Foundations of Interactive Game Design (80K)

week two, lecture one
Today

• Our second quiz
• Prior 80K game demo
• Game mechanics
• Game themes
• Four game demos
• What’s coming up
Quiz
According to Fullerton, what is the primary role of a game designer?

A: Advocate for the player
B: Holder of the creative vision
C: Deciding voice in production decisions
D: Awareness of what sells
One way *Passage* represents love is

A: By changing the background music when with a partner
B: By having partner do support moves in combat
C: Through witty romantic dialogue
D: By making some spaces impassable with a partner
Which is *not* an element of Fullerton’s playcentric design?

**A:** Player experience goals

**B:** Prototyping and playtesting

**C:** Design documentation

**D:** Modeling and rigging
Which is *not* a recommendation of Kim’s for puzzle design?

A: Establish attractive goals
B: Make a novel twist on something familiar
C: Create reusable structures
D: Use appropriate difficulty level
Which is *not* an element of Fullerton's definition of games?

**A:** Engages players in structured conflict

**B:** Connects players through lusory attitude

**C:** Resolves its uncertainty in an unequal outcome

**D:** Closed, formal system
Demo: Salvage

by Jon Holtan &
Sam Wolpert
Let’s talk about gameplay
Gameplay

• Operational logics characterize the system
• To start thinking further about gameplay, we’ll think about player actions or verbs
• Let’s look at a common action: jumping
What is *jumping*?
Jumping in checkers

- A core action of Checkers is piece *movement*.
- The fact that movement is turn-based is very important.
- So is the fact that pieces move in defined ways on defined spaces — diagonally on squares.
- This interacts with the *jump* action — being able to jump over an enemy piece to another open space beyond, capturing that piece.
Jumping in *Pitfall*!

We need to all know the game first
Pitfall!, David Crane, 1982
What did you notice about jumping in *Pitfall!*?
Jumping in *Pitfall!*

- A core action of *Pitfall!* is character movement.
- The fact that movement is real time, along with environment/enemies, is very important.
- So is the fact that the character moves, and environment/enemies are arranged, in continuous space.
- Continuous space and time interacts with the jump action — being able to jump from any point, to any reachable point, at any time.
Jumping in *Pitfall*!

- This kind of jumping more generally: moving away from a source of gravity to (try to) land on a/another (temporarily) safe spot

- The key things to understand about the Pitfall jump: How hang time compares with log movement speed, how jump distance compares with alligator head spacing

- We see the *mechanic* growing from the action
Game mechanics

• Some game genres are named in ways that hint at their core mechanics

• Can people here think of examples?

• First-person and third-person *shooters*

• More obscurely: jumping for *platformers*, finding/selecting for *hidden object* games
Describing mechanics

• The core mechanics of a game are what players do over and over when playing — jumping, shooting, extracting resources, moving pieces

• There are other mechanics for other things that can be done — swimming, castling

• Some designers and theorists use the term “mechanics” for everything that governs the behavior of the game system — every rule
Your one page mechanics assignment

• Choose a game, ideally with mechanics that interest you for your essay and project

• Identify and describe at least three mechanics of the game. Argue for at least one of them as a core mechanic

• For extra credit, argue for dynamics that arise from one or more of the mechanics you identified (more on dynamics this week)
What did you notice about jumping in *Mario* versus *Pitfall!*?
Jumping in *Mario versus Pitfall*!

- Same jumping in continuous space
- Less precision, less lethality, revealing hidden items, more exploration/play, jumping on enemies to kill them!
- These are partially level design differences, but also come through powerups, etc
- Again, dynamics and aesthetics arising...
- Compare with jumping in *Journey*
What are the core mechanics of Super Mario Bros.?
Core mechanics of Super Mario Bros.

- Walking
- Running
- Jumping!
- ... across gaps, onto enemies, for coins, to activate surprises, to destroy blocks, to kill enemies on blocks, into pipes...
- Rules: touching an enemy (without landing on them) or falling past floor is death
Platformer genre

Precise walking, running, jumping are still core mechanics today
Core mechanics of *Doom*

- Moving forward and back along depth plane in a *first person* perspective
- Moving side to side (sidestepping or *strafing*) along depth plane
- Turning
- Shooting where you are looking
- Gathering health and armor boosts
- Rules: damage from enemies, environment
First Person Shooter

genre

Precise navigation and shooting are still core mechanics today
Core mechanics of *Tetris*

- Rotating pieces
- Dropping pieces
- Moving side to side
- Rules: making complete lines to clear them, unpredictable new pieces fall from top as soon as previous reaches bottom, speed increase, reaching the top is death
Tile Matching genre

Following match rules is still a core mechanic today, but often matches follow color.

Obviously that was not possible on a computer without color display...
Upcoming

- Readings continue (will update syllabus with a reading for next Friday — been sick)
- Team selection document due next week
- One page mechanics analysis next week
- Tutorial #2 next week