Foundations of Interactive Game Design (80K)

week one, lecture two
Today

• Demos of Spacewar! and Orbient
• Game design, play(er) centric & semiotic
• Demo of The Sims 3
• What is a game?
• Preview of next week
Spacewar!
http://spacewar.oversigma.com/
Spacewar! demo

Keyboard controls:

a s d f
k l ;’
Spacewar!

- There were earlier computer/video games. But they simulated non-computer games: Checkers (1952), Tic-Tac-Toe (1952), Ping Pong (1958)

- In *Spacewar!* we see a vocabulary of computer games first emerge: navigation, projectiles, simulated gravity

- Huge influence on future games (e.g., Atari founder Bushnell’s *Computer Space*, 1971)
Spacewar!

- *Spacewar!* was also a feat of technology (tech demo for PDP-1) and open source

- *Spacewar!* also shows games as media — science fiction (don’t forget Sputnik) not traditional game simulation

- *Spacewar!* also is an important social game — called first multiplayer, spread in lab culture led to “*Spacewar! Olympics*” via *Rolling Stone*
Orbient
Orbient

- Gameplay originally developed (as Orbital) for Nintendo’s “bit Generation” series for the Game Boy in Japan — no U.S. release
- *Orbient* is available as a Wii download, part of the “Art Style” series
- Uses one element pioneered by *Spacewar!* as a centerpiece of play: gravity
Orbient

• This is an example of one kind of innovative game you could create this quarter

• Game Maker includes support (and the site offers tutorials) for many standard game elements — waiting to be explored

• What if, instead of gravity being used for navigation, a game used thrust-based navigation for combat? What about projectile-base navigation?
Discussing design
What’s needed to design something innovative?
Player centric design

• You are creating an experience for the player – all design considerations must flow from the questions:

  • What does the player do?
  • What experience does this create for the player (why would they do it)?

• You are not your own typical player
• The player is not your opponent
Producing play

• Player manipulates controller and sees/hear/feels outputs

• User interface translates inputs into gameworld actions and translates challenges into something the player can perceive

• Core mechanics are the rules by which the gameworld and game operate
Iterative design

• Rapid iteration, with something working all along the way, is a widespread design idea

• Fullerton calls the designer “an advocate for the player” — but it’s easy to lose sight of new player’s perspective

• Her approach: rapid iteration, with input from playtesters at every possible step
Playcentric design

• Start with player experience goals — need to trust and distrust (strategic), always almost out of control movement (feel), etc

• Generate ideas, formalize ideas, test ideas, evaluate results

• Eject, repeat cycle, or accept current ideas

• Brainstorming, prototyping, design, production, testing
Another view of design
Design

• “Design is the process by which a designer creates a context to be encountered by a participant, from which meaning emerges.”

• For Salen and Zimmerman, design is about meaning

• They take a semiotic view of meaning
Signs

• Semiotics is the study of signs
• Signs are made up of a signifier (e.g., the word “dog”) and the signified (the concept)
• The pairings are arbitrary (so different languages have different words)
• They are interpreted in context — “I have a dog” vs “He is a dog”
Signs shift

- Meaning systems shift over time: “He is my dog” now can mean “close friend”
- “Watergate” was a hotel, then a scandal, then “-gate” became a suffix for “scandal”
Games and signs

• Designing a game creates a meaning for something — perhaps an additional meaning — by giving it a context

• *Scrabble* gives a new meaning to English words by making them moves in a game, but old contexts and meanings are still present

• Hence controversy: “honkie” in *Scrabble*, killing in *Grand Theft Auto*, others?
Demo: *The Sims 3*
The Sims 3
The Sims 3

- What is the same as *Spacewar!* and *Orbient*?
- What’s different?
- How do we know to call them all *games*?
- Should we call them all games?
What is a game?
Are these games?

- Jazz improvisation
- Tug of war
- **Wii Music**
- Russian roulette
- Renaissance fair
- **Dungeons & Dragons**
- Stock markets
- **Crossword puzzles**
- Slot machines
- Ring around the rosy
- Driving
- **The Sims**
Fullerton’s formal elements

- Players: what other entertainment demands consumer participation?
- Objectives: specific goal(s) for players
- Procedures: actions or methods of play allowed by the rules
- Rules: object definitions, concepts, what is allowed/enabled
- Conflict: objectives can’t be achieved directly
- Outcome: uncertain and unequal
Defining “game”

A “closed, formal system that engages players in structured conflict and resolves its uncertainty in an unequal outcome”
— Tracy Fullerton
Defining “game”

• “playing a game is the voluntary effort to overcome unnecessary obstacles”
  — Bernard Suits

• “A game is a form of art in which participants, termed players, make decisions in order to manage resources through game tokens in pursuit of a goal”
  — Greg Costikyan
Defining “game”

A “system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome”
— Katie Salen and Eric Zimmerman
Artificial conflict

- They are a system that participants play
- This system “maintains a boundary from so-called ‘real life’ in both time and space”
- They “embody a contest of powers” that can be cooperative or competitive for players, single- or mult-player, etc
Defined by rules w/ quantifiable outcome

- Rules are the structure out of which play emerges for Salen & Zimmerman, subsuming Fullerton’s objectives, procedures, and rules.
- For S&Z, a quantifiable outcome is what distinguishes a game from less formal play activities.
Defining “game”

A “rule-based formal system with a variable and quantifiable outcome, where different outcomes are assigned different values, the player exerts effort in order to influence the outcome, the player feels attached to the outcome, and the consequences of the activity are optional and negotiable.”

— Jesper Juul
Rules

- Well-defined rules — unambiguous
- Affinity between games and computers
- Game rules and world rules
- Rules as software that require hardware
Variable, Quantifiable Outcome

- Not only in theory, but at this level of player skill
- Beyond discussion — a win, a score
- Making something a game — turning the creativity and grace of dance into a score for competitions
Valorization of Outcome

- Some outcomes are better
- Unwinnable games — but high score is better
- Positive outcomes are harder to reach — challenge
Player Effort

- People work — intellectually, physically
- Doesn’t work in pure chance, but people act like it does
- Reinforces attachment to outcome
Player Attached to Outcome

- Wanting to win, and not wanting to lose
- Violating this is playing wrong — spoilsport — usually
- If play among unequals (e.g., against small child) different story — but still a game for all players?
Negotiable Consequences

- There can be consequences, but not built into the game
- Poker can be for things of value, or not
- Not: stock market, traffic, russian roulette
- But their systems could be used for a game, w/o non-negotiable consequences
Game definitions

- Are often presented as “consensus” definitions based on surveys of previous game scholarship
- Can be interesting to think about, intellectually
- But: consistently marginalize things that should be central. For example...
This is not a game
The Sims is not a game

- “The #1 best selling game of all time.”
  — Electronic Arts, 2004

- But The Sims doesn’t meet formal definitions. Such games “have emergent quantifiable goals but usually no single overriding outcome.”
  — Katie Salen and Eric Zimmerman

- “Open-ended simulation games such as The Sims change the classic game model by removing the goals, or more specifically, by not describing some possible outcomes as better than others.”
  — Jesper Juul
Beyond the margins

- fantasy and vertigo games
- casino poker and blackjack
- *The Sims* and *SimCity*
- *Dungeons & Dragons* and *GURPS*
- *EverQuest* and *World of Warcraft*
- *Dogz* and *Electroplankton*
What makes the borders?

- Juul says this definition applies to a 5,000 year history of games
- Many game scholars agree
- But a new group (e.g., Pearce) argues these definitions based on a history of boys’ play as “games” and girls’ play as “not games”
- A broader frame would change definition
For this course

- We will consider the idea of computer games something *broader* than the output of the industries, not narrower
- All software that “invites and structures play” — that is *playable*
- We will be much more interested in “how is this played?” than “is this a game?”
Next week
First assignment due
Tutorial #1

- Due in section, graded there (on screen)
- Covered in this week’s sections — also in detailed tutorial online (link from syllabus)
- Required customization: a 2nd clown with different behavior (gameplay significant)
- If you can: Make the game better, adding whatever you need
Next week

- More reading from *Game Design Workshop*
- Reading from the first major book and first PhD dissertation in game studies (online)
- Second Game Maker tutorial, more advanced, worked through in sections
- Team selection assigned