



The MDA Design Model

UNIV 7: EVOL OF TABLE GAMES

Day 1

Motivation

- Games can be complex – small changes in rules can have a big impact
- Unique medium, in that their consumption is “unpredictable”
- Need some way to translate between different interactions with games
- Also need a shared language to help decompose and study games



MDA Design Model

- Mechanics – the abstract representation of the rules, data, and algorithms.
- Dynamics – the run time behavior of the mechanics acting on player inputs and the other players outputs
- Aesthetics – the desirable emotional response evoked by the player when interacting with the game system.



Aesthetics

- What makes a game fun?
- Short taxonomy of components:
 - Sensation – Game as a sense pleasure
 - Fantasy – Game as make-believe
 - Narrative – Game as a drama
 - Challenge – Game as an obstacle course
 - Expression – Game as self-discovery
 - Fellowship – Game as a social framework
 - Discovery – Game as uncharted territory
 - Submission – Game as a pastime
 - Competition – Game as a contest



Let's Try It Out!

- Aesthetics: Sensation, Fantasy, Narrative, Challenge, Expression, Fellowship, Discovery, Submission, Competition
- Charades:
- Pokémon:
- The Sims:
- Doom:
- Sudoku:

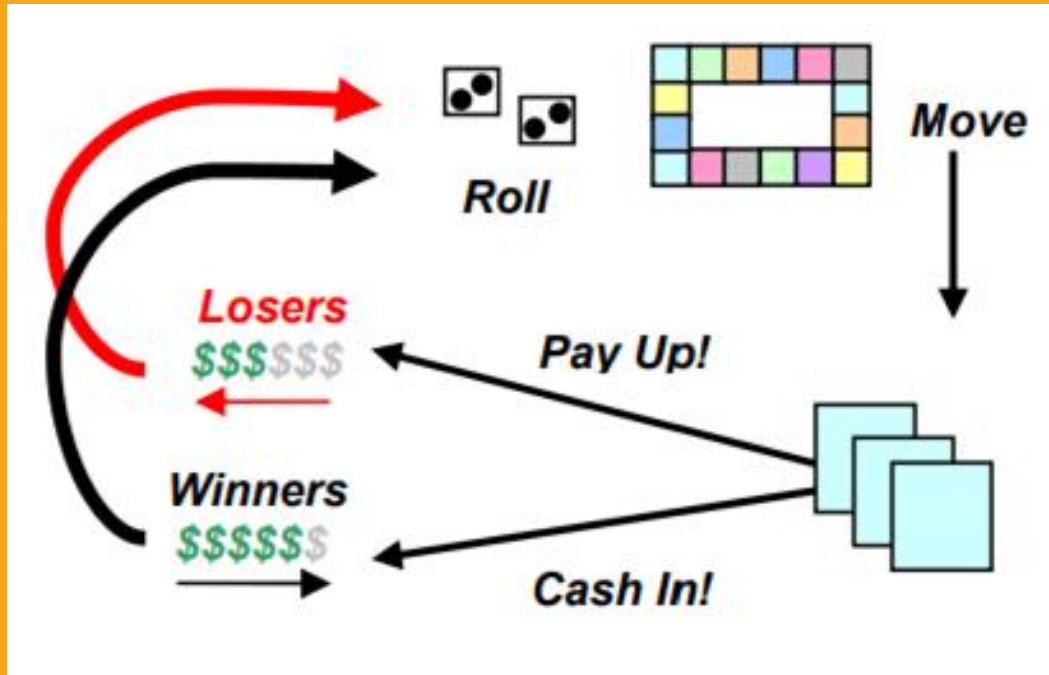


Dynamics

- Dynamics work to create specific aesthetic experiences
- Examples:
 - Fellowship can be encouraged by having winning conditions that are difficult to achieve alone (Pokémon & Pokedex)
 - Expression comes from dynamics that encourage individuals to leave their mark. (The Sims & building and customizing player homes)
- Looking at dynamics is also important as it gives us a tool to analyze and model player behavior and outcomes.



Dynamic Model Example



- Monopoly!
- Has a “pretty rough” feedback system – rich just become richer
- Most players become uninterested; game becomes boring.



Mechanics

- Are the various actions, behaviors and control mechanism the players have access to.
- Examples:
 - Poker: random cards & betting -> bluffing dynamic
 - Call of Duty: spawn points & player killing -> spawn camping
 - Baseball: batting order & pitchers -> lefty vs righty, heavy hitter 4th
- How would adding “subsidies” for poor players help change the dynamics in monopoly?



Let's Try It Out!

- Groups of 2-4 participants
- Pick one game, (doesn't have to be an analog game) and analyze it through the MDA Framework
- Want 1 mechanic, that helps create a dynamic which leads to an aesthetic.
- Will share after about 10 minutes
- Reference:
 - Mechanics – the rules, actions a player can take
 - Dynamics – the systems that evolve out of player input and mechanics mixing
 - Aesthetics – the emotional responses evoked in the players



Citations

[1] Hunicke, Robin, Marc LeBlanc, and Robert Zubek. "MDA: A formal approach to game design and game research." *Proceedings of the AAAI Workshop on Challenges in Game AI*. Vol. 4. No. 1. 2004.

