Foundations of Interactive Game Design (80K)

week eight, lecture two
Today

- Reminder: playtestable version next week
- Finishing discussion of procedural rhetoric
- Finishing discussion of games and fiction
Procedural rhetoric
The Landlord’s Game

“intended to demonstrate how easy it is for property owners to inflict financial ruin on tenants”
Monopoly’s game

- Juul argues that gameplay emerges from player effort to achieve winning situation
- In September 12th the presumed winning situation cannot be achieved, forcing reflection
- We don’t know about The Landlord’s Game, but Monopoly can be won, though it often stops being fun first
- See Flanagan’s Critical Play for great history!
Monopoly’s rhetoric

- Fictional world: Real-estate speculation and development, plus random events
- Rules: Land monopolies required for development, allows bankrupting rivals
- Gameplay: Buy land as fast as you can, trade aggressively, develop first, broken endgame
- Rhetoric: Strategies for capitalism? Parody?
Procedural Rhetoric

• “Procedurality refers to a way of creating, explaining, or understanding processes.”

• “Rhetoric refers to effective and persuasive expression.”

• “Procedural rhetoric, then, is a practice of using processes persuasively.... persuading through processes in general and computational processes in particular.”
Procedural

• We live in a world of systems, of procedures, only some encoded in software

• A fundamental question: *How does this work?*

• “Procedural representation explains processes *with other processes.*”

• Requires a procedural medium
Procedural figures, forms, and genres

• Operational logics (e.g., collision detection) are small and used in many ways

• Procedural forms (e.g., game engines) are larger and determine more about use

• Procedural genres (e.g., platformer) “similarities between the constitutive procedural representations that produce the on-screen effects and controllable dynamics we experience as players.”
On the other hand

- Bogost argues “procedures found the logics that structure behavior in all cases”
- Is this an unproven thesis (about cognition, culture, etc., as computational procedures)?
- Or is it a gesture to how broadly Bogost thinks we need to think of procedures?
- Should we differentiate the un/specifiable?
What does this mean?

Darfur is Dying, darfurisdying.com, 2006
What do you notice?
Darfur is Dying

Political awareness, and empathy, not policy
Darfur is Dying

- Fictional worlds: Water foraging & village, individuals (not “lives”)
- Water rules: Can run & hide, confrontation is death
- Water gameplay: Being slow, fearful works
- Water rhetoric: Just basic living harrowing
Rhetorical coercion?

- In procedural rhetoric, the world operates according to certain rules
- Even if we disagree with this model of the world, we must go along to progress
- Impossible to respond *in situ*, change rules
- Is this more coercive than what is required to follow a complex argument in a book?
Persuasive games

- *September 12th* is a political game, making a policy argument
- What about other kinds of persuasion?
Serious games

- Political games
- Advertising and promotion games
- Education and training games
- Even job interview games
- All, of course, can be viewed politically (military investment in promo and education games, and latter as former)
What does this mean?

Disaffected!, persuasivegames.com, 2006
What do you notice?
Disaffected!

In one view, an “anti-advergame” — using brand power toward social comment, also...
Service Games

• From *Diner Dash* to *Disaffected!*

• Coworkers move things randomly, customers come in already exasperated, etc

• Bogost: “the player is stripped of the power to service customers successfully.... Instead, he is forced to perform under the powerlessness of alienated labor.”
Many games are ambiguous — interpreting rhetoric requires an argument
The Sims

- Fictional world: Stylized suburban life, work elided, home decoration, moody “sims”
- Rules: No set goal, must manage moods, basic needs and relationships require work
- Gameplay: Queuing up tasks, compromise, fighting time constraints, paths to goals
- Rhetoric: Suburban life as constant struggle for the basics, w/ unclear goals, but...
- Is this the intended rhetoric?
Intended rhetoric?

• In *America’s Army*, you play as member of military — following rules of engagement
• Other team doesn’t look like US forces, but is playing same game
• Result is a presentation in which sides are equal in training, use the same rules, etc
• Is this the intended rhetoric?
Games and fiction
Stories are inherently linear.... Indeed, this is a strength; the author chose precisely those characters, those events, those decisions, and that outcome, because it made for the strongest story....

Games are inherently non-linear. They depend on decision making.... To the degree that you make a game more like a story — more linear, fewer real options — you make it less like a game.

—— Greg Costikian, 2000
We can do exciting things with games and fiction
Doing things with game fictions

- Accomplishment, emotional interpellation
- Unraveling mysteries with active engagement
- Interrogating our responsibilities
- Making play material of fiction’s language
- Play enacting fictional themes metaphorically
- Creating new social connections via fictions
- Physically enacting fictional roles
- Experiencing choice in a possibility landscape
It’s a great time to be working on games and fictions
Inform 7

Rule-based, English-like language. Powerful, free IDE. Built in or library support for rooms, objects, conversations, etc.
Sims modding tools

Official and unofficial tools for changing character and object behaviors, descriptive texts, patterns, neighborhood characteristics, animations...
Kinect hacking

Many possible body/gesture interfaces!
The tools used for creating *Dragon Age: Origins*, released to game owners for free — dialogue, story, environment, sound, etc.
These approaches provide connective tissue between arts/design and CS issues
But we can also go farther
Limits of today’s game fictions

• Our game structures are largely about physical actions and resource management

• This is a powerful palette, useful both directly and metaphorically.

• But we want something more — game systems that engage how we think about the world, relate to each other, and craft fictions.

• As projects from *Mass Effect* to “The Beast” show, we now do this “ad hoc” — with no robust game system.
If you invest in gold only, turn to page 10.
If you invest in oil only, turn to page 21.
If you invest in Vespene gas only, turn to page 32.
If you invest in Warg farming only, turn to page 43.
If you invest in gold and oil only, turn to page 54.
If you invest in gold and Vespene gas only, turn to...
If you invest in gold and Warg farming only, turn to...
If you invest in gold, oil, and Vespene gas, turn to...
So we get things like this
The next step requires arts/design innovation combined with CS innovation
One high water mark
Michael Mateas (UC Santa Cruz) and Andrew Stern (ngmoco)
Only possible by building rules, rather than graphs
Presentation of Façade by John Murray
Façade
an interactive drama

• Michael Mateas and Andrew Stern — writers, designers, and implementers

• Interactive characters, drama manager, and “bag of beats/mix-ins”

• A neo-Aristotelian one-act play, different every time

• Released summer 2005. NY Times says: “This is the future of video games.”
the characters
the drama manager chooses next “beat” by rules, not graph
<table>
<thead>
<tr>
<th>Address Subtopic:</th>
<th>Dialog</th>
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<tbody>
<tr>
<td>sculptures part2</td>
<td></td>
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<tr>
<td></td>
<td>G: (repressed, tense) &gt;...but... now I can't take the sight of them! They're revolting!</td>
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<td></td>
<td>T: (desperate, angry) Oh come on&lt;!</td>
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<td></td>
<td>T: Jesus why can't you just be happy with them? They're fine!</td>
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<td></td>
<td>T: (alt if 2nd subtopic) (desperate, angry, look away) Oh my God.</td>
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<td></td>
<td>G: (interrupted, smiling) Uh, yes, but these sculptures are an eyesore, aren't they?</td>
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<td></td>
<td>G: (interrupted, puzzled, brow knit) Uh, no, these sculptures are an eyesore, aren't they?</td>
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<td></td>
<td>G: (interrupted, a bit puzzled) Uh, well, these sculptures are an eyesore, aren't they?</td>
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<td></td>
<td>T: (impatient sigh)</td>
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<tr>
<td>sculptures part2</td>
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<td></td>
<td>G: (repressed) &gt;All day at work I design ads for stylish objects, like these picture perfect wedding pictures&lt; ...</td>
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<td>T: (desperate, annoyed) Oh yeah, yeah, it's the first thing everyone notices when they come in!</td>
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<td></td>
<td>G: Yes, we put up this wedding picture...</td>
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<td>G: &lt;same as style pl&gt;</td>
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<td>G: &lt;same as style pl&gt;</td>
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<td></td>
<td>G: &lt;same as style pl&gt;</td>
</tr>
<tr>
<td></td>
<td>G: (repressed, tense) &gt;...but... it simply does not go in this room - it never did.</td>
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**sample beats**

**coordinated actions, possible reactions**
sample mix-ins
for non-beat reactions and transitions
bringing it together
A current project at UC Santa Cruz
How do we get the dynamic social space and legibility of *The Sims* to combine with the specific characters, histories, and language of role-playing games?

*Prom Week* connects “social physics” and relationship puzzles with unfolding stories.
Prom Week: exposing social state

with Michael Mateas, Josh McCoy, Mike Treanor, Ben Samuel, Aaron Reed, et al

... backgrounds in sociology, game design, acting, fiction writing, and CS
Debbie and Edward’s angry breakup
Why would Debbie want to break up with Edward?

- She has the character trait of *jealous*
- Her sense of romance is low with him
- He did something that could be cheating
- And possibly many more reasons…
Social facts database

I saw you with Lily! How dare you!?!?
Initiator’s Volition via Influence Rules

For:
- Responder cheated on Initiator
- Responder cheated on Initiator with a friend
- Initiator is has low confidence

Against:
- Initiator is a cheater
- Initiator is not confident
- Responder is aggressive
- Initiator thinks Responder is really cool
Initiator’s Volition via Influence Rules

For:
Cheat(Responder) and Dating(Responder, Other) +20
Cheat(Responder) and Dating(Responder, Other) and Friend(Initiator, Other) +20
∼Trait(Initiator, Confidence) +20

Against:
Status(Cheat, Initiator) -20
∼Trait(Initiator, Confidence) -20
Trait(Responder, Aggressive) -10
Cool(Initiator, Responder) > 70 -15
For:

- Responder is inarticulate
- Initiator did something bad to responder in the past
- Responder is a pacifist

Against:

- Responder is domineering
- Responder has strong romantic feelings for Initiator
Responder’s reaction

For:

- Trait(Responder, inarticulate) +20
- Trait(Responder, Pacifist) +10
- SFDB(Negative, Initiator, Responder) +20

Against:

- Trait(Responder, Domineering) -10
- Romance(Responder, Initiator) > 60 -20
Choosing an outcome

Accept:
Flavorless:

Reject:
Flavorless:
romance/buddy down

Robert is a pacifist:

Karen has low confidence:

Probably a dozen more...
This only works with a lot of writing!
Writing text
Writing for systems

**Generic Txt Msg Breakup Reject**

**PRS:** %i% tried to txt msg break up with %r%
(no preconditions)

i: Oh... uh... hi, %r%. I sent you a text, did you get it yet?
r: Oh, %sweetie%, %random( that's so sweet that you get so excited about me reading your texts. I like to save them up and read them all at once, I lost my charger and my phone's been dead all week so I wrote you some letters instead, I don't like to read your texts right away... I just let my phone vibrate all day to remind me of you)%.
i: ...... That's, uh..... that's %positiveadj%. Um, I should go.

**Effects:** i gains status anxious

**PRS:** Performance Realization String, description of what happened

%i% and %r% are “initiator” and “responder”

%sweetie% fills in something like “babe, love-monkey, snookie-wookums, sugar” — different characters prefer different ones

%random(...)% chooses randomly from one of the comma-separated phrases in the parenthesis

**Effects:** The things that happen to initiator and/or responder as a result of the game
Low Romance Txt Msg Breakup
Accept
PRS: %i% txt msg brokeup with %r% even though it was kind of over already (preconditions: r has low romance for i)

i: %greeting%. Hey, so, I sent you a text, uh, have you like, gotten it or whatever?
r: Yeah. I texted you back already, did you get that?
i: Uh, no... what does it say?
r: 'Whatever.'
i: Oh. So....?
r: Yeah, I was totally over you anyway.

Effects: i/r stop dating.

Past Lamenessness Txt Msg Breakup
Accept
PRS: %i% txt msg broke up with %r% which was pretty lame (preconditions: i has previously done something lame)

i: %greeting%. Hey, so, I sent you a text, uh, have you like, gotten it or whatever?
r: Yeah. Text message breakup, %i%, real classy. I guess I shouldn't expect anything less from you. This is just like the time when %toc1%.
i: It's not like that all. And that was like a million years ago anyway.
r: Whatever. We're so over.

Effects: i/r stop dating; SFDB label added (i did something lame to r)
Writing behavior
Rather than raw code, we combine and coordinate writing, game logic, and animation in a tool built with Flash — undergrads helped build it and use it regularly.
There are many places to start and many directions to pursue
To get a good story out of a game, you have to constrain gameplay in a way that ensures that a story is told through play.... yet any game is a system of constraints. Players have free action only within those constraints; there are always limitations on behavior, and indeed, gameplay often emerges *precisely* because of those limitations.

— Greg Costikian, 2007