if used in the right way.

3 What can Gamification be used for?

As the previous chapter made clear, Gamification is a hot item among online marketers. However, there are more fields besides online marketing, in which Gamification can be of use.

For example, Gamification can be used for:

1. Promotion
2. Employee productivity
3. Behaviour change
4. Loyalty
5. Education

3.1 Promotion

Prezi is a popular alternative to Microsoft PowerPoint. Because the service is hosted online and offers a completely different way of presenting – zooming, turning, one big picture instead of regular slides – it has certain advantages compared to its big competitor.

A lot of marketers – and online marketers in particular – have probably used Prezi at least once. However, because it works completely different than the market standard – Microsoft PowerPoint –it's a big challenge to get the general public to use Prezi. Therefore an important target demographic is students, at colleges as well as universities. After all, they are the professionals of tomorrow. If they are used to work with Prezi, there's a good chance they will continue to do so when they work at a company.

To reach this group, Prezi has started the Prezi Ambassador Program. Students from all over the world can apply for an unpaid position as Prezi Ambassador for their campus. There's only one Ambassador per campus. Each Ambassador writes a plan to make Prezi popular on their campus, for example by doing presentations and workshops for other students. These activities will earn them points, status and Prezi merchandise. Moreover they compete against each other for big prizes like a trip to the Prezi offices in San Francisco and Budapest. Also, the work experience looks good on their resumes and sometimes it's possible to earn college- or university credits. The key game elements Prezi uses in this program are leader boards, points and status.

This way Prezi uses Gamification to get students from all over the world to promote the service and recruit new users.

3.2 Employee productivity

Another use for Gamification is changing employee behaviour: Employees can be encouraged to share knowledge, invest in personal development or do their work in a certain way.

3.2.1 Nitro for Salesforce

The Nitro for Salesforce app is developed by Bunchball, specifically for the Salesforce platform.

Salesforce is a Cloud platform that can be used to make organization's processes more efficient. For example CRM processes, inventory management, sales, internal collaboration and HR services.

Nitro for Salesforce can be used within the Salesforce platform to gamify the sales process. It allows managers to give points and rewards for specific behaviour and to have employees compete for trophies, badges and status. This way the manager can change the way the sales team operates.

For example, a manager can give points (or experience) for:

- Sales / revenues
- Completed customer profiles
- Sharing specific information with colleagues
- A certain amount of cold calls before the end of the week
- Visiting a number of clients which the account manager hasn't visited for at least a month

Nitro uses trophies, leader boards and a points system. Also it's possible to create specific quests that employees have to complete individually or as a team. For instance, when a certain product category doesn't reach its sales target, a manager can create a quest to get more leads, appointments and or sales in this category. Or, when sales are always slow in summer, a summer competition can be created between districts to try to compensate for the seasonality.
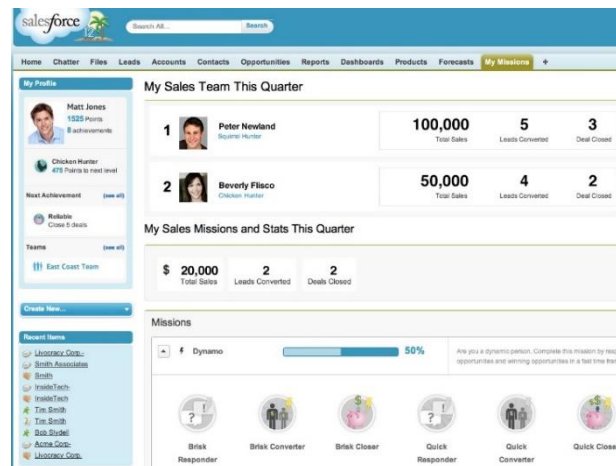
3.2.2 Work.com

Work.com – previously Rypple – is a successful start up in the field of performance evaluation and talent development, now owned by Salesforce.

Instead of an assessment cycle in which employees get two feedback moments a year, work.com tries to create an environment of continuous feedback. Employees and managers can set goals, on which the managers as well as other employees can give feedback. When employees reach their goals they earn points and badges. Because the app is available via desktop as well as mobile, employees are always up to date and able to give feedback to each other. Among the clients that have arranged their HR cycle with Work.com are companies like Facebook and Spotify.
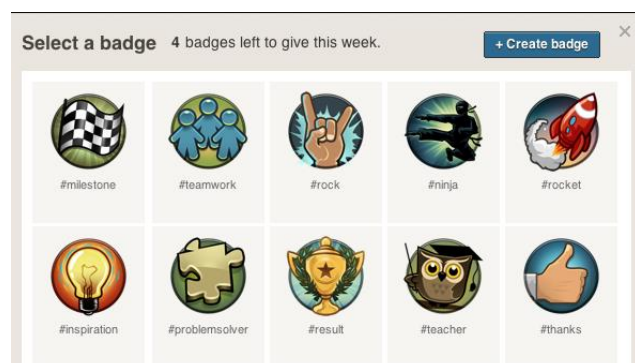
3.3 Behaviour change

Gamification works best when it stimulates behaviour that people already pursue or find worthwhile. Behaviour that doesn't come easy, behaviour for which people have to work. For example healthy living, finding a job or keeping to the speed limit.

3.3.1 Foodzy – Healthy living

Foodzy is an Amsterdam start up that helps people finding the perfect balance in their diet. A Foursquare for food you might say. Everything a user eats, he / she can check-in with the Foodzy app. Foodzy will then calculate and report the number of calories per item or per period of time. Users can set goals for healthy living, compare and compete with friends and earn badges for healthy – and sometimes unhealthy – behaviour. Also the app can be connected to hardware like the Fitbit – which measures movement and calorie burning – to provide as much insight as possible in the users' health.

3.3.2 UWV – Finding a job

The UWV is a Dutch government organization that - among other things like paying out unemployment benefits - helps people to find a job. It's their goal to get people that are unemployed a back to work as soon as possible. To increase chances on employment, it's important to have a relevant and complete resume, to look for work in the right places and to be well prepared for interviews. That's not something that comes easy to everyone, especially to people that are new on the job market. This is why the UWV aims to help young people find a job, using the gamified program 'Expeditie Work'.

In Expeditie Work, players have to complete several levels, which contain quizzes, challenges, assignments and mini-games that help them find a job. They learn about the right places to look for jobs and how to approach finding a job, they make their own resume and practice interviews.

Expeditie Work shows that the dividing line between Gamification and Serious Games can be very thin. A full game experience is offered, yet a lot of the activities the player must undertake – like applying for jobs - are outside the digital game. Even the end goal of finding a job is not within the game.

3.3.3 The Speed Camera Lottery

The Volkswagen project 'The Fun Theory' has produced more than just the Piano Stairs. Another interesting winner was the Speed Camera Lottery, which is an example of Gamification. The Speed Camera Lottery starts with one simple question: Wouldn't it be more fun and more effective to reward people if they keep to the speed limit, instead of just punishing those who don't?

The Speed Camera Lottery works as follows: Every car that drives past the speed camera is photographed. Every time someone passes the camera and keeps to the speed limit, he or she enters the lottery to win a cash prize. The prize is paid from the fines to the people that don't keep to the speed limit.

In Stockholm an experiment with the Speed Camera Lottery has been performed. During this experiment the average pace of passing cars went down with 22%.

Watch the video:

- [The Fun Theory – The Speed Camera Lottery](#)

3.4 Loyalty

> A person who feels loyalty to a nation, cause, or person feels a sense of allegiance, commitment, dedication toward them

Loyalty is what most marketers are looking for in their customers. When translated into actions it can mean repeat purchases or contract renewals. The following are conditions for- or predictors of loyalty:

- Word of mouth
- Product ownership – more products per person predicts a higher loyalty
- Brand knowledge and brand preference
- Engagement

These are all forms of behaviour which Gamification can help to encourage. A lot of companies use loyalty programs already. For example Texaco has Rocks', Jet Blue has TrueBlue and Amazon has Prime. Yet, a loyalty program isn't necessarily Gamification. After all, where are the game elements in Rocks? Or the competition and social interaction in Prime? Rewarding customers for repeat purchases can have a significant effect on loyalty, but it isn't necessarily Gamification.

GetGlue is a service that encourages loyalty for TV-series and films. The service works a lot like Foursquare, but instead of checking in on locations the users check-in TV-series and films. Users that watch certain TV-series often, or have watched a lot of series in the same genre can earn badges. Also the most loyal followers of specific series can be rewarded with previews or behind the scenes material.

The social aspect enhances the effect it has on loyalty, as users share their 'accomplishments' and check-ins on GetGlue via Facebook and other social networks. They can also follow each other, discover new series and discuss episodes and plot twists.

3.5 Education

In general, players are very involved with the games they play. This involvement – or engagement – is one of the great challenges in educations. To motivate students to study and keep them engaged until the end of a semester isn't easy. Educational institutions could learn from games in this regard.

Education might even be the profession which can progress most by implementing Gamification techniques, because of the parallels between learning and gaming. In gaming it's all about completing levels, overcoming obstacles and obtaining certain skills, whereas education revolves around progression to the next grade, passing exams and obtaining knowledge and skills.

Introduction to Gamification by **Piet van den Boer**   -   http://www.linkedin.com/in/pietvandenboer/

Another element that's important in both cases is social interaction. This is integral to classrooms and one of the things that makes games engaging.

All these similarities to games considered, it should be a piece of cake to motivate and engage students. Although it's not that simple, there are some basic game elements that are often used in successful application of Gamification in education:

- **Feedback** – Instant feedback, make sure the students always know how they are doing
- **Gaining skills and experience** – Start at 0% and progress to 100%
- **Rewards** – For example badges and trophies

Gabe Zichermann names a few other interesting examples in his Tedx Berlin presentation.

Watch the video:

- [Gabe Zichermann – Changing the game in education](#)

3.5.1 Classroom Game Design by Paul Andersen

Paul Andersen is a biology teacher in Montana. He has designed his class as a game and named it Biohazard 5 (like the well-known videogame). His students all have a tablet and study at their own pace using video lectures, texts, assignments, quizzes and experiments. They get real-time feedback to what they are doing and see exactly what their progress is. By completing assignments, assignments and quizzes they earn badges and points. A leader board shows them how they score compared to their fellow students.

Watch the Tedx talk video:

- [Paul Andersen – Classroom Game Design](#)

3.5.2 Codecademy

Codecademy applies Gamification to teach people to code. On this free online platform everyone can learn the basics of JavaScript, HTML5 and PHP. The emphasis is on small bits of explanation, which the user immediately applies in assignments. These small steps and real-time feedback help guide the user through increasingly complex matters to finally mastering the basics of a programming language.

By completing assignments and challenges, the player can earn points and badges. The player can also join discussion groups about certain subjects.

4 What's so engaging about games?
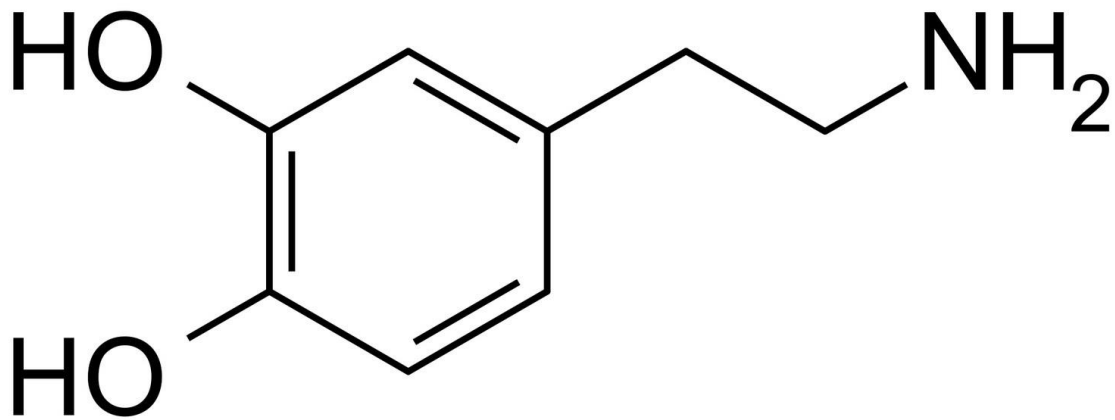
Game designers seem to have found the 'holy grail' of engagement, which marketers have been searching for a long time. Great games are able to captivate and engage players for a longer period of time. Who hasn't played a game like Farmville, Angry Birds, Temple Run or Candy Crush once and found it hard to put away? "One more level", or "5 more minutes until these crops are ready".

Well-designed games give players a feeling of joy and happiness. They make sure players are involved and that they want to continue this feeling. To know if this can also be used in Gamification, it's important to know how this works exactly.

Every time someone gets a reward, the brain creates a substance called dopamine. This substance causes a feeling of pleasure, happiness and wellbeing. The amount of dopamine created is larger when the perceived degree of challenge, achievement and satisfaction are larger.

Because of the great challenge and achievement, a person will feel very satisfied – and create a lot of dopamine – running a marathon. Playing a videogame like Fifa 2013 can also give satisfaction in this way, although not as much as running a marathon. An important difference is that these videogames continuously fire little shots of dopamine, by offering small challenges and possibilities to achieve things, which gives the players satisfaction.

So, games can make people feel good, by continuously offering challenges that can be over won, to ultimately create dopamine. Yet, a big part of games isn't about winning, it's about losing or failing. After all, it takes a while before the player has gained the skills to complete a level. That's why it's important to make sure the 'challenge – satisfaction cycle' isn't too long. This can be done with small challenges, bonuses or even random surprises. When another shot of dopamine has been fired, the player is good to go again.

5 Gamification Design Framework

[Gartner](#) predicts 80% of all Gamification by companies in 2014 will not yield the desired results. The most important reason for not achieving the targets is a badly designed gamified system.

As with most marketing efforts, effective Gamification needs a plan: It's important to think about the business goals, the target audience and the target behaviour. Instead of immediately starting to implement Points, Badges and Leader boards, effective Gamification is benefited by a well-designed Gamified system.

Therefore, Professor Kevin Werbach of Pennsylvania University has created the Gamification Design Framework. This framework helps marketers and other professionals to step by step design a Gamified system that encourages certain behaviour and stimulates engagement. Starting with the business goals, every aspect of a Gamified system is covered to finally decide which game elements should be applied in the system.

The 6 steps in the Gamification Design Framework are:

1. Define business objectives – How should Gamification benefit the organisation? What's the ultimate business goal?

2. Delineate target behaviour – What behaviour is expected of players? What behaviour should be rewarded?

3. Describe the players – What is the target audience? Who should be playing this Gamified system?

4. Devise the activity loops – These make sure the players keep playing

5. Don't forget the fun – Where's the fun in the Gamified system?

6. Deploy the appropriate tools – What elements from the Gamification toolbox are necessary to design the system?

Each of these steps will be explained further, using the example of Amazon's Top Customer Reviewer program.

5.1 Define business objectives

As with every activity an organisation undertakes, designing Gamification starts with setting objectives. This should not be confused with delineating target behaviours, which is next.

Before a gamified system is designed, the following question should be answered: How should Gamification benefit the organisation?

Business objectives can vary, but they are always about the end result. Increasing the number of active users is not a business objective, earning more from advertisements is.

Examples of business objectives are:

- Increasing web shop sales
- Increasing customer loyalty
- Increasing average order value
- Decreasing costs of development for new products
- Increasing quality of innovations
- Increasing knowledge level of students

- Decreasing customer service costs
- Increasing customer service quality

As the examples above show, business objectives are mostly about increasing or decreasing outcomes like revenue, costs and quality. For each of these objectives there are several forms of target behaviour that can contribute.

Amazon Top Customer Reviewer program
A few business objective are likely to be the basis of this program:

- *Increasing conversion rate*
- *Increasing trust in the webshop and online buying at Amazon.com*
- *Increasing customer engagement*

5.2 Delineate target behaviour

The second step in the Gamification Design Framework is delineating the target behaviour that's necessary to achieve the objectives that have been set. Most business objectives can be divided in several forms of target behaviour.

This behaviour is what the gamified system is designed to encourage and this is what the Key Performance Indicators are focussed on. That's why it's important to describe this behaviour as specific as possible and to make sure it's measurable.

When the business objective is to increase customer loyalty, several forms of target behaviour can indicate or contribute to success. For instance the level of engagement a customer exhibits, the buying frequency and if a customer actively promotes the company are forms of target behaviour that are very interesting in this regard. Translated into Key Performance Indicators these target behaviours would look like this:

- Average number of visitors per day / average number of visitors per month - **engagement**
- Average number of referrals per customers - **promotion**
- Number of likes and shares per Facebook message / Number of Facebook friends - **promotion**
- Average number of products per sale – **product ownership**
- Average buying frequency

As shown above, most of these forms of behaviour are expressed as ratios. Absolute numbers like the number of visitors on a website don't always give enough information, but when set against the right metrics it can give a good indication of engagement.

This list is all but complete, not even for the business objective loyalty. The delineated target behaviour depends on a lot of factors, like the type of company, the type of product and the business objective.

Amazon Top Customer Reviewer program
The metrics used to measure target behaviour in the Amazon.com case would include:

- *Number of reviews per customer*
- *Average review quality*

5.3 Describe the players

To decide how to design the gamified system it's necessary to know who the players will be. After all, a 10-year old child has other interests than a 40-year old adult. There are a lot of elements that can impact which game

elements are most suitable to apply in the gamified system. For instance cultural aspects, the degree of innovativeness of a person and the social class someone belongs to can be of influence.

In addition to the common marketing segmentation – demographic, psychographic, social-economic etc. – Richard Bartle has developed a player-type segmentation. This segmentation was first developed to describe World of Warcraft players, yet has proven to be generally useful in game design.

The Bartle player-type model exists of 4 player-types which are placed on two axes:

1. Does the player focus on the game world or on other players?
2. Does the player care most about acting or about interacting?
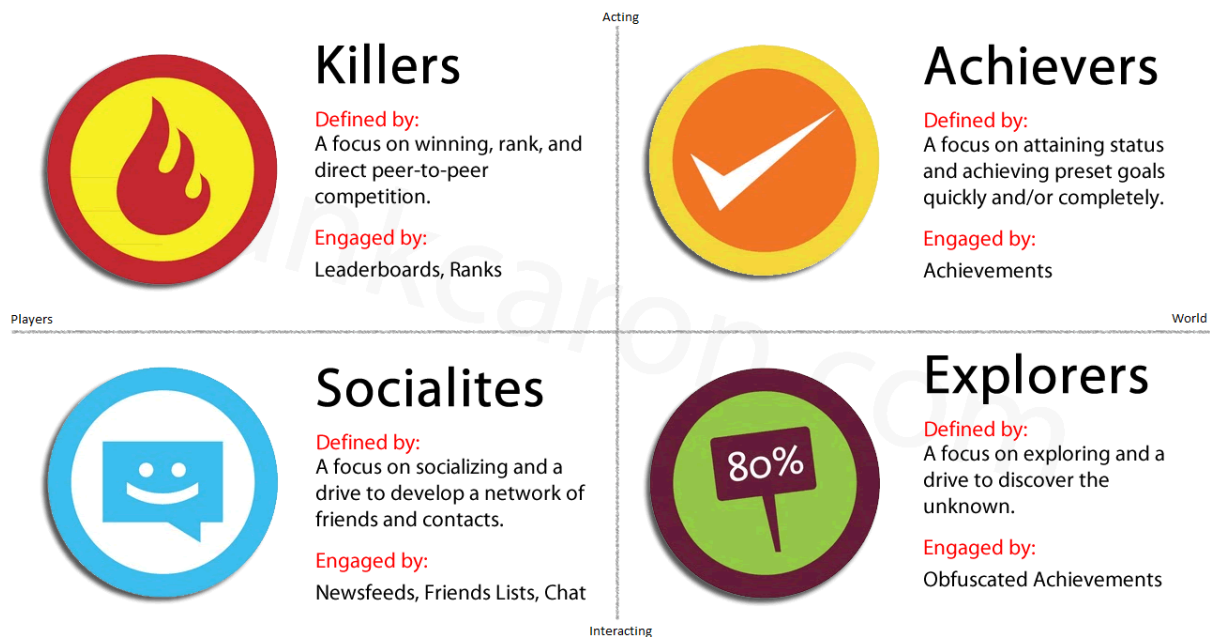
A game shouldn't focus on just one player-type to be successful. World of Warcraft provides each of the four player-types with a comprehensive gameplay. The goal of segmenting is the realization that more than one player-type exist and that each of these types requires its own approach. When the choice is made, the gamified system can be designed more effective for these specific player-types.

Bartle has created these player-types using a test, which has been taken by more than 200.000 people to date. The test can still be taken online on GamerDNA.com.

Amazon Top Customer Reviewer program
The Amazon program seems focussed mainly on killers and achievers, because of the emphasis on status and earning points. The possibility to follow people might interest the socialites, but there's not much in the program for explorers.

5.4 Devise the activity loops

After setting the business objectives, delineating target behaviour and deciding the target audience it's time for the next step in designing a gamified system: Engagement.

Engagement is one of the most important benefits of Gamification, yet also something that's very hard to achieve. Some things should be taken into account when designing for engagement:

1. Engagement loops
2. Onboarding and progression loops

5.4.1 Engagement loops

To get people to play a game or enter a gamified system once is one thing, but to keep them interested over a long period of time is something else. To achieve this, a gamified system should have engagement loops. These encourage reward players when specific behaviour is shown and encourage them to keep showing this behaviour time and time again.

An engagement loop exists of 3 components and can be repeated endlessly.

1. Motivation
2. Action
3. Feedback
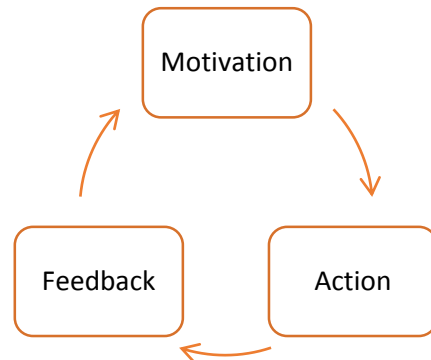
First there needs to be a **motivation** to show specific behaviour. If this motivation isn't present, this can be sparked with a popup or message in the gamified system. The **action** should be as easy as possible, and **feedback** should be instant and specific. This results in a higher motivation to show the target behaviour again, and again.

An example of an engagement loop is LinkedIn's progress bar, which encourages people to keep updating their profile. This works as followed:

First of all **motivation** is sparked with message asking a person to update his profile with credentials of former employers. Often accompanied with a reference to other LinkedIn members in his network that have already done this. The performing of this **action** is made very easy, by moving the entry field just beneath the question so the person can immediately update his credentials. After performing the action, **feedback** is instant and specific: "Your profile strength is now 80%!" This sparkles the motivation to undertake another action to further complete the LinkedIn profile.

5.4.2 Onboarding and progression loops

At first play it seems nearly impossible to defeat the Barcelona squad in Fifa 2013's World Class mode. The most difficult missions in Grant Theft Auto IV are so difficult that a newbie would never finish them. Yet most players eventually defeat Barcelona in World Class mode and buy a nice suite in Liberty City's most expensive hotel.

To make sure players grow in a gamified system, two thing should be well designed:

1. Onboarding
2. Progression loops

Onboarding

Most people don't exactly know how a game works when they play it for the first time. By explaining the most important elements and concepts of the game at the start, the player is sufficiently equipped to play the game to satisfaction.

Onboarding is often done by having the player carry out small assignments like creating / updating a profile, looking up something in the help section or using specific tools in the game. By having the player experience how everything works step by step, it's prevented that the player quits the game before he has really started playing.

Progression loops

Understanding the basics of a game isn't enough to defeat the final boss. The challenge of an end boss is too big for a beginner and would only work discouraging.

Progression loops are steps in difficulty that are just small enough for the player to overcome, but big enough to be perceived as a real challenge. After a few of these steps, a final boss or a big assignment is presented, which shows the player he has really grown in the game.

Source: Specrunner

The LinkedIn progress bar example is also relevant for this subject. The small engagement loops make sure actual progression is made towards a complete profile. Yet to fill out the whole profile at once could be discouraging, so the engagement loops turn this into small assignments like 'upload a photo', 'link with your colleagues' and 'add your skills'.

Amazon Top Customer Reviewer program
Amazon.com gives immediate feedback after each review: How much points has the reviewer earned? And what is his ranking after this review? When a review is rated by a customer, this is immediately processed and visible in the ranking. This helps motivate users to review products and rate reviews.

5.5 Don't forget the fun

Fun is an abstract and subjective concept. It's not very hard to decide whether something is fun, yet the reason why is a lot harder to determine. Nevertheless it's important to make sure players have fun while playing the game, otherwise they will quickly drop out and any change in behaviour won't last.

Ask the following question to decide if the gamified system is fun:

> Would people play the gamified system is all of the extrinsic rewards were removed?

5.5.1 4 sorts of fun

Nicole Lazzarro has researched the reasons why people have fun playing games, besides the storyline. In her paper 'Why we play games: Four keys to more emotion without story' she distinguishes 4 kinds of fun. These 4 'Keys to emotion' are ways in which players can be emotionally involved with games or gamified systems. The most successful games provide in at least 3 of these Keys.

In a gamified system too, it's sensible to have good look at these Keys and to decide which should be present in the system and how that should be done. The 4 Keys are as follows:

1. Hard fun
2. Easy fun
3. Serious fun (Altered states)
4. The people factor

Hard fun
Emotions from meaningful challenges, strategies, and puzzles

Hard fun creates emotion by focussing the game experience on reaching a goal. The achieving or not achieving of objectives gives feelings of frustration and personal victory (or Fiero, as Lazzaro calls it).

Players that enjoy hard fun, like to:

- Play to see how good they are
- Play to beat the game
- Have multiple objectives
- Requiring strategy rather than luck

Easy fun
Grab attention with ambiguity, incompleteness, and detail

Easy fun is all about discovering the game world. It responds to the players' curiosity. The attention is held by feelings of wonder, awe and mystery.

Players that enjoy easy fun, like:

- Exploring new worlds with intriguing people
- Excitement and adventure
- Feeling one with their characters
- To figure things out

Serious fun (Altered states)
Generate emotion with perception, thought, behaviour, and other people

When one of the major reasons to play a game is the way the game makes a player feel inside, we're talking about serious fun. Players have a certain goal when playing the game, varying from 'blowing of steam after work', to 'feeling better about myself'. This is accomplished by all of the game elements that influence the players' in-game character. A lot of games have a certain amount of serious fun in them, but in MMOG's (Massively Multiplayer Online Games) this is a very important element because of the social complexity in these games.

Players whose enjoyment focuses on serious fun like:

- Clearing their mind by clearing a level
- Feeling better about themselves
- Avoiding boredom
- Being better at something that matters

People fun
Create opportunities for player competition, cooperation, performance, and spectacle

For a lot of players gaming is about playing with others. Cooperation and competition are important emotions which make people continue playing a game. Players that find this important, see games primarily as tools for social interaction.

These players say that:

- It's the people that are addictive, not the game
- Games are an excuse to invite their friends over
- They don't like playing games that much, but it's a fun way to spend time with their friends
- They don't play, but it's fun to watch

In a presentation on GSummit SF 2012, Nicole Lazzaro elaborates further on the 4 Keys. Watch the video:

- [Nicole Lazzaro – The future of Gamification is emotion](#)

5.5.2 Encouraging fun

Depending on the target audience and business objectives, the following elements can help making a gamified system more fun:

1. **Design** – The choice between a business-like design or a design with some playful elements can make a huge difference
2. **Language** – How are the players addressed? Cold and distant, or warm and personal? Flickr greets its users in a different language every day: Howdy, Aloha, Velkomið or நல்வரவு ?
3. **Social interactions** – Friends make a lot of things a lot more fun, Gamification included. For instance, it's more fun for players to share their health data with Runkeeper when it's possible to compare the resulting Health Graph with those of their friends
4. **Humour** – This can be anything. A badge, a challenge or a reward. Look at Foodzy, which awards players a Hangover badge when checking in a minimum of 8 alcoholic beverages in one day

Amazon Top Customer Reviewer program

Although social interaction isn't very prominent in the Amazon case, social comparison is an important part of the fun. By focusing on points, status and social recognition, the most prominent kinds of fun are 'hard fun' and 'the people factor'.

5.6 Game elements

Only in this last phase it's time to look at the game elements. After going through all of the previous steps, it should be very clear which game elements are to be applied in the gamified system.

Deciding which elements should be used is done 'from top to bottom'. First the outline is made, then it will be filled in step by step.

The best way to picture this is a pyramid, like the one pictured below:

Dynamics
The big picture

Mechanics
Processes that bring the game forward

Components
Specific instances of dynamics and mechanics
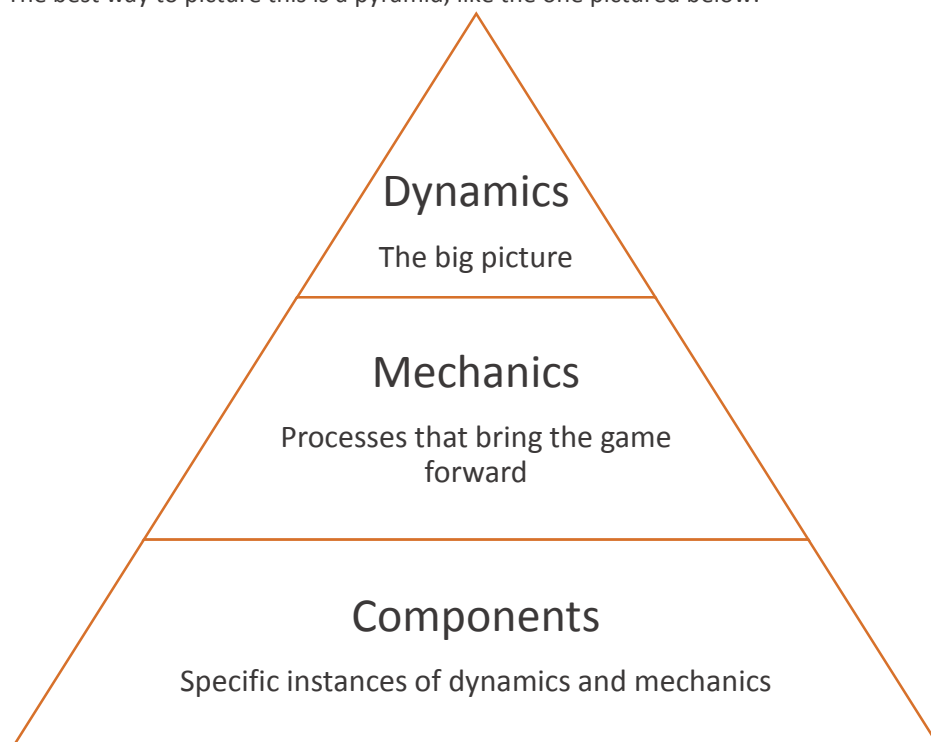
5.6.1 Dynamics

The dynamics form the big picture. These are not the rules that apply within the game, but the hidden elements of the game or gamified system. Two questions need to be answered in this phase:

1. Which dynamics will be used
2. How will they be used?

Dynamics
Constraints – Limitations in choices to make them meaningful
Emotional reinforcement
Narrative – Consistent graphical experiences, creating a sense of flow and using story ideas
Progression
Relationships

6.5.2 Mechanics

One level below dynamics the choice for mechanics is made. These are an elaboration of the chosen dynamics. For each dynamic element one or more mechanics can be used.

Mechanics	
Challenges – objectives to reach	Resource acquisition
Chance	Rewards
Competition	Transactions
Cooperation	Turns
Feedback	Win states

6.5.3 Components

The components form the last – and most specific – level. These are the specific instances of elements which have been chosen previous levels. By choosing these last, a consistent and coherent experience is created.

Components	
Achievements	Leader boards
Avatars	Levels
Badges	Points
Boss fights	Quests
Collections	Social graph
Combat	Teams
Content unlocking	Virtual goods
Gifting	

Amazon Top Customer Reviewer program
The most prominent game elements in the Amazon program are points, avatars, the Leader board and the social graph.

6 Rewards

Gamification and rewards are often thought of as inseparable. Yet although rewards are an important aspect of Gamification, the wrong use of them can even prove counter effective.

6.1 Overjustification

In self-perception theory there's an effect called the overjustification effect. This is what happens when an external incentive reduces – or even removes – the intrinsic motivation to do something. This effect is a demotivation because of an external reward.

In research which shows this effect, three groups of toddlers - 3 to 5 years – were asked to draw a picture. An activity for which toddlers in general have an intrinsic motivation, they like doing it. The first group was promised a reward – a sticker – when they were done, the second group wasn't promised anything but did receive the sticker afterwards. The last group wasn't promised anything and didn't receive any reward afterwards. The results were very interesting: The first group showed significantly less drawing activity compared to the other two groups, which showed 'normal drawing behaviour'. The first group also didn't like drawing as much and the quality of their drawings was significantly less than those of the other groups.

This effect has also been shown with adults. A childcare company had the following problem: A lot of parents picked up their children late. This meant the employees had to stay late and the children had to wait for their parents when the activities had already finished. To resolve this problem, a fine was set for parents that were more than 5 minutes late to pick up their children. The result: The problem only got worse, more parents were late more often. Guess what? The parents found a justification for being late in the fine. The fine diminished their feelings of guilt and decreased their intrinsic motivation to come on time.

In Gamification rewards also bear the risk of overjustification, or the focussing on extrinsic motivation. This can stand in the way of actual, lasting change in behaviour. In Taiwan for instance, there was a problem with dog poo on the streets. To get people to clean up the dog poo, Gamification was used. Participants of the Poo Lotto could win prizes when they cleaned up dog poo. The result: After the campaign had ended, everyone just left the dog poo on the streets again, because there wasn't any intrinsic motivation. By focussing too much on extrinsic motivation with prizes, no lasting change in behaviour had been achieved.

Restraint is therefore advised when using rewards in Gamification. When enough intrinsic motivation exists, it's often more sensible to instigate this than to face it with an extrinsic reward.
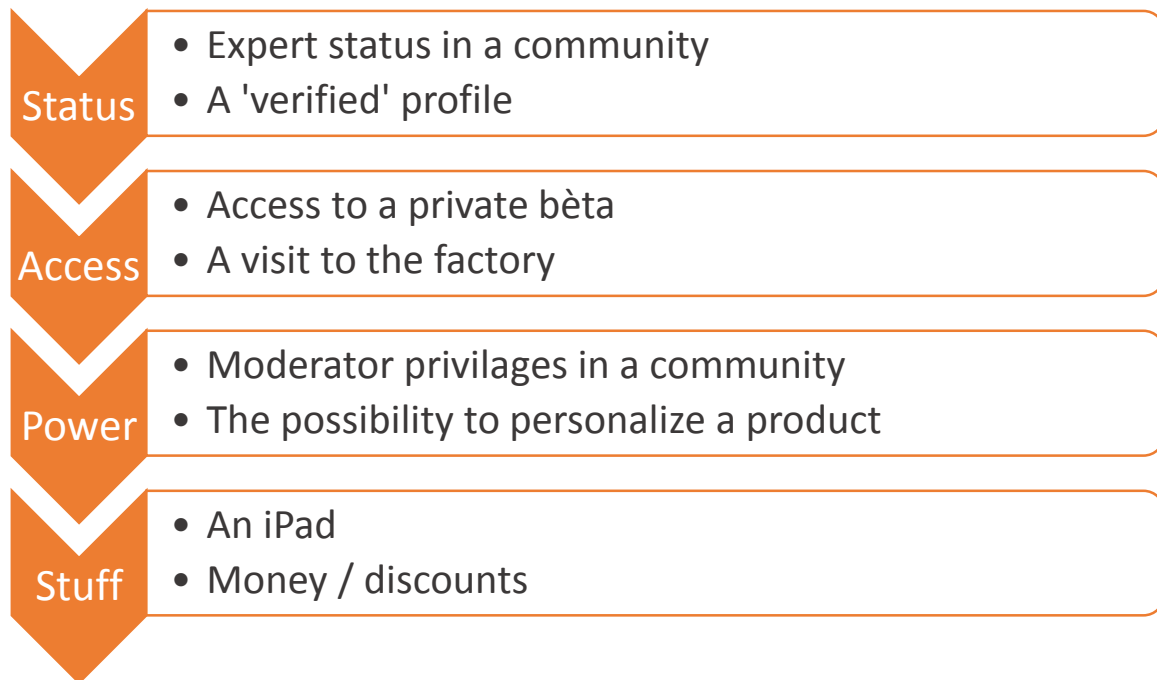
6.2 SAPS model

The risk for overjustification and the focus on extrinsic motivation doesn't mean rewards can't work at all. They can be very effective, if used correctly. However there is a difference in effect between different types of rewards. Gabe Zichermann developed the SAPS model which classifies rewards in four categories:

1. Status
2. Access
3. Power
4. Stuff

Two 'rules' apply to this classification:

- The 'stickiness' decreases from 1 to 4. In the long term Status will be more effective than Stuff
- Costs increase from 1 to 4. In general, Stuff is more expensive than Status to give away

So although Stuff is often the easiest to give away –you don't need to be very creative to give away an iPad –, most of the times there's a better reward available. Below the model is visualized with some examples of each type of reward.

Status
- Expert status in a community
- A 'verified' profile

Access
- Access to a private bèta
- A visit to the factory

Power
- Moderator privilages in a community
- The possibility to personalize a product

Stuff
- An iPad
- Money / discounts

Links

Articles

- [From Game Design Elements to Gamefulness: Defining "Gamification"](#)
- [Gartner about Gamification](#)
- [Newzoo – Global monetization of games](#)
- [Flurry 5 year report: It's an app world. The web just lives in it](#)
- [Frank Caron – On mapping Bartle's player types to employees](#)
- [GamerDNA – Bartle test of gamer psychology](#)
- [Specrunner – Coursera Gamification course wrap-up](#)
- [Gabe Zichermann – Saps model](#)
- [Piet van den Boer – Website optimization in 6 steps](#)

Blogs

- Gamification Corp - http://www.gamification.co/
- Gamification.org - http://gamification.org/

Courses and books

- Pennsylvania University - https://www.coursera.org/course/gamification
- For The Win - http://www.amazon.com/Win-Thinking-Revolutionize-Business-ebook/dp/B009NFNVUE
- Game Based Marketing - http://www.amazon.com/Game-Based-Marketing-Customer-Challenges-ebook/dp/B003C2SOWO

Events

- Gamification Summit United States- http://gsummit.com/
- Gamification Summit Australia – http://gsummit.com/au2012

Examples

- Amazon.com – [Amazon's Top Customer Reviewers](#)
- Runkeeper – [Health graph](#)
- Prezi - [Ambassador program](#)
- Bunchball – [Nitro for Salesforce](#)
- [Foodzy](#)
- [GetGlue](#)
- Work.com – [Spotify](#)
- Work.com - [Facebook](#)
- [Foursquare](#)
- [LinkedIn](#)

Videos

- [Follow the Foot – Games we play](#)
- [Nicole Lazzaro – The future of Gamification is emotion](#)
- [Volkswagen – Piano stairs](#)
- [Gabe Zichermann – Changing the game in education](#)