Motivational, ethical and gamification issues in crowdsourcing

Enet-collect

University of Leiden, Netherlands
24-25 October 2018

Liam Murray & Marta Giralt
ML & AL
University of Limerick, Éire.

Outline of the Presentation

- Definitions
- Key questions. E.g. how much gamification?
- Motivation and Self-Determination Theory
- Presenting the GaMDef framework
- A wee bit of Flow Theory
- Gamification issues & Ethical concerns
- Gamify everything? A modest proposal
- Gumption traps with Zen quality

Definitions

- At its most basic: gaming is a "willing acceptance of a challenge"
- Gamification has been defined as the use of game design elements in non-game contexts, and has proven to be highly effective in motivating behavioural change. It does not necessarily mean making everything into a game.
- Aye, there's the rub
- By interpreting game elements as "motivational affordances" (Zhang, 2008; Jung, Schneider & Valacich, 2010; Deterding, 2011), and formalising the relationship between these identified elements and motivational affordances, it is our conviction that gamification can be effectively used to improve software systems across many different application domains.
- However, a caveat, Iacovides et al, (2013) increasingly, games are being incorporated into online citizen science (CS) projects as a way of crowdsourcing data; yet the influence of gamification on volunteer motivations and engagement in CS projects is still unknown.
- Found that game elements are not necessary for attracting new volunteers to a project; however they may help to sustain engagement over time, by allowing volunteers to participate in a range of **social interactions** and through enabling **meaningful recognition of achievements**.

Key question: how much gamification?

-Our research shows **direct relationship** between **game elements** and **motivation.**

-Previously developed framework linked the most commonly-present **game elements** with the c**omponents of a psychological motivational model** known as the **Self-Determination Theory.**

    AIM: inform system designers who would like to **leverage gamification of the game elements** they would need to employ as **motivational affordances**.

-Brief comparisons of game elements and a recently established framework, known as **GaMDef** - "**Gamification–Motivation Design Framework**" (Exton & Murray, 2018).

- Show the various i**nterrelationships** that exist in **game elements** and those which carry most relevance to our **Working Group 3** area.

Motivation and Self-Determination Theory

-There are "over twenty internationally recognized theories of motivation" (Dörnyei, 2001, p.12), but it is way beyond our scope to cover them all.

-Instead we concentrate on SDT, a theory proposed by Ryan and Deci (2000)
SDT suggests that **Competence** (mastery e.g. boss fights), **Autonomy** (choice e.g. DLC) and **Relatedness** (social connection e.g. *WoW* or *Fortnite*) are the constructs that drive motivation.

SDT extends: *Constructivism,* (individual constructing their own meaning), and individual being afforded the chance to experience Autonomy.

: Vygotsky's *Cognitive Development Theory* (capacity to heighten one's conceptual abilities is reflected in the fulfilment of a feeling of Competence).

: *Constructionism* (learners constructing their own mental models through the concept of Competence), where those mental models allow for a feeling of mastery, and through the concept of Autonomy, and being heavily involved in one's own learning.

Game element				Alternative names across articles
Achievements				
Avatars				
Badges				
Gifting				
Leaderboards				
Points				
Levels				
Quests				
Teams				

Achievements: In-game content that is earned by player behavior, e.g. Content …

Avatars: Visual representation of a player in a game, personalized with chosen Elements

Gifting: The practice of giving in-game Virtual goods to other players, as a reward or as part of a Team strategy

Leaderboards: All players' positions in a system, usually in relation to the number f Points they have been awarded

Points: Awarded for various deed… game

Levels: Levels express the number of Points a player has, and subsequent Levels become more difficult as a player pro…

Quests: Specific tasks which a… goals and can further a narrative threa… in a game

Teams: Groups of people who may or may not know each other outside the Game

6

Game element	Werbach & Hunter, 2012	Fitz-Walter, 2015	Seaborn & Fels, 2015	Alternative names across articles
Virtual goods	Virtual goods: In-game items which may			
Boss fights	Combat: Fights, battles, duels wit	Boss fights: Final challenges in order to Level up		
Combat				Challenges
Collections	Collections: Sets of in-game items that may or may not be useful within the game			Feedback/tangible rewards
Content-unlocking	Content-unlocking: Content withheld from players until a certain level of ability is Reached		graphs: Information data sets presented cific groups or Teams of people within a e.g. To spur one group on to compete t another	
Social graphs				rewards

games

7

The consolidated, evaluated GaMDeF (Gamification–Motivation Design Framework)

GAME ELEMENT	COMPETENCE	AUTONOMY	RELATEDNESS
Achievements			
Audio-effects			
Avatars			
Badges			
Boss-flights			
Collections			
Combat			
Content-unlocking			
Discussion forums			
Gifting			

The consolidated, evaluated GaMDeF (Gamification–Motivation Design Framework)

GAME ELEMENT	COMPETENCE	AUTONOMY	RELATEDNESS
Leaderboards			
Levels			
Points			
Quests			
Realistic graphics			
Social graphs			
Teams			
Virtual goods			
Downloadable Content (DLC)			
TOTALS	16/19 compete.	14/19 autono.	14/19 related.

Inter-relationships

- Flow Theory by **Mihály Csíkszentmihályi**
- too bored = too easy; too hard = too frustrating: Creative act of the artist; not necessarily learning; not originally games. Watching a video. Any immersive act.
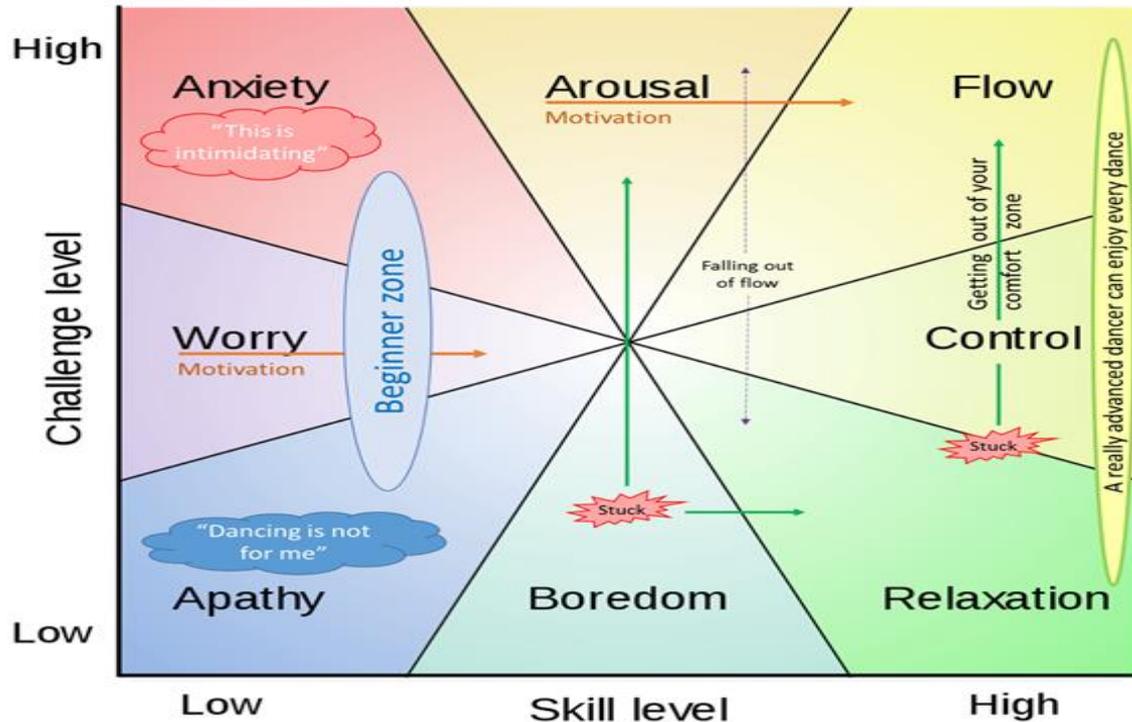
The Critics

However, gamification is not without its critics

Zichermann (2011) believes that he only needs to provide users with rewards and status, in order to encourage them to participate in a system.

This paring down of the powerfulness of games into nothing more than rewards aggravates critics such as Bogost (2011; 2014): "exploitionware" and worse.

Deterding sees Zichermann's approach as allowing customers to be "(fleeced) to the benefit of the company" (2011), rather than games that enhance a participant's life.

Deterding claims that Zichermann lauds those that "dupe customers", manipulating them to **undertake tasks they would not otherwise do**.

Motivation can be described as the sense of being "**moved to do something**" (Ryan & Deci, 2000), but is also about the "**choice**" of an action and the "**effort**" expended on it (Dörnyei, 2001).

Therein lies the rub between ethics, motivation and gamification.

GAMIFICATION ISSUES & ETHICAL CONCERNS

Changing behaviours; persuading somebody to engage.

Extrinsic motivation & Intrinsic motivation, and the question of how much extrinsic motivation?

Data collection from users generated. Users need to know. Language production is not as authentic

- Immersion and danger of NLP becoming NLP?
- Games can be inherently addictive for some people
- Reward or disruption?
- Gamify everything? Our proposal: first 3 minutes heavily gamified and after that light gamification
- Gumption traps from R.M. Pirsig's "Zen and the Art of Motorcycle Maintenance".
- One final question on the cultural content of games: every cultural artefact carries a resonance.
- Should games be bland, interesting or slightly controversial?
- Remember the PARSNIP model (no Politics, Alcohol, Religion, Sex, Narcotics, -isms or Pork)