Thursday, October 4, 12

1st: Nail down lab times

2nd: Books coming?

3rd: class is experimental, taught more like an art class, shorter lectures, working in class.

4th: anyone have interesting games from design journal that they want to share?
Game Design Basics

Getting started

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review for most, known subconsciously, move to conscious
basics and game design building blocks
then we'll try it out
What is Game Design

Designing experiences
- done through creating mechanics

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the heart of game design: making an interactive experience for the player. More akin to designing amusement park. Perhaps reason
designers like experiences “on rails”? Amusement parks: design not just excitement (roller coasters/rides): design lines/moments
between excitement. People need down time.
in games, done indirectly: creating rules/mechanics - this is the heart of what designing in game design
need Balance: too few rules: confusing, too many rules: overwhelming
How do you know? play test
What is Game Design

Give the player **meaningful** and **interesting** decisions

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If you want to design good games that players find fun, give players meaningful and interesting choices. This is different for different types of players, which is why it’s important to know who you are making a game for! What does meaningful and interesting mean?
Interesting choice:

- no clearly better option
- options are not equally attractive
- the player must be able to make an informed choice

Better option: mud vs chocolate
Attractive: white chocolate vs dark chocolate
Informed: brown thing or brown thing
Meaningful choice:

- **discernable**, noticeable effect
- **integrated**, significant impact

Fable II – choices changed the way you look, the way the world looks, and the way people interact with you. In order to have meaningful choices within story means that the player’s choices should have an impact on the world and storyline that they notice.
What game design is not

programming

- tool for creating a specific type of game (video game)

graphics

- adds to the feel of the game, but not required to make a game

You can design games without doing any programming: board games, card games, etc. We will be doing a lot of it. Game design is an art, but it's not the graphics. You can have games with no graphics. You can do graphics that are not games.
Core mechanics
- without this mechanic it would be a different game

Core dynamics
- the general goal of the game

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core mechanic: platformer without jumping is no longer a platformer. FPS without shooting is an FP. Katamari Damacy without rolling stuff up is a strange exploration game

core dynamic: main goal of the player. FPS: destruction, Katamari: collection

Mechanics should support dynamic
There are more core dynamics than this, these just show up a lot

Territorial Acquisition
*Risk, Carcassonne*

Prediction
*Roulette, Rock Paper Scissors*

Spatial Reasoning
*Tetris, Pente*

Survival
*Amnesia*

Destruction
*Every FPS ever*

territorial acquisition: Get territory, generally only so much to go around
prediction: guessing what’s going to happen. tend to be luck based, or figuring out odds
spatial reasoning: where things go/fit, setting up for future moves
survival: often a losing condition, and almost always a supporting dynamic (Haven’t played amnesia, might have combat)
destruction: kill/destroy, many games use this core dynamic
### Common core dynamics

<table>
<thead>
<tr>
<th>Territorial Acquisition</th>
<th>Building</th>
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<tbody>
<tr>
<td><em>Risk, Carcassonne</em></td>
<td><em>RPGs, Minecraft, SimCity</em></td>
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<th>Prediction</th>
<th>Collection</th>
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<tr>
<td><em>Roulette, Rock Paper Scissors</em></td>
<td><em>platformers, CCGs, match 3</em></td>
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<tr>
<th>Spatial Reasoning</th>
<th>Chasing/Evading</th>
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<tr>
<td><em>Tetris, Pente</em></td>
<td><em>Pac-Man</em></td>
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<tr>
<th>Survival</th>
<th>Trading</th>
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<tr>
<td><em>Amnesia</em></td>
<td><em>Settlers of Catan, Pokémon</em></td>
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<th>Destruction</th>
<th>Race to the End</th>
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<tr>
<td><em>Every FPS ever</em></td>
<td><em>MarioKart, Chutes and Ladders</em></td>
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**Building:** Building objects or building power. In RPGs, building up character’s power (character development)

**Collection:** collecting things, or matching things

**Chasing/Evading:** Capture prey, or evade predators

**Trading:** More common as a core dynamic in board games, but also shows up as a secondary dynamic in video games

**Race to the End:** Who can get to the end the fastest, who can be first - often featured in kids games
Game Atoms

Game building blocks

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What things do we need to build a game? Pieces of game design ahead
Understanding games: look at the big picture.

Game state includes things the player doesn’t know about. Keep track of what needs to be tracked! All the things that would need to be set to restore a game, that’s game state.

Chess: list of pieces, their position on the board, information on previous moves that would affect future moves (rules for castling, etc), whose turn it is.

game view: What part of the state the player is aware of. Balancing act, show too much overwhelming, show too little, uninformed, can’t make interesting decisions. Sometimes game state and game view are the same: Chess, most times not. RTS fog of war for instance.
Avatars - represent the player in the game

Not all games have avatars, but all games have players.

Want the avatar/avatars to stand out from the other characters (also referred to as game bits), player is special.

Sometimes player playing themselves. Poker, Risk, Civilization, Magic the Gathering, etc.

Current condition of all avatars and game bits is part of the game state.
As discussed on Thursday, mechanics are rules of the game. What you program, listed in game manual.

Mechanics are the rules that act upon the players, avatars and game bits, game state and game views, and describe all the ways to change the game state.

Most games have these mechanics:

- **Setup**
- **Victory conditions**
- **Progression of play**
- **Player actions**
- **Definition of game views**
Dynamics - The way the player interacts with the game. What you would need to capture in an AI if you wanted to simulate the player

game-supported dynamics

meta-game dynamics
Goals - Provided to reward and motivate players through the game

Victory conditions
mid-game goals
- missions/quests
Theme - Gives a backdrop for your game

Outside of the mechanics, but when chosen well, supports them

The flavor of your game. What is the setting, the back story, the world story? Not all games have theme: Tetris, Bejeweled, etc. Outside of the mechanics, technically, but they can be chosen to support each other and makes the mechanics feel more natural. Clue could just as well be a game about finding a lost object, but the process of narrowing down the list of possibilities is more natural around finding a murder suspect.
Putting it all together

Can start from anywhere, but need:

desired **core dynamic**

**mechanics**: starting, progression, player actions

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You can start with a theme - many IP based games do this. Dynamic and mechanics chosen to support the theme. Sometimes works better than others (Harry Potter - combat game, what?!)

can start with a core dynamic - many games start with the idea of what type of game they want to create - then decide on mechanics to support that dynamic. e.g. resource collection: how does player collect resources? What is being collected? Why is it being collected?

or even a mechanic. Katamari Damacy started out as a mechanic, as did Portal
Not an interesting game, yet!

Add elements:
- strategy or chance
- interactions between players if multiplayer
- add and remove mechanics

From there, make it interesting! Starting out, have a game like bartok which is boring. But adding new elements makes it more interesting. Add a sense of strategy (showing cards) or chance (draw 2 card), add interactions between the players (trading, stealing, draw 2 card). Basically adding and removing mechanics

Give player places to have interesting and meaningful choices.
Paper prototype

Create a game about “race to the end” for 2-4 players.

Start at Point A, race to Point B, first person to point B wins.

You design: theme, game bits, mechanics.
Determine a **theme** and a **goal**.
- Where and why? Theme for interaction = interesting.

**Identify mechanics.**
Start simple. How many spaces to move? How do players move?
Make it more interesting: How do player’s interact? (no interaction = Chutes & Ladders) Look at narrative & theme of game for suggestions

**Identify conflict.**
How do you screw up someone else’s progress or accelerate yours? What’s the tradeoff? (don’t want just an arms race)

**Playtest.**
Every time a mechanic is added, test the game. More/less fun? Support the desired core dynamic?

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**Thursday, October 4, 12**
Theme and goal: Where and why? Theme for interaction = interesting.
mechanics: Start simple. How many spaces to move? how do players move?
Make it more interesting: how do player’s interact? (no interaction = Chutes & Ladders) Look at narrative & theme of game for suggestions.
conflict: How can you screw up someone else’s progress or accelerate yours? What’s the tradeoff? (don’t want just an arms race)
playtest: Every time a mechanic is added, test the game. More/less fun? Support the desired core dynamic? Does it work the way you thought it would?
Process variant

Identify **mechanics**.

Determine a **theme** and a **goal**.

Identify **conflict**.

**Playtest.**

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Playtest: Every time a mechanic is added, test the game. More/less fun? Support the desired core dynamic? Does it work the way you thought it would?
Discussion

Any surprises?

What worked, what didn’t?

Is your game fun? What direction would you take it further?
Assignment #2

Choose a game you don’t like. List the mechanics and core dynamic of the game.

Brainstorm some ideas of changes to the mechanics that would make the game something you would enjoy.