

Developing Serious Game for Behaviour Change

(Work Package 2)

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Game for Attitude/Behaviour Change

- Video games is highly prevalent among young people
- Effects of video games (the polarised debate)
 - Violence, distruction, content & play time on player attitude/behaviour
 - intense acts of violence in action games and FPS may lead to aggressive behaviour in player's daily life & decrease empathy and prosocial behaviour
 - stereotypical narratives & content often promote and reinforce male dominance lessening players' empathy
 - Health promotion & community education, e.g. smoking cessation, obesity, active living, healthy eating
 - shift from treatment-and-prescription to prevention
 - Prosocial games



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Lemmings (1991)



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Prosocial games & game mechanics

- Positively affect player behaviour
 - more empathetic, helpful & sharing,
 - help children form positive relationships
 - team working
 - emotional intelligence

Gentile et al., (2014) revealed that change in video-game use from violent to prosocial significantly affected change in helping, and that this relationship was mediated by change in empathy.



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Agar.io



Prosocial game mechanics

- Not many prosocial games per se. Games with prosocial content are more common
- Prosocial elements promoting altruism & instigate prosocial actions
 - helping out or rescue characters
 - giving/sharing resources
 - team mode / cooperative gameplay
- Altruistic relationship emerge from game play, though it may arise from optimised *selfish* strategies

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Relevant games that we can learn from

- *Sweatshops* (2008) – child labour
- *Breakaway* (2011) - a Soccer game about gender violence
- *CAVA* project (2013) - dating violence in adolescents
- *Rosie* (Reeves et al. 2015) – child protection
- *Gone Home* (2013) teenager experiencing sexual awakening & feeling the need to run away
- *Cloud Chaser* (2015) addresses immigration



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Gone Home



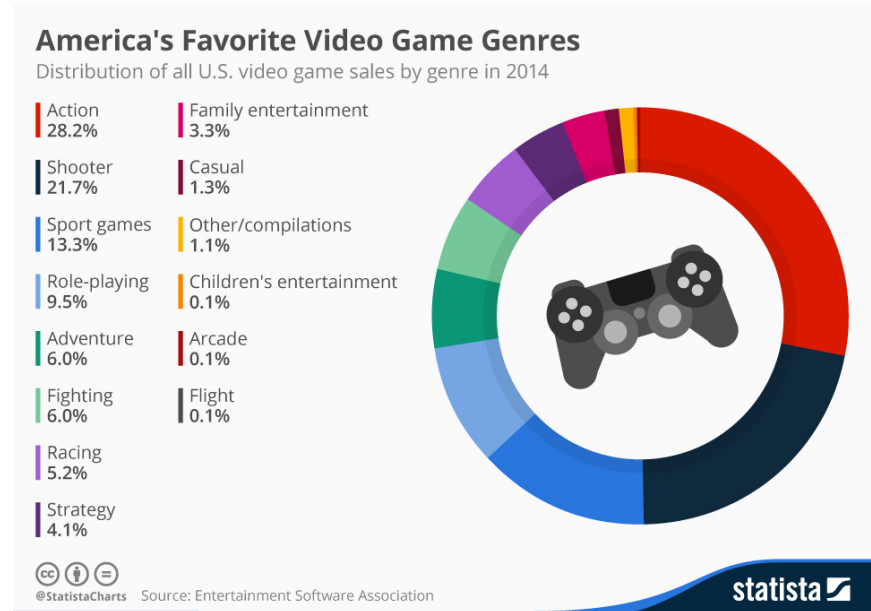
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Game Genres

- Adventure, exploration
- Action, FPS, fighting
- Art game
- Puzzle, platforming, boardgame
- MMO
- **RPG**
- Simulation, sports, racing, flighting
- Strategy
- Excergame, music game
- Casual / social
- Construction
- Survival / horror



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Target audience

- **Children & young person in primary, secondary, tertiary education**
 - Age (5-18)
- **Women in vulnerable circumstances**
 - living with HIV, disabled, sex workers, trafficked women
- Men and youth
- Young offenders, probation
- Professionals (police, magistracy, probation, health, education, social workers) as a tool in professional training
- Civil Society Organisations
- General public



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Storytelling



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- Treating a game as a narrative (or including narrative as part of a game) can help us make a more compelling game
- Questions to ask:
 1. Who is telling the story?
 2. What is the conflict?
 3. Who is the player meant to identify with?
 4. What do you want the player to feel?
- Usual devices: cut-scenes, branching dialog trees
- Goal: get the player to "suspend disbelief" and have a real emotional response to events that are fictitious

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Character Design

- Defining attributes & personality
 - Clothing, name, age, upbringing
 - Color palette reflects character's attitudes or emotional temperament
- Story-driven / art-driven
 - Story behind the character
 - Developing his/her traits & personality before considering appearance
 - Character growth
- Key cues to character's personality
 - Vocabulary – age, social class, education
 - Grammar & sentence construction – education & class
 - Accent – place of origin and social class
 - Delivery (speed & tone) – excitement, boredom, anxiety, suspicion, fear or other emotional state
 - Vocal quirks – distinguishing
 - Voice acting?

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Feedback & Rewards

- A player who has spent time and effort on completing a task, **expects to be rewarded**
- Likewise a player who has failed in an objective, **expects to be punished**
- If actions don't have consequences, then the game-play is meaningless

- Offer valuable rewards for valuable achievement
- 15 minute reward loop
- Create rewards for each experience you want to support
- Use collections of small rewards that lead to huge rewards
- Punishment for not playing, rewards for returning



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Game AI

- NPC intelligence

Acting as an opponent, an ally, or as a neutral entity

- Game mechanics
- Dialog management
- Emotion & behaviour modelling using FSM & fuzzy logic
- Trigger system
- Filtered randomness



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Thank you

References

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- Saleem, M., Anderson, C.A. and Gentile, D.A. (2012) Effects of Prosocial, Neutral, and Violent Video Games on Children's Helpful and Hurtful Behaviors. In *Aggressive Behavior* Vol 38, 281–287.
- <http://www.gamesforchange.org/>

Questions?

Contact

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Brainstorming of game ideas

Every great game started out as someone's great idea

- Story & characters
- Goals and gameplay
- Quests
- Roles that can be played by the player
 - Victim
 - Rescuer: guardian angel of the victim
- Player perspective
 - First-person
 - Third-person
- What info needs to be embedded in the play?

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None in Three game spec (to be discussed)

- Genre
- Graphics (cartoonish/realistic, 2D/3D/isometric, 2D with 3D renders)
- Number of player(s) (solo, 2-player, multiplayer)
- PvE / PvP
- Platforms (PC/Mac standalone, web-based, Android/IOS)
- Interaction (keyboard & mouse, touch screen, voice etc.)
- In-game stats



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