Game Design Atoms

CSC430/HCI530

Game state and game view

- State: collection of all information that may change during play

- View: the portion of the state a player sees

- Does state == view for some games?

Players, avatars, and game bits

- Players: the humans who play the game(duh)

- Avatars: the representation of a player in the game space

- Bits: items required to play the game (for board games – physical bits)

Mechanics

- A.k.a. rules
- Ingredients of game design
- Classes:
  - Setup
  - Victory conditions
  - Progression of play
  - Player actions / verbs
  - Definition of game view(s)

Dynamics

- Emergent from mechanics
- Territorial acquisition, race to the end, spawn camping...

Goals and theme

- Goals: provide rewards that motivate players

- Theme: an associative overlay of the game view (what the game is "about")

- Theme: not part of gameplay, yet makes the game more appealing

Putting it all together

- Game state, avatars, mechanics, dynamics, theme... what comes first?
  - Whatever you want
  - But, typically (for good games), either mechanics or dynamics
- A game around a core mechanic: Mario (jump over, under, etc obstacles)
- A game around a core dynamic: Mario Kart (race to the end)

Challenge 1

- Explore "race to the end": design a game around this dynamic
- Allow two to four players, be about progressing on a path, make them go from A to B. First player at B wins
- Suggested process:
  - Determine a theme and goal – where are they going, and why?
  - Identify mechanics – start simple, visualize a track, break it up into different sections; get your players moving – e.g., roll a die.
  - Next, think of ways to make the game more interesting. Introduce advantages/drawbacks. Does the narrative/theme suggest an obvious mechanic here?
  - Introduce conflict. How can you screw up someone else's progress or accelerate yours?
  - Playtest (always!)
  - Create deliverable

Challenge 2

- Explore "territorial acquisition": design a game around this dynamic

- Allow two to four players, have some territory which is to be acquired (not necessarily physical). One of two win conditions: first player to grab all territory; or the player with the most territory after X turns.

- Suggested process:

  - Determine a theme (if you desire, but even chess has a theme)

  - Continue using the process from Challenge 1