

Art 380: Game Theory

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First Lecture

Schedule

- Add Sheet: if you are waitlisted, tell me
- readings, theory, philosophy
 - Ludus Florentis
 - Chapters 1,2 and 3
- history
 - Morris, Senat – to – Backgammon
- contemporary

Ludus Florentis

- A popular press piece about game industry changes
- Seems accurate
- A nice introduction

Game Industry, 2002

- game delivery via big-box retailers only
 - 30-50 games developed a year
 - national ad campaigns, like Hollywood
 - large project budgets- \$30M
 - 50-100 people on a project
 - very few employers

Game Industry, 2009

- Internet delivery for all platforms
 - room in the market for 30x more games
 - smaller games, smaller budgets
 - lower breakeven point for sales
 - freedom to experiment
 - more companies
 - more kinds of games

Other changes

- I am one of the first generation of video gamers
- As of 2007, I am older than most people
 - Most people now have grown up playing VG's
 - Most people would think of VG's as art
- There is no longer a single market for games

Game Studies

- Rules of Play is the foundation text of Game Studies— published 2004
 - different from “game theory”, which is math about decision-making
- Several Journals, a few star experts
 - Ian Bogost, Eric Zimmerman, a few others

Games are an art form

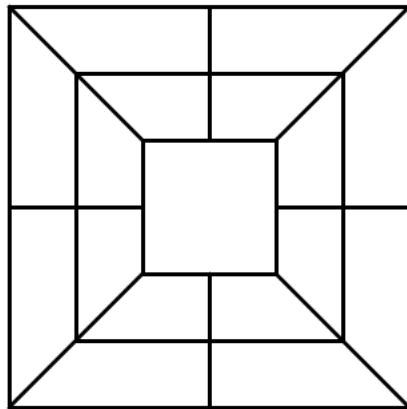
- Humans create games, and that process is creative
 - **What else could they be?**
- Games have both emotional and intellectual content
 - **They do the work of art.**
- They are consumed in a competitive intellectual property market that has a structure like the market for film, paintings, music, and literature.
- **They occupy a social position like those arts**
 - Less of an issue than it was 20 years ago

Why should you care?

- You could do this for a living
 - as something other than a production drone
 - entrepreneurship is possible => \$\$\$
- Games are going to continue to evolve and grow
- Games will continue to become more mainstream, more prestigious

Interlude: Something Ancient

- Windmill, or 9-man's Morris
- A board is carved on the Egyptian Temple of Kurna-- on the roof, for the masons
 - That makes this game at least 3500 years old
- A popular game in the middle ages



9-man's Morris: Description

Setting/Arrangement: This is a board game, for two players, no time limit on moves.

Equipment: The board, as shown, and 9 markers-- checkers do well.

Definitions:

"windmill"-- 3 in a row.

9-man's Morris: Rules

- 1) Start with a blank board
- 2) Take turns adding pieces until all are placed
- 3) Take turns moving pieces along the line segments
- 4) When a player forms a windmill, she may remove one of her opponent's piece
- 5) No jumps
- 6) The game is over when a player is down to two pieces, or can't move.

<http://userpages.umbc.edu/~mcdo/common/morris/morris.html>

Chapter 1: Establishing Disc..

- What is a "discourse"?
 - Established vocabulary
 - different from making definitions
 - A framework for critique
 - What do we talk about when we "serious game design types" talk about games?
 - What is not worth talking about?
 - This is both helpful and political

Why have a "discourse"?

- Helps train game designers
 - Builds knowledge base: journals, books
 - Infrastructure of college degrees
 - publication, curriculum-building, tests
- Generational transfer
 - standard discourse frames basics, lets us move on
- Building audience
- Buffer against criticism

The big schema

- Rules: the organization of the designed (game) system
 - "players take turns, moving one marker"
- Play: the human experience of the system
 - "games are played in an hour"
- Culture: the larger contexts engaged with and inhabited by the system
 - "disputes over rules may be settled with fisticuffs"

Why this schema?

- It gives you a list of issues to consider
- It can be applied to a wide variety of games, fruitfully
- It helps you organize your thoughts
- The goal is not exclusion, but mnemonics

For the CS people

- I will be presenting means of critique
 - that means “how to criticize a game”
- You know some software development
 - let’s relate game design to that
 - the waterfall model: specs, code, test, repeat
 - for art, what are the specs? what is a test?
- for art, the specification and the product evolve in parallel
 - you always make, look, fix

Critique allows improvement

- if you can describe how a work fails, you can convince people to fix it
- if you know how works of the past have solved their problems, you can apply their solutions
- if you drive the project, you get a raise
- art history, schema \sim design patterns
- critique \sim specification refinement

How to write about games: Rules, Play, Culture

1. Describe the social situation or genre
2. Describe how the players are arrayed in space and how they interact
3. Describe any equipment
4. Give definitions
5. List the rules
6. Describe some strategies for good play
7. Critique: strengths and weaknesses

Why write about games like this?

- Many games are lost because they were never described.
 - Games children play, especially!
 - Games played in a particular way in families.
- A standard description makes comparisons between games easier

Issues with the format

- Definitions can go on and on
 - I am your audience; you need not define things that are elements of other games
 - Use your own judgment
- Hints on how to critique
 - How is the game too hard or too easy?
 - Is there a legal, trivial way to win?
 - Why do you like to play it?

Example Analysis: Red Rover

Setting: This is a game for 10 or more children, on playgrounds, in the 70's, in Tyler, Texas

Arrangement: Form into two teams. The members of each team hold hands and form a line. The two lines should be roughly parallel, and separated by 20-40 feet, facing each other.

Equipment: None.

Definitions: The teams take turns being the "calling side"

Red Rover: Rules

- 1)** The leaders of the calling side pick a member of the opposing team. They whisper the name up and down the line, and then everyone yells "Red Rover, Red Rover, let ____ come over."
- 2)** The named child then runs at the calling side's line and tries to break through, breaking the grip of two calling players.
- 3)** If he fails, he stays with the calling side. If he gets through, he takes the two people whose grip he broke back to his team
- 4)** The team that runs out of players, loses.

Red Rover: Discussion/ Critique

Rarely played to the end: injuries.

- Probably no longer allowed, anywhere.

Classic play is for the sexually oblivious & small

Thrilling to be called, to run, to break *or* be caught.

The emotional roller-coaster of not being called

Best outcome: break through two friends, take them back, stop everyone else.

Everyone always wins?

Chapter 2: The Design Process

- Iterative Design:
 - Create
 - Critique
 - Modify
 - Critique
 - Modify....
- Again, the Waterfall.

Why iterate?

- Inspiration is overrated, easy, and there's room for lots of it in one product
- Rules generate unintended consequences, and not always the first time.
- You must test your game

Aside: Assassin

- This an augmented reality game.
- Players pretend to be "hitmen"
- Goal of game is occasional, dramatic, startling interruptions of daily life
- Arrangement of players: none!



Assassin Definitions

- The "umpire" monitors the game and assigns targets
- A player's "target" is another player, who must be "killed"
- Players "kill" each other by performing an agreed-upon, harmless, action
- "Safe spots" are locations in which players cannot be killed
 - workplace, lecture halls, places of worship

Assassin rules

- Players agree to play, then wait for target assignments
- The umpire gives assignment, and the start time, in secret
- After the start time, players hunt each other-- and go about their daily business.
- When a player is killed, he gives the name of his target to the player that killed him
- The last unkilld player is the winner.



Assassin Discussion

- Augmented reality game
 - you're walking down the street, minding your own business, when suddenly you notice John walking toward you. Smiling. Why???
- Kill actions set the tone: dramatic, silly, alarming, quick, sneaky?
 - mailing "bombs", "time bombs", Tabasco use, sock theft, email, IM, water guns, touch
 - U. Nebraska has banned this game.

Assassin Discussion

- Is the list of players known?
- Partial reveal: umpire reveals, not identity, but identifiers
- Who sees the kill?
 - does the kill count if there are witnesses?
 - does it count if the victim sees you?
 - what if a third player sees the kill? can she interfere?
- Small-party rules: secret kills, dramatic deaths

Meaningful Assassin

- This game exists in how it assigns meaning.
- It is nothing but a system of rules for assignment of meaning

Chapter 3-- Meaningful Play

- Separation of the concepts of gaming and play
- Huizinga: "All play means something"
 - how do things mean? Chapter 4!
- S&Z: "Meaningful play emerges from the interaction between players and the system of the game."
 - "system?" Chapter 5!

Meaningful Play

- (definition): the process by which a player takes action within the designed system of the game and the system responds to the action

A Descriptive Definition

- A game interprets actions
 - You move a marker => you kill a bishop
 - Chess provides the setting in which you make the kill
- This helps us be clear on what is and what is not a game
 - Some types of play are not games

An Evaluative Definition

- Meaningful play is what happens when the relationship between actions and outcomes in a game are both discernable and integrated

Why do both?

- By declaring what games ***should*** do, we help ourselves evaluate games
 - games whose meanings are not clear
 - games whose meanings are unconvincing
 - Age differentiation
 - games whose meanings are beside the point
 - Candyland!

Discernability

- When you do something, it's good to know what its effect is in the game
 - Chess is not good at this for beginners
 - Poker: I draw, I get a better hand-- or not.
- Indiscernible results do not create meaning

Integration

- Any action taken in the game should be interpretable in the game system
 - if not, then why allow it?
 - if not, then why do it?
 - integration of meaning and action: good!

We care why?

- Meaningful play is one ***possible*** goal.
- Feel free to define others! I do.
- Meaningful play is their term for a family of good game attributes
 - player involvement
 - replayability

Remember: iterative development

- By naming these things, we help ourselves talk about them-- we aid critique.
- If you cannot critique, you cannot improve.

For Next Time

- Read Chapter 4 and the Bioshock postmortem

