Lecture 2:

Nature of Games
What is a Game?
What is a Game?

Hopscotch Rules

- Each player has a unique marker
- Toss marker from starting line
  - Marker hits squares in sequence
  - Progress to next square each turn
- Hop through squares and back
  - Skip over square with marker
  - Hop on one foot
  - Except for side-by-side squares
- If fail, repeat at next turn
What is a Game?

**YoYo's**

Natural or Enamel Finished YoYo's are sure to put a great spin on your promotions. Imprinting on one side or both.
What is a Game?

Contest Rules

- Two attempts per trick
  - 5 points for success on 1st
  - 3 points for success on 2nd
- Trick is complete when
  - String fully wound on axel
  - Yo-yo is back in hand
- Disqualification if
  - Player moves feet
  - Throw leaves trick box
What is a Game?

Rules

- Players take turns
- Spin the number wheel
- Move that many spaces
- When land on space…
  - Ladders take you up
  - Chutes take you down
- First one to 100 wins!
What is a Game?

Nature of Games
Definitions of Games

- Adams: *Fundamentals of Game Design*
  A game is a form of *interactive entertainment* where *players* must overcome *challenges*, by taking actions that are governed by *rules*, in order to meet a *victory condition*.

- Salen & Zimmerman: *Rules of Play*
  A game is a *system* in which *players* engage in *artificial conflict*, defined by *rules*, that results in a *quantifiable outcome*.
Definitions of Games

- Adams: *Fundamentals of Game Design*
  A game is a form of interactive entertainment where players must overcome challenges, by taking actions that are governed by rules, in order to meet a victory condition.

- Salen & Zimmerman: *Rules of Play*
  A game is a system in which players engage in artificial conflict, defined by rules, that results in a quantifiable outcome.

Nature of Games

- Players
- Challenges
- Rules
- Goals
Design Decisions

• Players
  • How many players are there at a time?
  • Who or what is the player in the world?
  • Specifies a notion of identity

• Goals
  • What is the player trying to achieve?
  • Defined by the game or by the player?
  • Specifies the player focus
Design Decisions

• **Rules**
  - How does the player effect the world?
  - How does the player learn the rules?
  - Specifies the *boundaries* of the game

• **Challenges**
  - What obstacles must the player overcome?
  - Is there more than one way to overcome them?
  - Specifies the fundamental *gameplay*
(Other) Design Decisions

• **Game Modes**
  • How are the challenges put together?
  • What is the interaction *context*?

• **Setting**
  • What is the nature of the *game world*?
  • What is the *perspective* (e.g. side-scroller, 3D, etc.)?

• **Story**
  • What *narrative* will the player experience?
  • How is it connected to gameplay?
What about Fun?

- But how do we create **good** games?
  - Games are a creative medium
  - Games are designed to entertain

- **Question**: What makes a game **fun**?

- **Better**: Why do people play games?
Casual vs. Core

• **Core gamers** play lots of games
  • Almost always to finish games they play
  • Want hard games; will tolerate frustration

• **Casual gamers** play for enjoyment
  • Will stop when the game stops being fun
  • Challenges must be reasonable

• Harder to distinguish than you think
  • Something designers are paying less attention to
Play Length

• How short a game can I play and have fun?
  • Least meaningful unit of play
  • Console: 30 minutes+ is acceptable
  • Mobile: No more than a minute

• Casual often means short play units
  • But can have sophisticated gameplay!
  • Example: *Plants vs. Zombies*

• But long play length is always core
Psychology: Bartle’s Four Types

- Theory of players in online games:
  - **Achiever**: Overcome challenges, gather rewards
  - **Explorer**: Discover, understand game world
  - **Socializer**: Interact & role-play with others
  - **Griefer**: Distress other players in the game

- Games often designed for multiple groups
  - **Example**: *World of Warcraft*

- But just one *model* of player psychology
The Explorer
### Dueling Design Philosophies

#### Narrative
- Games are a *story medium*
  - Focuses on storytelling
  - Traditional narrative structure

**Advantages:**
- Emotionally compelling
- Strong artistic vision

**Disadvantages:**
- Author *voice* over player voice
- Poorly defined mechanics

#### Ludic
- Games are about *mechanics*
  - Focus on gameplay, rules
  - Storytelling is minimal

**Advantages:**
- Focus on player *agency*
- Tight, well-defined gameplay

**Disadvantages:**
- Lack of player motivation
- Hard to distinguish yourself
The Dangers of Pure Story

Deuce
You're pretty direct. Uh... so how are things going with you?
The Dangers of Pure Story

What is the player doing?

Deuce
You're pretty direct. Uh... so how are things going with you?

What is the player doing?
But Ludic is Not Everything
But Ludic is Not Everything
# Game Design Must Be a Balance

## Motivate the Player
- Needs a story *framework*
  - Setting to work within
  - Strong sense of identity
  - Challenges with context

## Empower the Player
- Drama from player *actions*
  - Define what the player can do
  - Challenges reward or punish
  - Freedom in achieving goals

---

Games are **dramatic**, but they have their own **conventions**.
But This Course Will Be Ludic-Centric

- Will focus on **design tools**
  - Techniques that we can train
  - Using them requires practice
  - Implementing them has technical challenges

- But design is much more
  - You use tools to create art
  - Can only learn by doing
  - With critiques from us
  - Like a studio course

- Keeping balance is up to you
The Adams Approach

- Games as wish-fulfillment
  - I want to __________

- Questions to answer:
  - What dream are you satisfying?
  - What *goals* does this dream create?
  - What *actions* achieve those goals?
  - What *setting* does this dream create?
  - What is the appropriate *interface*?

- Use this to define *gameplay*
The Adams Approach

- Games as *wish-fulfillment*
  - I want to __________

- Questions to answer:
  - What dream are you satisfying?
  - What *goals* does this dream create?
  - What *actions* achieve those goals?
  - What *setting* does this dream create?
  - What is the appropriate *interface*?

- Use this to define *gameplay*
Exploring Gameplay

- To design games, you must play games!
  - Experience many different types of gameplay
  - Do not play the same type of game all the time

- Flash portals are still a good resource
  - Games are small but focus entirely on gameplay
  - Kongregate & Armor Games are some of the best
  - Puzzle game? Look at Kongregate first

- This is how we will use Piazza this semester
Have Realistic Goals

- **Goal**: Size of a large, elaborate Flash game
  - Quality should be 3.5+ stars on Kongregate
  - Can be played instantly with minimal tutorial

- **Quality over Quantity**
  - Ten amazing levels > 30 poor levels
  - Balance number of challenges with level size
  - Avoid feature bloat (e.g. power ups)

- We will give you constant feedback on this
Commercial Examples

- **Braid**: Puzzle platformer with time-travel mechanics
- **Limbo**: Dark platformer with realistic physics
- **Hotline Miami**: Top-down stealth and action
- **Clash of Heroes**: Match 3 + Turn-based strategy
- **Guild of Dungeoneering**: RPG + CCG
  - Use cards to build the dungeon that you explore
- **Monument Valley**: Puzzle-based exploration
- Think **indie games**, not boxed retail
Examples from Previous Semesters

- **Arc en Ciel (Spring 2015):**
  - Platformer where you paint platforms, while enemy erases

- **Dash (Spring 2014):**
  - Action game with dash mechanics to avoid enemies, obstacles

- **Lifted (Spring 2010):**
  - Physics-based puzzle game of alien abduction

- **Exodus Protocol (Spring 2013):**
  - X-Com style strategy game with only three units

- **Ensembler (Fall 2011):**
  - Classical music rhythm game with you as conductor
Examples from Previous Semesters

- **Arc en Ciel (Spring 2015):**
  - Platformer where you paint platforms, while enemy erases

- **Dash (Spring 2014):**
  - Action game with dash mechanics to avoid enemies and obstacles

- **Lifted (Spring 2010):**
  - Physics-based puzzle game of alien abduction

- **Exodus Protocol (Spring 2013):**
  - X-Com style strategy game with only three units

- **Ensembler (Fall 2011):**
  - Classical music rhythm game with you as conductor

Many are available at [http://gdiac.cs.cornell.edu](http://gdiac.cs.cornell.edu)
Summary

- Games are not necessarily well-defined
  - They have players, goals, rules, and challenges
  - Not much agreement on anything else

- Game design is about finding balance
  - Want narrative to motivate players
  - But need ludic elements to give agency

- Will start with the Adams approach
  - Create a setting or narrative framework
  - Use that to guide the ludic elements