Foundations of Interactive Game Design (80K)

week two, lecture one
Today

- Announcements
- Demos of *Cursor* *10* and *Timebot* (& video of *The Misadventures of P.B. Winterbottom*)
- Fullerton’s formal elements, *Tales of Arabian Nights*, and more on rules
- Ran out of time for: Demo Atari VCS *Breakout* and discussion of Sudnow’s *Pilgrim in the Microworld*
- Preview of this week
Announcements

• **Noah’s** office hours: 4:00–4:45pm Tu/Thu, Engineering 2, room 271

• TA office hours: **Adam** 3:30–5:00pm Wed, **Anne** 12:00–2:00pm Thu, **Teale** 10:00–11:30am Wed (may change), E2 room 393

• Yesterday was the deadline for submitting requests to change sections — we’ll be contacting those who submitted requests
An opportunity

• Studios like game licenses because of the built-in player base

• UCSC has a huge Grateful Dead archive — and they have a huge fan base

• Archive open to 80K projects using GD material — more info next Thu
Cursor *10

Cursor *10
Timebot

http://www.piratejuice.com/games/timebot/
Timebot
The Misadventures of P.B. Winterbottom

http://www.winterbottomgame.com
THE MISADVENTURES OF P.B. WINTERBOTTOM
These three games

- What do we notice about them?
- You “collaborate with yourself” in all three, over time
- But the types of challenges and specifics of collaboration/time mechanic are different
These three games

- **Cursor * 10** focuses on mouse movement & linear progression in an abstract world

- **Timebot** focuses on logical door & trigger puzzles w/ overlapping time in world with robots, gears, energy levels, time travel, etc

- **Winterbottom** focuses on platforming challenges (getting to locations, gathering objects) and direct interaction with past versions in developed silent-film world
Innovative gameplay of the sort you might create
Fullerton’s formal elements
Invitation to play and number of players
Roles of players and interaction patterns

• Equal (Monopoly), hard differentiated (Mastermind), and soft differentiated (RPGs)

• Single player vs game (KotOR)

• Coop vs game (LoTR board game)

• Player vs player (chess)

• Multiple individuals vs game (bingo)

• Unilateral competition (Fury of Dracula)

• Multilateral competition — three or more (Monopoly)

• Team competition (charades)
The GM

- Many of you interested in RPGs
- The GM is a classic “player with a different role” for story-oriented gaming
- But a good GM is hard to find — need to invent storyworlds, manage them, run rules, play NPCs, etc — not always available
Replacing the GM

• Computer RPGs use certain techniques we’ll discuss later (quest flags, dialogue trees, FSMs, etc)

• Those may not be the right structures for you — making a small, innovative game — and certainly aren’t the only possibilities

• Books (e.g., *Fighting Fantasy*) show one option, but board games more interesting?
Tales of the Arabian Nights
Fullerton’s objectives

• Capture or kill (checkers)
• Chase (tag)
• Race (Chutes & Ladders)
• Alignment (Othello)
• Rescue or escape (Super Mario Bros.)

• Forbidden act (Operation)
• Construction (SimCity)
• Exploration (Adventure)
• Solution (Deadline)
• Outwit (Trivial Pursuit)
• Completion?
Fullerton on procedures and rules

- In controls or manual? (computer or tabletop)
- Starting actions
- Only available under some conditions
- Taken by the computer system (potentially much more complex)
- Rules defining objects and concepts (RTS units)
- Rules restricting actions (staying in bounds)
- Rules determining effects (too much damage)
Rules on three levels: Salen and Zimmerman

- Operational: The “rules of play” of a game. Surface visible rules.
- Constitutive: Underlying formal structures “below the surface” of the rules presented to players. Logical and mathematical.
- Implicit Rules: Unwritten, implied, rules for a game. Etiquette, good sportsmanship, access to play space, etc.
Play proceeds by turns. On your turn, spin spinner (chooses number from 1-6), move pawn many squares forward. Pawns may share squares. If pawn ends on picture square at bottom of ladder, go up it to final square....
... as a state machine

- 101 possible states: starting position + 100
- Input events: #1–6, generated randomly
- Transition arcs are (for most states) those for 6 possible inputs
- Most transitions are to state equal to current plus input, except chutes and ladders, which transition to arbitrary states
Chutes and Ladders

state 0

Shows transitions only for state 0
Constituative

Chutes and Ladders

• Instead of state machine, S & Z present adding/subtracting up to 100, plus translations of certain numbers into others

• There are multiple representations that make sense for any given logical structure

• The underlying structure could be re-skinned (new theme) and operational rules could change (e.g., die instead of spinner)
Implicit rules

• Social agreements about how games are played, which can vary by community

• Preventing bodily harm, fairness in face of the unforeseen (injury, weather), keeping things interesting (FPS camping, turn timing)

• Also physical givens: games meant to be played under earth gravity, players must be able to reach game pieces, etc.
More on formal elements in the future
This week
First assignment due
Tutorial #1

- Due in section this week, graded on screen
- Covered in last week’s sections — also in detailed tutorial online (link from syllabus)
- Required customization: a clown with different behavior
- If you can: A better game
Thursday

• Read from *Game Design Workshop*

• Read from the first PhD dissertation in game studies

• We’ll talk about game concepts, interactive fiction, and more