

A Scaffolded Social Learning opportunity might use several of these aesthetic goals, for example working with others to complete tasks in Fellowship, making choices and finding new things in Discovery, overcoming obstacles in Challenge and being unique, telling about yourself in Expression. What Aesthetic goals would you include in your learning opportunity?

Hunicke, R., LeBlanc, M. and Zubek, R. (n.d.). MDA: A Formal Approach to Game Design and Game Research.

http://bit.ly/MDA_AFormalApproach A paper presenting the MDA framework (Mechanics, Dynamics, and Aesthetics), developed and taught as part of the Game Design and Tuning Workshop at the Game Developers Conference, San Jose 2001-2004

Hardman, C. (2013). Mechanics, Dynamics, Aesthetics.

<http://bit.ly/MechanicsDynamicsAesthetics> An article, stating the case for the MDA framework, with a particular focus on aesthetics and genres in game design



Resources:

Henry, A. (2017). SuperBetter Is a Game that Rewards You for Healthy Living and Working Towards Your Goals.

<http://bit.ly/SuperBetterIsAGame> A web article, presenting 'SuperBetter' - a web-based game designed to get you on the road towards being a smarter, stronger, more resilient, and an overall better person

Chiang Fu, Y. (2011). The Game of Life: Designing a Gamification System to Increase Current Volunteer Participation and Retention in Volunteer-based Nonprofit Organisations.

http://bit.ly/TheGameOfLife_Designing An article: The Game of Life: Designing a Gamification System to Increase Current Volunteer Participation and Retention in Volunteer-based Nonprofit Organisations

The Humanitarian Passport Initiative.

<https://hpi.openbadgepassport.com/> The Humanitarian Passport Initiative (HPI), that the Academy is involved with, supports the creating, issuing, claiming and management of badges, allowing humanitarians to have their skills, experience and learning recognised against a common professional development framework and learning quality standards.

Nguyen, T. (2014). Hacking Into Your Happy Chemicals: Dopamine, Serotonin, Endorphins and Oxytocin.

<http://bit.ly/HackingIntoYourHappyChemicals> An article, exploring some simple ways to hack into our positive neurochemicals, in order to be in a positive state

Find out more at
bit.ly/AcademyLearningArchitecture

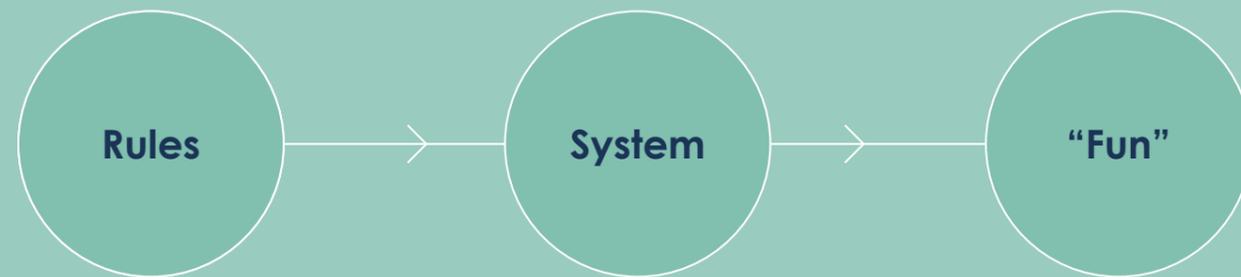
Thinking

Section 8 Games

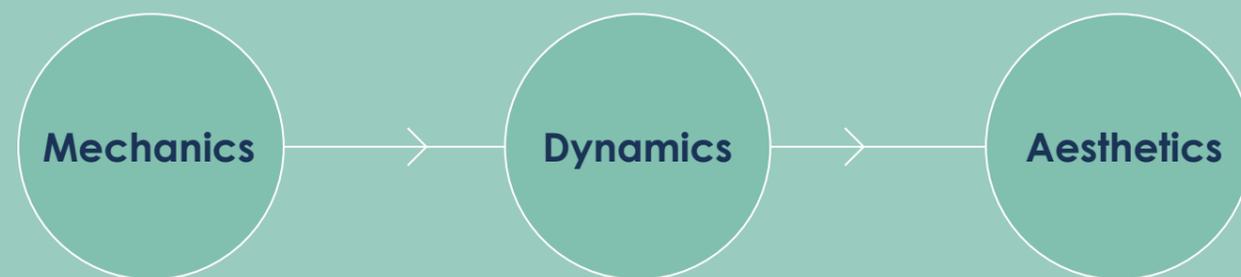


Game Mechanics and Game Dynamics: MDA framework

The MDA framework (Mechanics, Dynamics, Aesthetics) formalises the consumption of games by breaking them into their distinct components:



...and establishing their design counterparts:



Designer



Player

The designer and player each see the game from a different perspective.

Mechanics are the “rules” of the game.

- How is the game set up?
- What actions can players take, and what effects do those actions have?
- When does the game end?
- How does the player know the game has ended? How do they know if they won or completed it successfully?

Dynamics are the games ‘system’.

- They describe the play of the game when the rules are set in motion.
- What strategies emerge from the rules? Do they encourage collaboration, risk taking, caution, or something else?
- How many players are there? How do they interact with each other?

Aesthetics is how players experience the game, the ‘fun’.

- They describe the effect that the dynamics have on the players themselves.
- Is the game fun? Or is play frustrating, or boring, or interesting?
- Is the play emotionally or intellectually engaging?

Think of Aesthetics as the overall goal of a learning opportunity, only instead of knowledge and behaviours, they refer to experience and feelings. Many games contain elements of many different aesthetics, but they usually only focus on 2-4 of them. It's more important to get to these 'core' aesthetics that more strongly define the game.

Here are nine examples of aesthetic goals:

- 1. Sense Pleasure:** Enjoyable to the senses; good graphics/sound and music/ stimulation of feelings.
- 2. Fantasy:** Playing as something you aren't able to be in real life; you become an adventurer on a journey. E.g. a soldier in war, a hunter, etc.
- 3. Narrative:** Drama, game follows an intriguing and well-designed story.
- 4. Challenge:** Overcoming obstacles. Challenge is not difficulty; making something hard isn't making it a good challenge. E.g. Mario Bros.
- 5. Fellowship:** Cooperation and working as a team; games often feature fellowship required to win.
- 6. Competition:** Express your superiority and dominance over your peers in competition. Usually multiplayer online games like Call of Duty, Halo, Warcraft.
- 7. Discovery/Exploration:** Finding new things. Games with a lot of choice focus on discovery, it makes you want to find out what happens based on what you choose to do.
- 8. Expression:** Provide lots of customisation and push the capability of being unique and standing out amongst other players; lots of different pieces of armor and weapons, classes, skills, etc. to customise characters with.
- 9. Abnegation:** Playing a game that doesn't make you think very much or try very hard; you just want to do the same (often simple) tasks over and over again.

Games & Learning design:

Incorporating emotion and experience

When thinking about games for learning, we should differentiate between game dynamics, game mechanics and game aesthetics. Game mechanics are the 'physical' things - the way things move, the barriers in the way, the rules of the game 'world'. Clicking on objects, walking, looking around, scoring and ranking are all part of the game's mechanics. Mechanics are built from code, and can be observed, described and counted. Game dynamics describe a game's effect on the player: the behaviour and the emotions it generates. Behaviours might be competition, collaboration, risk or resource management, and so on. The emotions you are trying to create or avoid might be anticipation, trust, recklessness, triumph over adversity. Dynamics are created by mechanics. Aesthetics are the experience of the game, how play is perceived. To use games effectively in learning design, we create a balance between these three elements. When you are designing mechanics, always think first about the game dynamics that you are aiming for and think about how the mechanics will affect them, either positively or negatively. Incorporating emotion and experience in learning design by considering game dynamics and aesthetics can foster learning and collaboration.

Incorporating goals and purpose

When building your game mechanics, think about the goal, about your learning community's purpose. Learning communities should show a wide range of individual behaviours, united around shared purpose, with shared values. Do your games promote competition or collaboration? What does 'winning' look like? Position at the top of a ranking? Helping others advance, or helping others avoid the bottom? Straightforward competition may be of less value than complex collaboration in a learning community, and the games you adopt should reflect that. Technology often pushes us towards numbers and easily quantifiable, assessable data: things that we can score and measure, award badges for, and put in a ranking table. How will you balance this against the need to explore behaviours and attitudes, which are much harder to measure?