Gamification and User Engagement

An Overview

ENTERPRISE PRODUCTIVIT

Contents

Context

With the buzzwords "Artificial Intelligence" gaining momentum over the last few years, we see that machines are getting closer to mimicking humans. While we often hear the so-called thinktanks raising concerns over the increased use of artificial intelligence in human lives and consequent effects on the future of the human race, it is common to notice discussions around what machine can do and what they cannot.

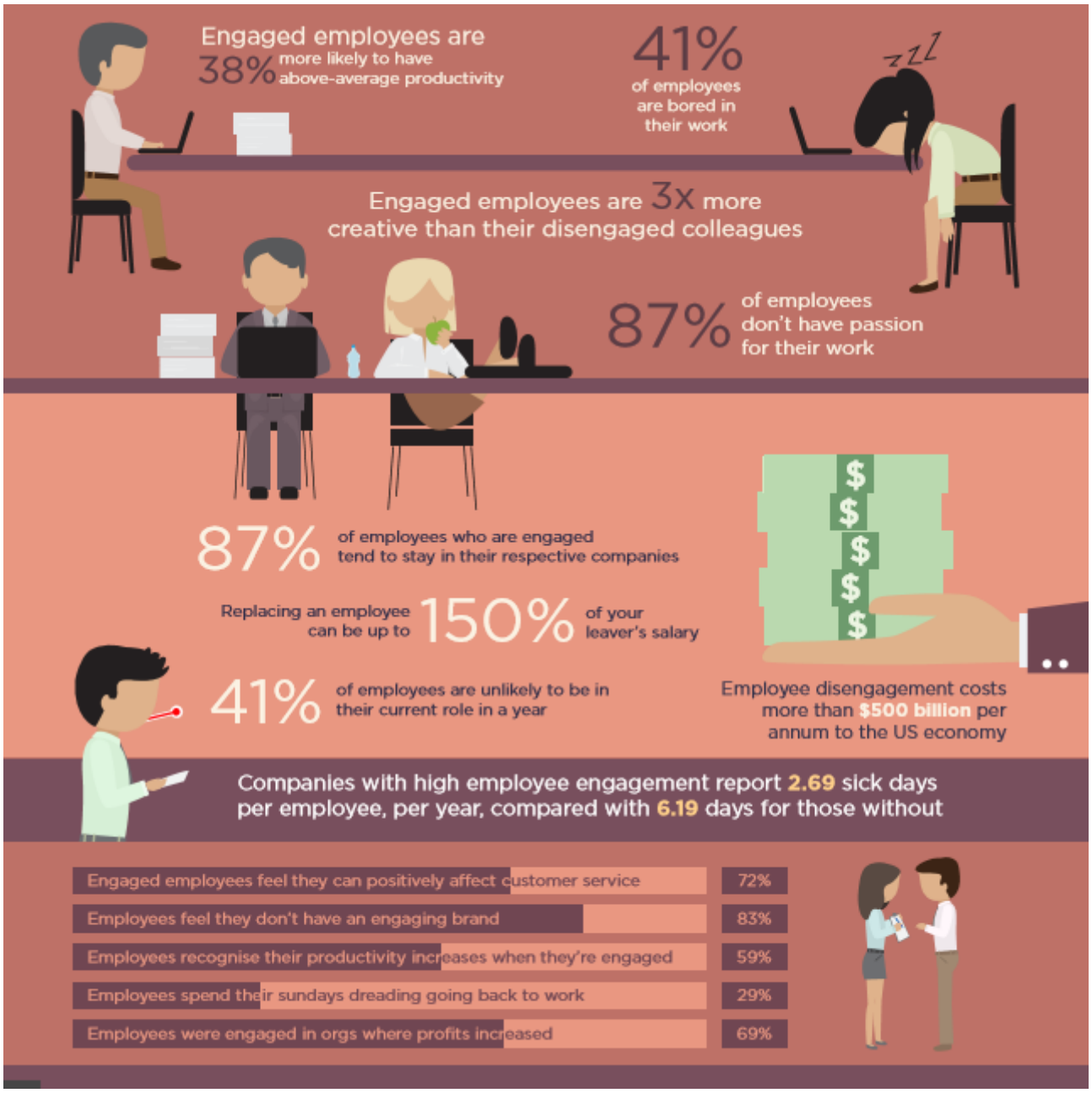
There however is a unique and evident difference between the way humans and machine work, which is the program running them!

A machine or a robot is programmed to complete a given task based on some predefined logic such as "**When X happens, do Y"** based on this logic, the machine would always do Y when X happens.

While that sounds quite simple, in case of humans, it's a slightly different and far more complicated. When X happens, a human might behave in one of the thousand different ways depending on a variety of factors. A human might do Y on one day but on another day, he might do B and yet another day might just do nothing!

This brings an important point – **Engagement** and **Motivation** which is the major difference between human and machine. Humans need motivation to be engaged while that does not apply to a machine.

Here are some stats on employee engagement from "One Night Stand" an eBook by Interact, UK which makes it evident that engagement is big issue.



If our workplace took a purely function focussed approach, we would simply be paid a salary to do the assigned tasks with best of our capabilities, but then we all know that salary alone is not enough or is not the only factor. There are several research papers highlighting the fact that salary has very little to do with human motivation.

When and what we want to do or not do depends on lot of things like our mood, feelings, insecurities, ambiance etc.

Another important thing to notice is that while engagement in case of work needs to be driven, in case of games it does not because it is inherently built in the game.

Engagement is also a prime factor that differentiates work and game. The only purpose of a game is to entertain the player and keep him motivated and happy. At some point in our lives, we all have skipped meals, stayed awake late night, missed classes in school to play a game. That is the power of a game.

	Work	Game
Tasks	repetitive, dull	repetitive, fun
Feedback	Once a year	Constantly
Goals	Contradictory, Vague	Clear
Path to mastery	Unclear	Clear
Rules	Unclear, not transparent	Clear, Transparent
Information	Too much and not enough.	Right amount at right time.
Failure	Forbidden, punished	expected, encouraged
Promotion	Not transparent	On merit
Speed/Risk	Low	High
Autonomy	Mid to low	High
Narrative	Mostly missing and vague.	Yes
Obstacles	Accidental	On purpose

Games in general are fun and addictive and if we can put these “fun” and “addictive” components to real-world activities, we can make them engaging and fun. That precisely is what Gamification does.

Imagine if our routine work could engage us like a game, we would enjoy every moment of it and be far more productive. Having said that it is important to note that Gamification is NOT a game. The key difference is that games are designed only to keep you entertained but are not productive, the primary aim of Gamification on the other hand is to add some elements of game in non-gaming context and help people complete routine or challenging tasks more efficiently, so while Gamification does have the “fun” component, the primary aim of a Gamification program is “being productive” and not just “having fun”.

What is Gamification

Gamification can be defined as

- The Process of using game concepts and mechanics to engage users, change behavior or develop new skills.
- It provides people with the stimulus to do a desired action and the feedback on how they performed that action.

Gamification changes human behaviour by making activities more enjoyable and make them more game-like by using some elements of game like Challenges, Competition, Recognition and Rewards. These game mechanics can be applied to change people behaviour and can turn routine tasks into an engaging experience. For example, most people are inspired by a challenge and a reward, and they feel happy when they complete a challenge and win something.

It has taken decades for game makers to learn to master motivation and engagement and the same concepts are now being applied to Gamification.

Gamification is relatively a new concept and the word itself still doesn't appear in many dictionaries. The term 'gamification' was coined in 2002 and first gained Popularity around 2010.

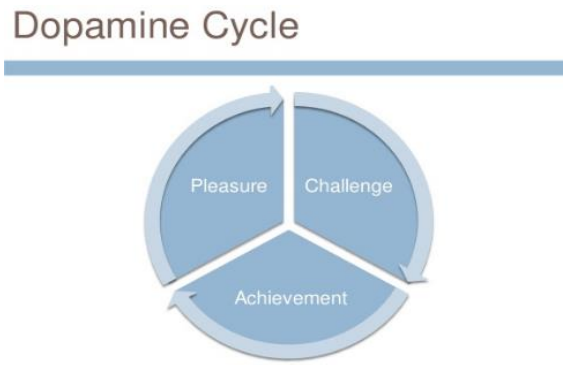
How does it work

Gamification motivates people to perform at their highest levels.

- People are motivated by a challenge or the promise of a reward
- People feel gratified when they win something. It gives them a sense of achievement and happiness.
- Gamification reinforces or corrects behaviors through instant feedback.
- Habits are formed with what is called the Stimulus – Action – Feedback loop. The more times we do these loops, the more the action becomes a habit.
- Gamification is a great way to provide people with the stimulus to do a desired action and the feedback on how they performed that action.

Our brain releases a "pleasure drug" called dopamine when our body experiences "pleasure", with each cycle of a challenge, achievement and reward, our body gets pinch of dopamine and helps us keep playing.

Gamification incorporates behavior change principles of Desire - Incentive - Challenge - achievement - Feedback – Mastery



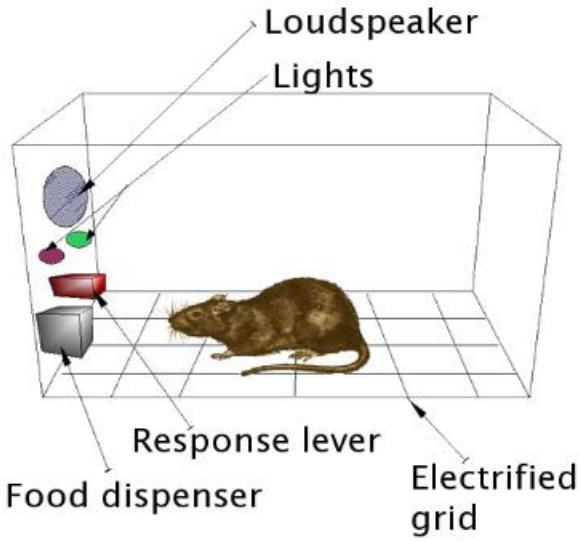
- Getting from Desire to Mastery requires the four steps in between and going over them repeatedly.
- Challenge and Achievement presented in a loop causes our brain to release dopamine which plays a major role in reward-motivated behavior.
- Main effect of Dopamine is to provide positive reinforcement.
- Humans are wired to desire and love the behavior loop so we can use games to create behavior change.

Gamification can be used to change behaviours through positive (increase behaviour) or negative reinforcement (decrease behaviour). Rewards are usually related to positive reinforcement and punishment is related to negative reinforcement.

Skinner Experiment

Skinner an American psychologist made a series of experiments to learn behaviour. He placed a rat in a box and added positive reinforcement (reward) such as food, water etc. Each time the rat pressed the lever, it got a reward. This made the rat learn and enforce a behaviour about the lever that pressing the lever gives food.

Many variations of this experiment were done with positive (food, water) and negative reinforcements (electric current, shower) to study behaviour conditioning/training.



Motivation Factors

Different users have different motivation factors some of which can be salary, money, promotion, power, social recognition, feeling of helping and contributing to the society etc. for example, an individual may be motivated by a badge he\she can show to others and flaunt, other may be motivated by a "coffee with the CEO" invite.

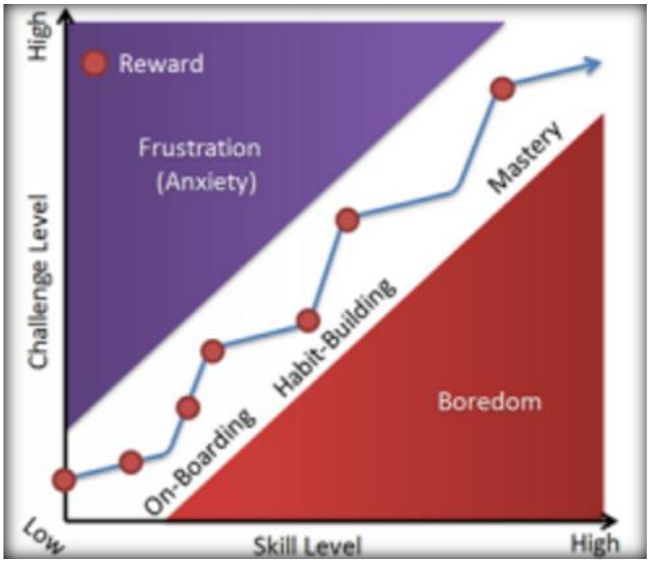
Motivation factors can be broadly classified into two types

- **Extrinsic motivation**
  Behaviour in this case is motivated by an external factor that pushes you to do something in hope of earning a reward. It makes you engaged primarily because of a goal or reward,
- **Intrinsic motivation**
  In this case the behaviour is motivated by your internal desire to do something for its own sake. It makes the activity itself fun and exciting, with or without a reward.

  While extrinsic rewards are effective in attracting users, it is the intrinsic rewards that are effective in retaining them for a longer period. Extrinsic rewards only motivate people for a limited period after which the user loses interest. For example, while a free coffee might be good for attracting users to participate in a program, it might lose its charm and attraction maybe after 2 months when a person has already won 10-15 free coffees. Intrinsic motivation e.g. social status, autonomy, role elevation etc. on the other hand continues attracting and motivating people for a longer period of time.

Game Flow

One of the important aspect of any game is the flow of the game. The game should neither be too easy nor too difficult. People will get bored if it is too easy to play and will get frustrated if it is too difficult to play, in either case they lose interest. The flow should be designed in a manner that it is easy when the game starts and as the player gets the hang of the game mechanics, the challenge increases. As a rule, the game should be easy to play but difficult to win. A good indicator of the flow is that the player gets totally immersed and addicted to the game.



Following are some key factors of the game flow.

- Clear goals
- Direct and immediate feedback
- Balance between ability level and challenge
- A sense of personal control over the situation or activity.
- The activity is intrinsically rewarding
- A lack of awareness of bodily needs
- Absorption into the activity

Why Gamification Programs Fail?

Gartner says that 80 Percent of the Current Gamified Applications Will Fail to Meet Business Objectives Primarily Due to Poor Design.

Following are some reasons for the Gamification programs to fail.

- **Wrong motivators** - Each user has different motivating factors and these should be chosen carefully. While extrinsic motivators make a user engaged because of a reward, intrinsic motivators ensure that the activity itself is fun and exciting with or without a reward.
- **Compulsory participation** - When we force people to participate, it no longer becomes a game, instead becomes a hurdle. Voluntary participation is the essence of a game and people would lose interest if a game made compulsory.
- **Relying on extrinsic motivators** - Simply adding Points, Badges and Leaderboards to something boring will not make it exciting and attract people. Many gamification programs would simply take some boring task, put the points, add badges, leader board etc. and hope that boring task\product will automatically become exciting. Such a program is most likely fail.
- **Focus on Graphics -** That key here is engaging the users. Its more than the look and feel. While a good UI and design is important, it is not the only factor. Games like Mario, Bricks game are good examples.
- **Bad game flow** – People would lose interest in a game that is too difficult or too easy.
- **Unclear Rules** - When the players can't figure out what they are supposed to do or how to play the game, they get confused and frustrated and eventually leave the game. Rules that are clear and easy to understand are important for a Gamification program to succeed.
- **Lack of immediate feedback** - Immediate feedback is an important part of gamification and plays a key role in keeping users engaged. Instead of hearing, at the end of the week, that you didn't perform well, an immediate feedback on how you are doing helps keeping users engaged. Besides immediate reward keeps them motivated.

General Recommendations

Here are some recommendations for a successful game design.

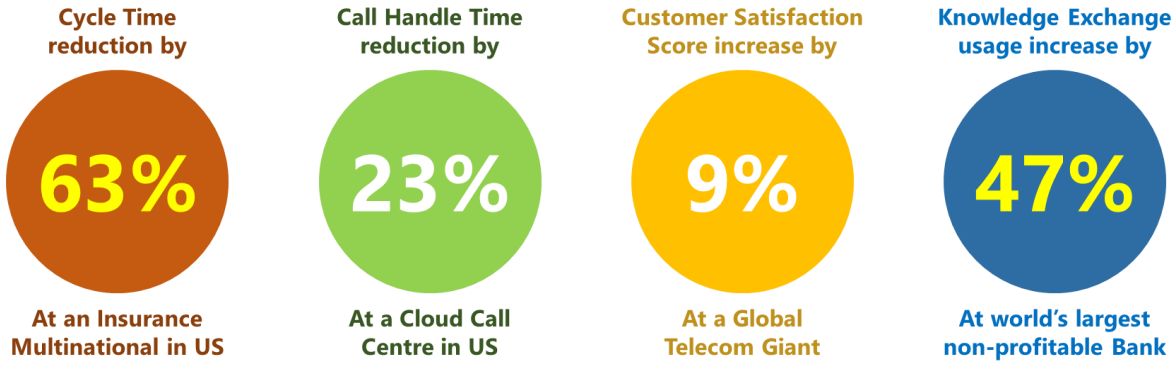
1. Consider the User types and plan motivators considering the user types in mind. As a general rule use extrinsic motivators to bring people to the game and Intrinsic motivators to keep them engaged.
2. Try to make it voluntary to maintain the essence of Gamification. Design it in such a way that people wants to play the game because it is fun and exciting and not because it is compulsory
3. Plan for cheaters to ensure that users can't bypass the challenge to get rewards, in which case they eventually lose interest and demotivate co-players.
4. Remember to include FUN part as that is the most important factor that will keep the users engaged in the game.
5. Focus more on the intrinsic rewards for longer engagement. Material reward draws in more attention and people. However, it is difficult to tell whether a person is participating for the fun or for the reward. The ideal and truly successful Gamification is one where people continues the encouraged behaviour for a long time.
6. A Gamification program should have a purpose to influence people, to behave in a certain way or to take a particular action.
7. Use low-fidelity graphics—focusing primarily on content and game mechanics. People should be attracted by the "fun" part of the game and not graphics.
8. The flow of the game should be optimally designed. Try to make it easy to play and difficult to win. Few people have fun playing a game that is too difficult or too easy and lacking challenge.
9. Don't make a game too complex for the users to understand.
10. Set rules and limits. Create a list of things to do (DO) and things to not do (Don't) that must abide by through the process. Share this with the users.
11. Setup mechanism to record user actions, experiences and reactions to get feedback.

Trends and Statistics

- Projected gamification growth is expected to reach $ 11.10 Billion by 2020.
- Gartner predicts that gamification, combined with other emerging trends and technologies, will have a significant impact on: Innovation, employee performance, education, customer engagement platforms, personal development.
- 80% of current Gamified applications will fail to meet business objectives primarily due to poor design (Gartner).
- 80% of 2000 global organizations will have gamified applications and /or processes (Mind Commerce).
- Vendors claim that gamification can lead to a 100% to 150% increase in engagement (M2 Research).
- 63% of American adults agree that making everyday activities more like a game would make them more fun and rewarding (JW Intelligence).
- Over 2/3rd of employers consider gamification an effective strategy for encouraging their employees to improve their health (Buck Consultants)
- A study showed that 61% of CEOs and CFOs take daily game breaks at work.

Successful Gamification Implementations

HCL's gamification experiences

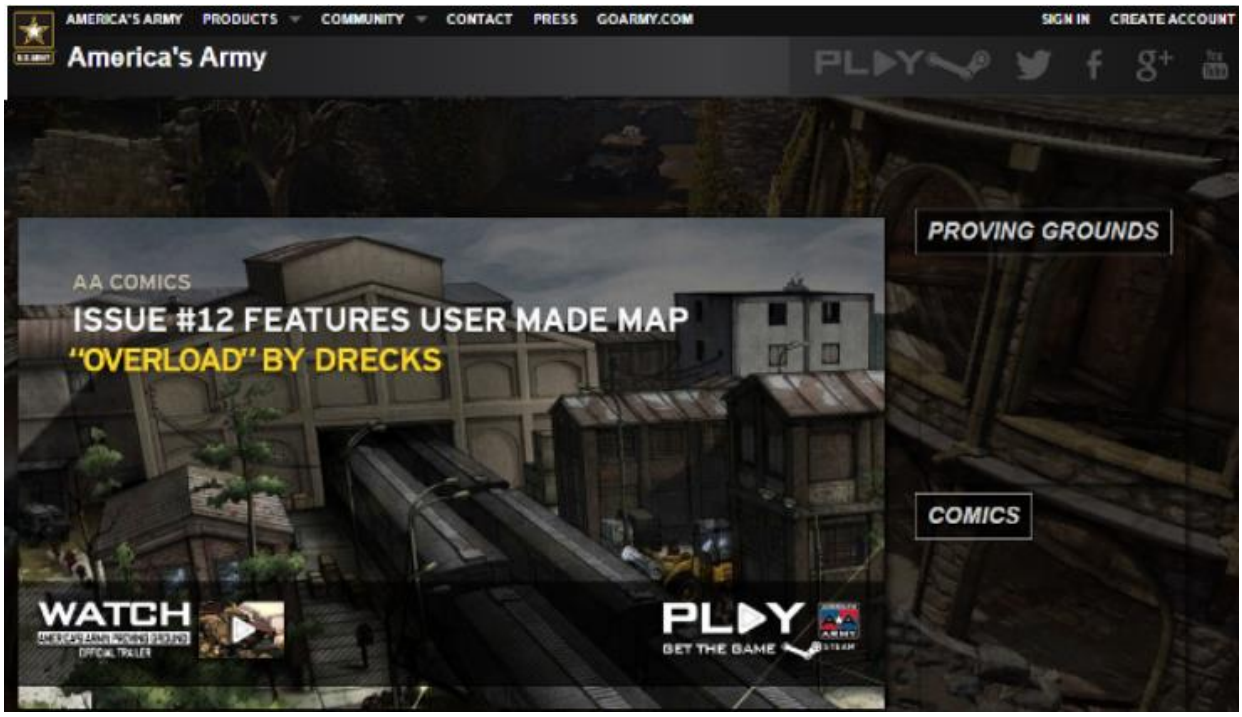


Some Interesting examples

Samsung Nation resulted in 500% increase in customer product reviews, and 66% increase in site's visits

Bottle Bank Arcade to recycle the bottle in a designated hole that is lit up by moving lights.

Piano Stairs resulted in 66% more people using the stairs as compared to escalators. Mats sensors and speakers were put across the stairs to play Piano notes when people walked up



America's Army recruited more people than all the other methods combined while costing a fraction of the marketing

Other Gamification Implementations

- **SAP**: The SAP Community Network regamified its already-mature reputation system, increasing usage by 400% and community feedback by 96%
- **CaLLogix:** reduces attrition by 50% and absenteeism by 80%. The company saves $380,000 per year
- **Spotify** and **Living Social**: replaced annual reviews with a mobile, gamified solution with over 90% of employees participating voluntarily
- **Objective Logistics**: the company motivates the employees through behavioural rewards and increases their profit margin by 40%
- **Google:** designed a **Travel Expense System** resulting in **close to 100% of employee compliance** for travel expenses
- **Deloitte:** training programs that are gamified took **50% less time to complete** and massively improved long-term engagement.
- **Idea Street**: the Department of work In UK used game mechanics to **get 120,000 people to contribute 4000 ideas**, with 63 of them implemented in the marketing department.