

## Game Mechanics in Gamification

### Description

This is a long post for me, so get a cup of tea now!

One of the main things that I have found whilst research and writing about Gamification, is that the terms and the language we use don't always seem to fit what were actually doing. As gamification matures, so should the language that we use to discuss it. One term that seems to get particularly abused, which we have borrowed from game design, is Game Mechanics. This all came from various discussions I had been having with people in the games industry. All of them told me that they felt that most people in gamification are getting this (and more) wrong.

### What are Game Mechanics?

To understand why this might be let's first take a look at what game mechanics are. The following are quotes taken from various well known game design books and papers.

*“Core Mechanics represent the essential moment-to-moment activity of players. During a game, core mechanics create patterns of repeated behaviour, the experiential building blocks of play.”*

**Katie Salen and Eric Zimmerman: Rules of Play**

*“Mechanics are the various actions, behaviors and control mechanisms afforded to the player within a game context. the mechanics support overall gameplay dynamics”*

**Robin Hunicke, Marc LeBlanc and Robert Zubek: [MDA Frame Work](#)**

*“These are the procedures and rules of your game. Mechanics describe the goal of your game, how players can and cannot try to achieve it, and what happens when they try.”*

**Jesse Schell: The Art of Game Design, A Book of Lenses**

For example, consider Space Invaders. When you shoot at an alien, it is the sets of game mechanics that define how the bullet will travel, it's speed and trajectory, what happens when it hits the enemy and

so on. The inclusion of a shield is also a game mechanic, How you decide to interact with the shield (hide behind it or shoot it) is a game dynamic. Changing these core mechanics will often change how the game plays. So if you change the speed of the bullet fired by your ship, the difficulty changes.

In gamification, we don't tend to need to talk about this depth of inner workings in a system. However, that doesn't mean there are no mechanics in place.

For our purposes, I think that we can distil the definition of a game mechanics or more appropriately core mechanics down to

*“A distinct set of rules that dictate the outcome of interactions within the system. They have an input, a process and an output. “*

Further to this we can also state that dynamics are

*“The user's response to collections of these mechanics”*

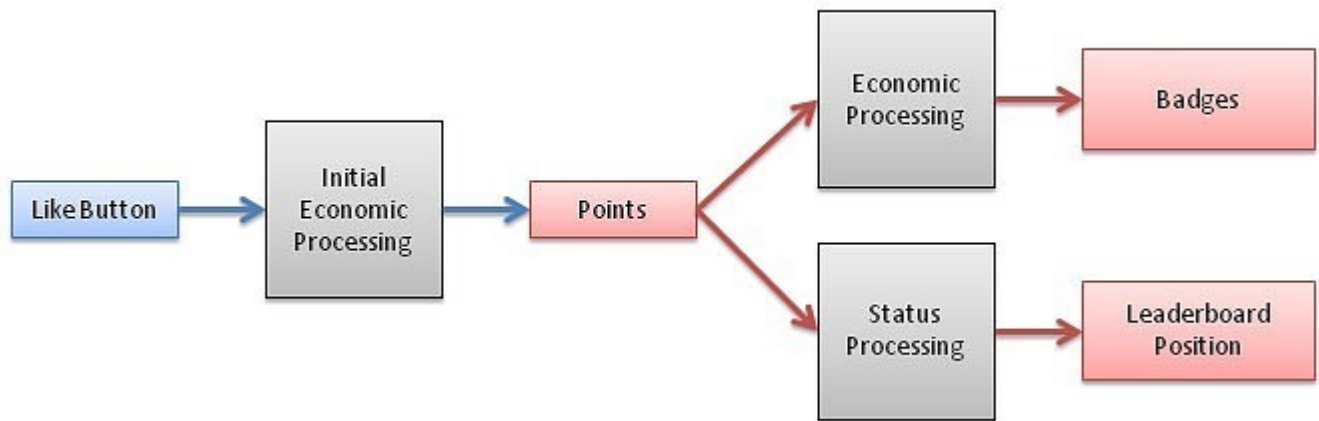
## **A lot of people in gamification are getting this wrong**

I recently asked on Quora what “game mechanics” from the [SCVNGR list of 47](#) were in fact game mechanics. For those that don't know this list lives as a deck of cards that can be mixed and matched to create new game ideas. Some of the items on this list such as Epic Meaning, Blissful Productivity and Behavioral Momentum are spoken about a great deal in the same breath as game mechanics when you hear people discussing gamification. In general, of the 47 mechanics listed only a small handful were considered actual game mechanics. Raph Koster, author of “A Theory Of Fun for Game Design”, went so far as to explain what each of the 47 was. The majority were really feedback and desirable outcomes of a well balanced system. His response [is worth a read actually](#). That does not mean they are of no value, far from it. Some of the ideas described are great food for thought when you consider gamified systems and it is well worth looking over. Also, this is not the only list out there that talks about similar concepts in the same breath as game mechanics – it is just well known!

## **An Example of Core Mechanics in Gamification**

As I say, gamification does have game like core mechanics, as a quick example let's look at a very basic example. We want to increase the number of Likes content on a brands Facebook page gets. We will use the old classic; points, badges and ladders.

Clicking the Like button gives you points. Points are used as the basis for getting badges and also position within a Leaderboard.



There are several mechanics involved here.

Clicking the button to receive a reward is a mechanic. Changing the balance of the mechanic would then change how many points are given to the user for a click.

These points then get processed through two secondary mechanics. The first awards badges / trophies based on how many points the user now has. The second takes the points and works out where the user now sits on a leaderboard, giving them some level of status.

Things like progress bars, images of badges and leaderboards are just visual aids to monitor feedback. The thing is, when we talk about gamification we never really need to get into this kind of depth. This is where developers and also game designers reside in the process. These are the people who can balance the core mechanics of the gamified system to give the best end user experience. They are the ones who need to worry about the maths and the logic functions.

## What should we be talking about?

Personally, I feel we should be talking about game like ideas, desired behaviours, motivators and supporters.

Start by looking at what the desired behaviour is. In our Like button example, we want people to click the Like button, pretty simple.

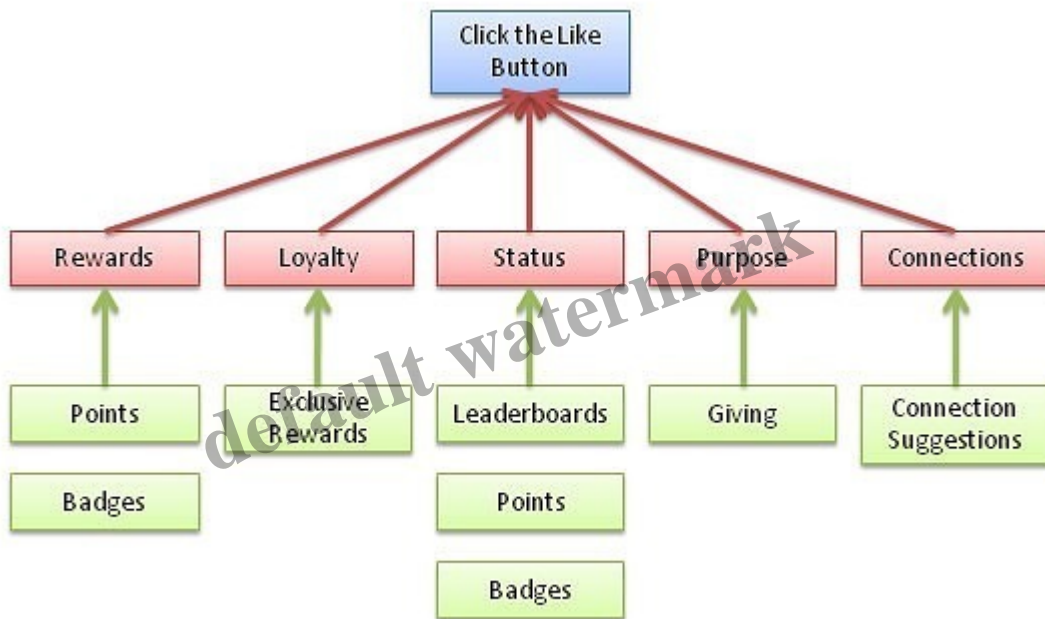
Next we should consider what may motivate the user to click the button, an activity that has little or no intrinsic value to the user. I have spoken about motivation numerous times, so will not bore you now with the benefits of [extrinsic vs intrinsic motivation](#). For our purposes, we can consider autonomy, mastery, purpose and relatedness (broken down into social status and social connections) as our basic intrinsic motivators and rewards, peer pressure and avoidance (the desire not to be punished) as examples of extrinsic motivators. We should also consider certain emotions, in particular here, loyalty.

Next to look what may support these motivators. With rewards, you're looking at basic points, badges and achievements in some form of economy. With status you can look at leaderboards and also to certain extent badges and achievements to show off status. The table below shows more examples of

motivators that may be used and what could be used to encourage and support them.

Desired Behaviour	Motivation	Supporters
Click Facebook Like	Rewards	Points, Badges
	Loyalty	Custom / Unique Rewards
	Status	Leaderboards, Points, Badges
	Purpose	Giving. Donations to charity every N likes
	Social Connections	Suggest similar users

This is a very simple example, but goes to illustrate a working method of talking about how we can gamify experiences. Represented in pictures you could use the following.



Notice the arrows are heading towards the desired behaviour; they metaphorically supporting the behaviour.

It is very important to consider some of the potential undesirable behaviours as well though (dynamics if you will). People abusing the like button to gain status, that sort of thing.

## Does it matter?

In the grand scheme of things, probably not. However, As I said at the start, as gamification matures so should the language used to describe it. It is fine to steal ideas and phrases for other disciplines, but as we abuse them they begin to lose their meaning. Game mechanics are my major example of this, but I am sure you can think of other things we are talking about that may have somewhat changed meaning over time.

## Some Thanks

I would like to thank a few people who have been really generous with their time and their knowledge. As I am not a game designer and in some ways to prove my point here, I had to do an awful lot of research to ensure I knew what I was talking about with game mechanics. Even now I am not totally sure I have got my Facebook like mechanics analogy totally right!

So thanks to

- Tony Ventrice, Game Designer at [Badgeville](#).
- Raph Koster, Game Designer and author of [A Theory of Fun for Game Design](#).
- Eric Zimmerman, Game Designer and author of [Rules of Play](#).

Special thanks go to the following who have been incredibly patient with me over the last few weeks!

- [Richard Bartle](#), Game designer, Creator of MMORPG games as we know them.
- [Ian Bogost](#), Game Designer, author and all round disliker of the current state of gamification.

Some practical bits for you to use now ?

## WORKSHEET

Desired Behaviour	Motivation	Supporter

## EXAMPLES OF MOTIVATORS AND SUPPORTERS (BY NO MEANS COMPLETE!)

Motivators	Possible Supporters
Autonomy	Customisation Choice Freedom
Mastery	Levels Challenges
Purpose	Giving / Altruism Narrative Greater Meaning
Status	Leaderboards Achievements
Social Connections	Suggest similar users Cooperative "play"

Rewards	Points Badges Achievements
Peer Pressure	Peer review / feedback / grading systems Boasting / Bragging system Competitive “play”
Avoidance	Lose Points Lose Status Game Over
Scarcity	Exclusive / Unique Rewards Reward Schedules
Fun!	Real Games Quiz's Competitions

### Category

1. Gamification

### Tags

1. autonomy
2. engagement
3. framework
4. game mechanics
5. Gamification
6. motivation
7. reward schedule
8. reward scheduling
9. rewards

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