

CS449/649: Human-Computer Interaction

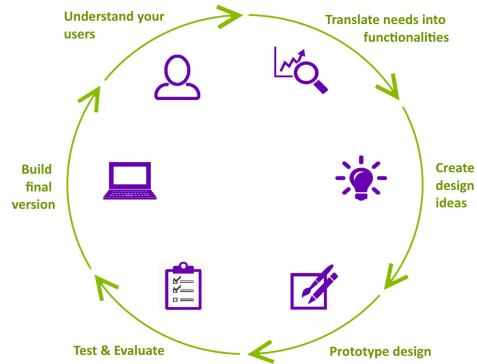
Spring 2017

Lecture XX

Anastasia Kuzminykh

User Centered Design Process

May 1 - June 14



History of user centered design in HCI
June 19, June 21



Academic HCI
June 26, June 28



Special topics in HCI
July 5, July 10



Course Review
July 12, July 17



Presentation 2
July 19



Last class
July 24

[Special topics]



Accessibility in HCI



Gamification



Gamification

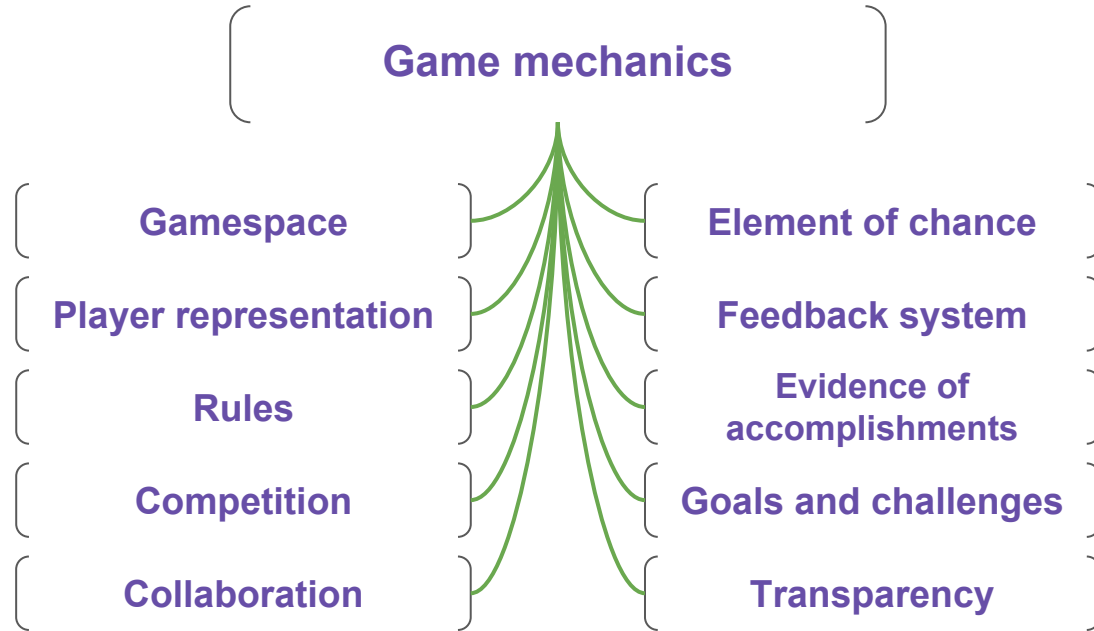
Gamification - the use of game mechanics and game dynamics in a non-game context

Term coined by Nick Pelling in 2002.
Gained popularity around 2010

Used in design to increase motivation and engagement

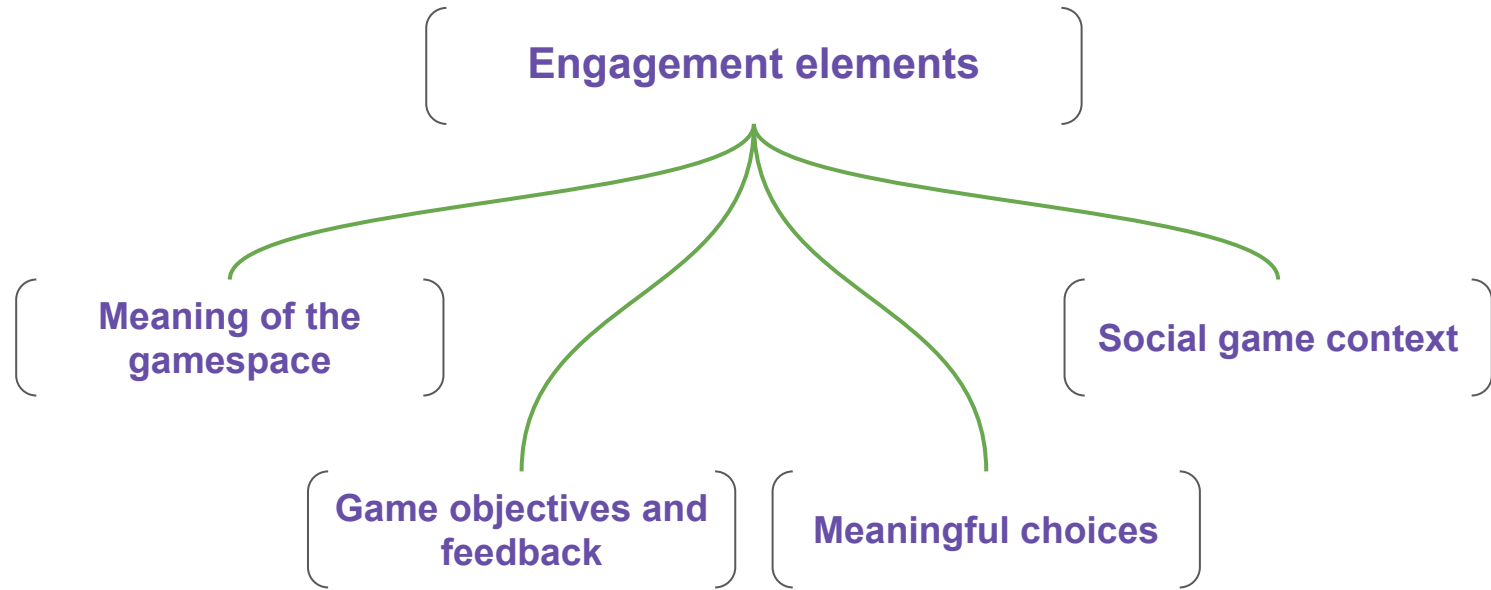


Gamification





Gamification





Gamification

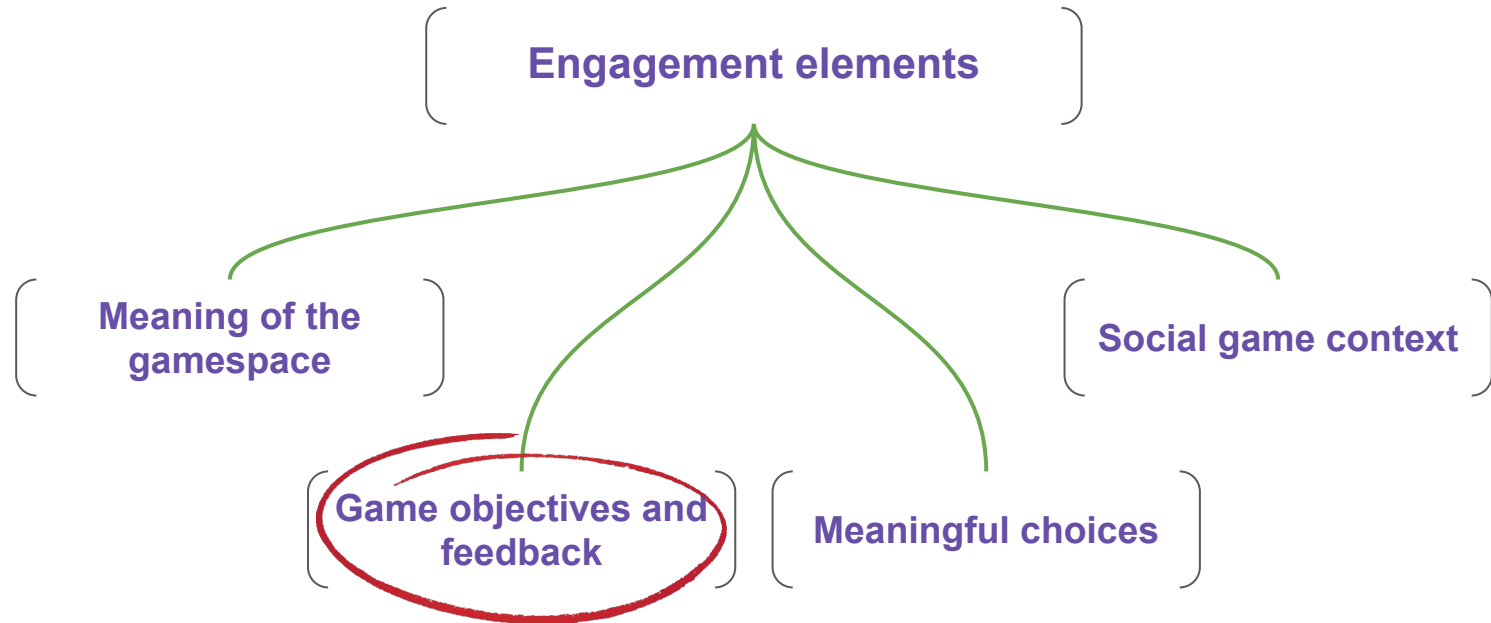
Meaning of the
gamespace

Game of
fe

- Often achieved by **storytelling practices**
- Should be heavily supported by **visual elements**
- Gamified goals should connect to **personal goals**
- Connecting to a **meaningful community of interest** is helpful
- Building upon **social meaning within the created story and outside of it**



Gamification



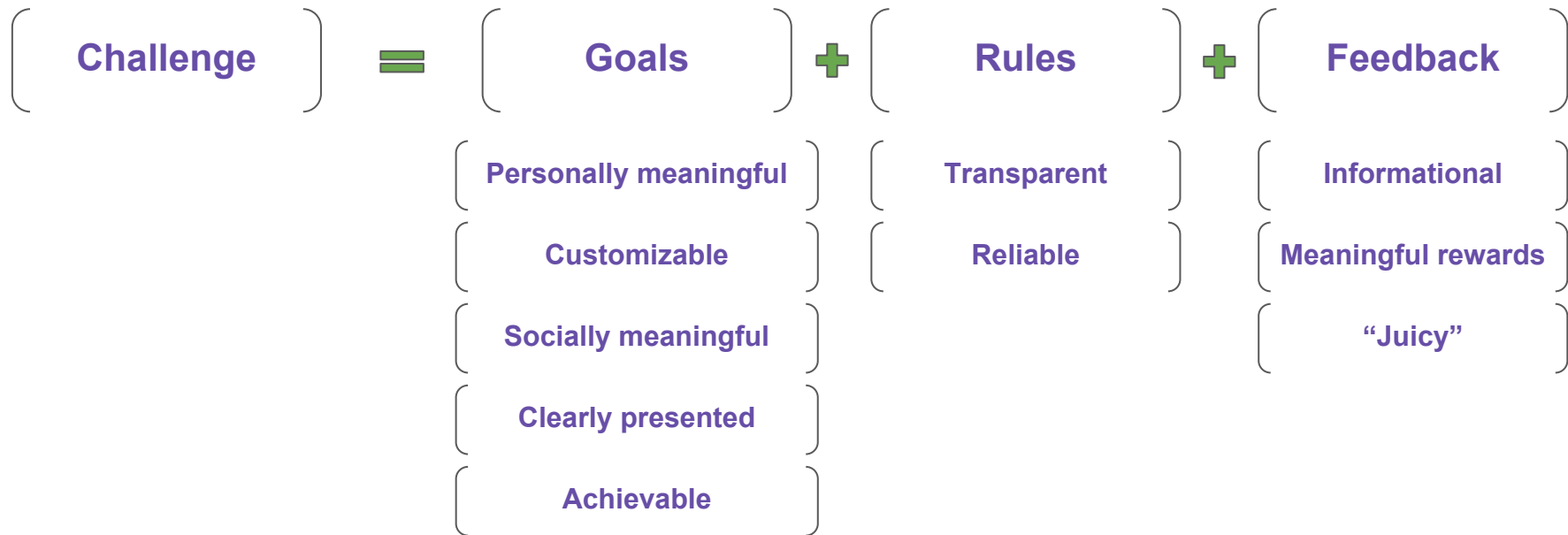


Gamification

$$\left[\text{Challenge} \right] = \left[\text{Goals} \right] + \left[\text{Rules} \right] + \left[\text{Feedback} \right]$$



Gamification





Gamification

- Interesting and meaningful challenges
- Clear goals, organized by increasing difficulty
- Match the edge of user abilities
- Make rewards meaningful internally and externally
- Feedback should be informational
- Feedback is more effective when hitting emotional level

Game context

Game objectives and
feedback

Meaningful choices



Gamification

- Support voluntarism and autonomy
- Make choices feel meaningful and impactful
- Support multiple ways of problem solving
- Lead users in the right direction but don't force them

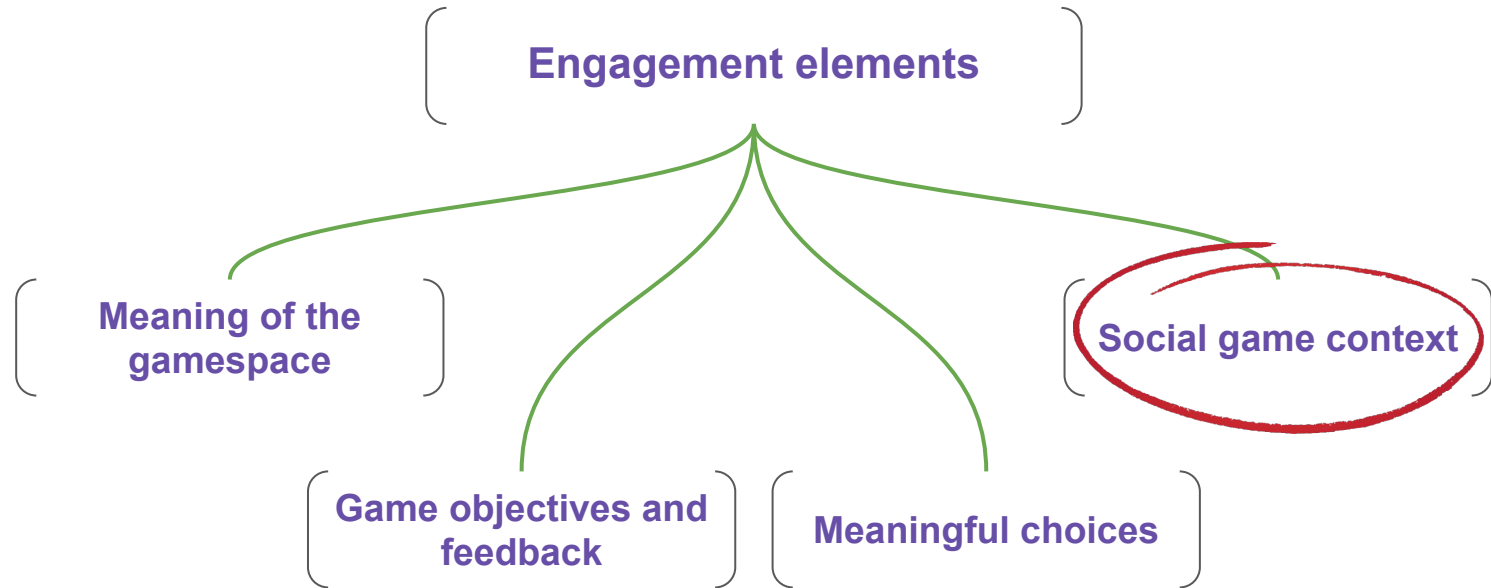
Meaning of the
gamespace

Game objectives and
feedback

Meaningful choices



Gamification





Gamification



<https://thepsychologist.bps.org.uk/volume-27/edition-11/necessarily-collectivistic>

**The Robbers Cave Experiment by
Muzafer Sherif**

Realistic conflict theory - situation
when two or more groups that are
seeking the same limited resources
leads to conflicts, negative stereotypes
and discrimination between groups.

In-group–out-group bias - pattern of
favoring members of one's in-group
over out-group members



Gamification

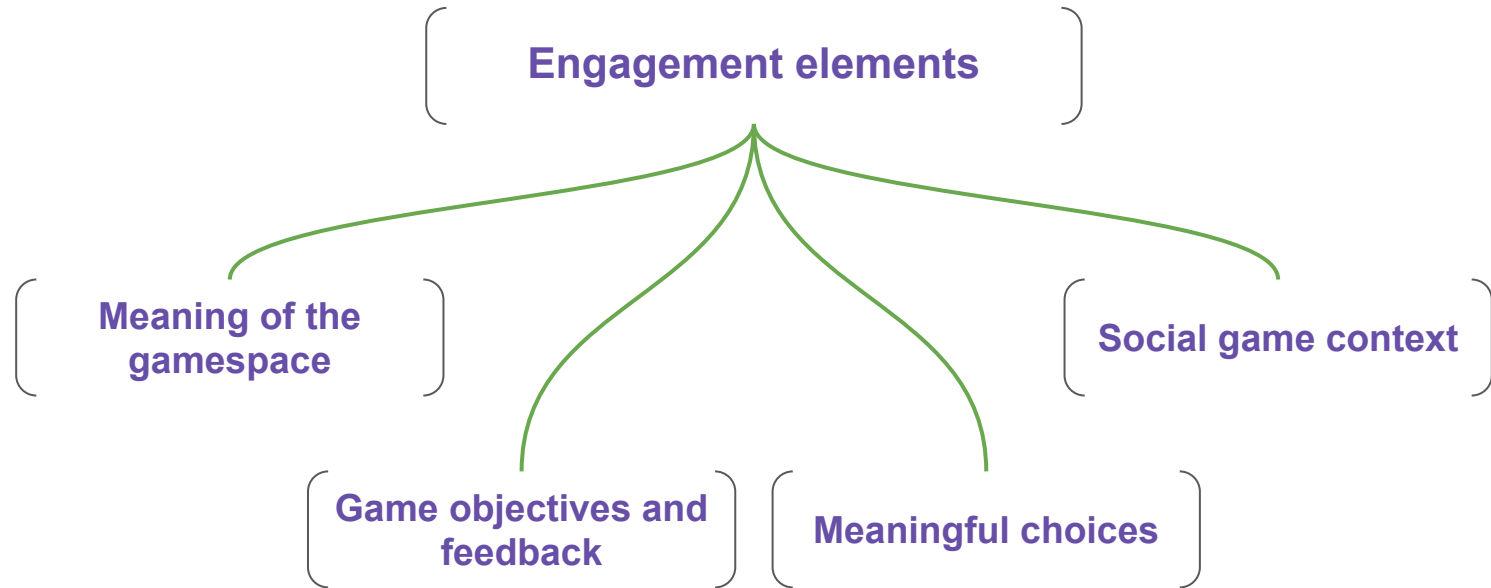
- Connect to meaningful communities
- Allow users to group and regroup
- Support community internal activities
- Support setting shared goals
- Support status and reputation representations
- Support players representation customization

Social game context

choices

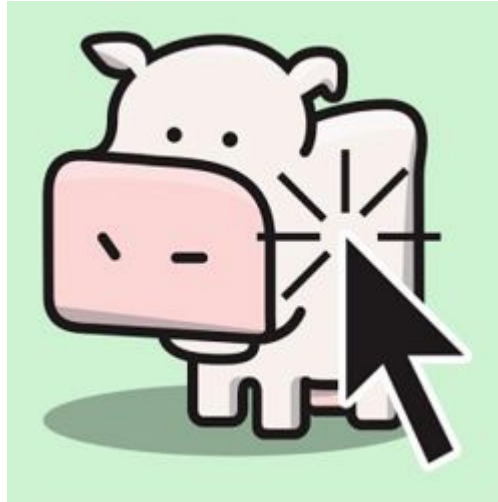


Gamification





Gamification



Cow Clicker by [Ian Bogost](#)



Gamification

Self-determination
theory

Intrinsic motivation

Feeling capable of doing something

Feeling free to choose how to do something

Feeling connected to other people

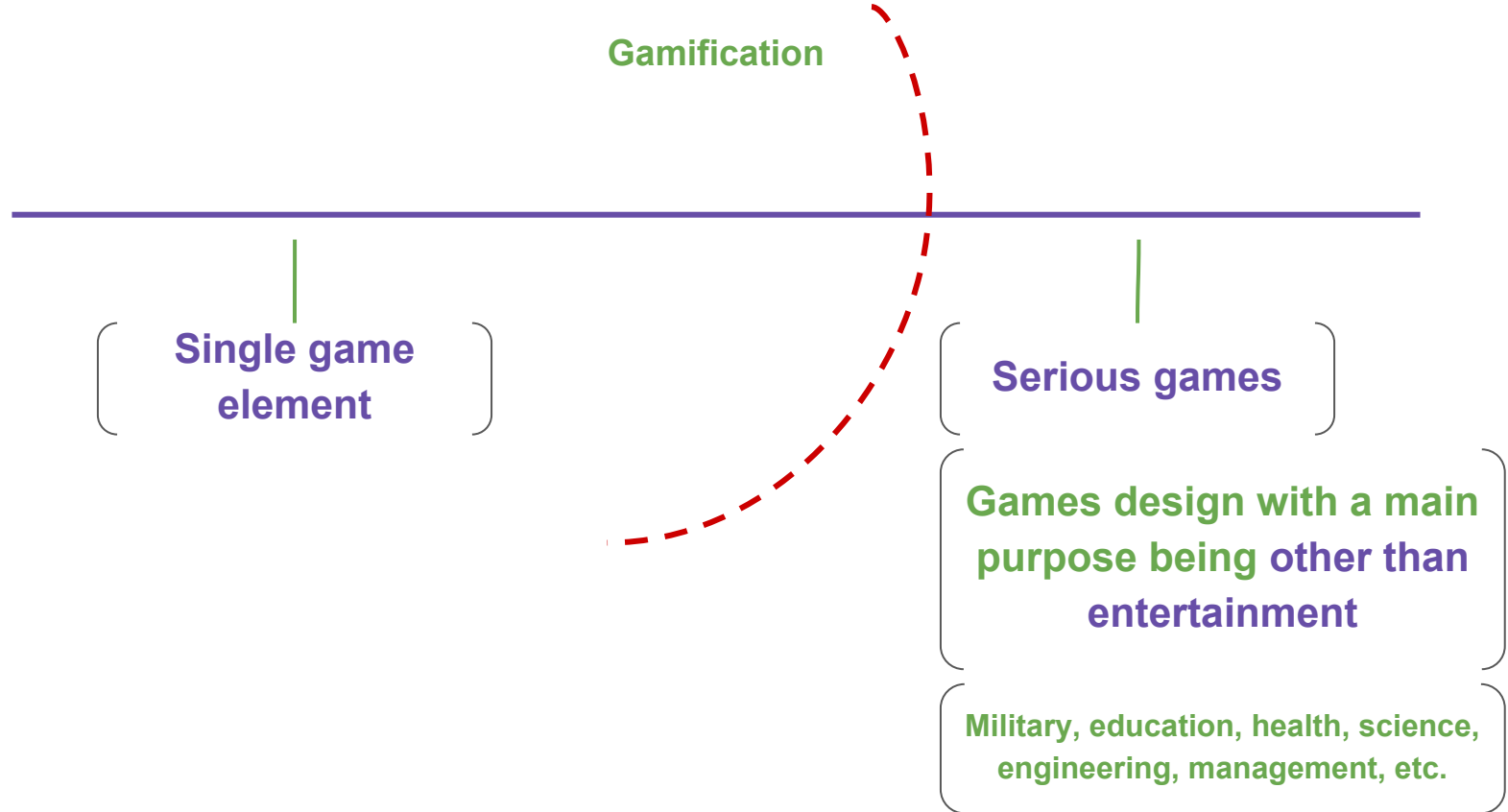
Extrinsic motivation

Possibility of achievement

Fulfilling an obligation



Gamification





Gaming can make a better world | Jane McGonigal