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TA: A bunch of puzzles.

AUDIENCE: The first one's easy, and then everything after that is such a scam.

TA: Is it like a series, or is it just one book?

AUDIENCE: I don't know. I found it.

[LAUGHTER]

AUDIENCE: [INAUDIBLE] Everyone's looking at him and they're like, you can do a practice leg in a one-person [UNINTELLIGIBLE PHRASE]. We'll just give you any puzzle that gets progressively more impossible.

TA: Actually, I want to throw out one suggestion. If anybody's having trouble thinking about what to put up for a program post, and you haven't been able to keep up with your program posts, one thing that you might want to attempt is just a quick postmortem on the previous project. What went right, what you would rather have gone right, what went wrong, and just a couple of other points.

Just sort of a reflection, just thinking about what you might want to try to change or what you want to make sure that you keep doing for the next project. That's just a good idea. So if you could do that next week. It will be done today, so after this week's program post, you might want to try to do the exercise.

PROFESSOR: So today, well first of all I want to say if you can't see the screen, you might want to position yourself so that you can, because most of everything is going to be up here for today. So I don't know if, for those of you who have taken or are taking video game studies, how much you're going into this. But some of today's talk is definitely going to be more on the video games studies theoretical side.

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And we're not actually requiring you to implement this stuff, so a lot what we are going to be talking about today is rhetoric and meaning and how that relates to simulation. If you're not conscious of this, or you don't put this in your game, that's fine. This is just something that I think is really interesting, and I hope you guys will as well.

So, first of all, I want to talk about what simulation means, and it would help if I did this correctly. There we go. OK.

So, Gonzalo Frasca says, to simulate is to model a source system or different system which maintains for someone some of the behaviors of the original system. And so to me, this definition is really important for a couple of reasons. First of all, he puts source in parentheses. For him and in his writing, he doesn't necessarily think you need one, which is a whole other argument all together. I want to point out that all of this will assume that there is a star system and that the design is consciousness.

That's part of the board game assignment, to make a game based on a real world system. But this technician has a lot of space in it. It maintains for somebody some of the behaviors. It's intentionally very loose. And this'll come into to play shortly, because a big part we are going to talk about today is the relationship with subjectivity and simulation, which I hope you guys saw a little bit of in the reading for today.

So to give a more rigorous definition, this is a model taken from an extremely dry textbook called *Theory of Modeling and Simulation*. Zeigler and all have [UNINTELLIGIBLE] of what it offers, and basically they present a simulation that's like this.

So the idea is, you have a star system that exists within the experimental frame. This frame refers to, these are the conditions under which we are interested in the star system. Right? So if you want to make a game, say about life at MIT, there's some things you are going to include, some things you're going to exclude, right? You probably don't care about the effect of the moon's gravity on the campus, for example.

And so then there's the modelling relation. So we observed the star system under certain conditions, and then we focused on the elements that are important to us, and from that we construct the model. And you notice, here they distinguish between a simulator and a model, which is not something that I think we do necessarily. Because we tend to think that simulations are complex technological software entities. So separating this indicates that

multiple things can be a simulator.

For example, in terms of games, you can have a board game. You can have a video game. And these could be based on the same model, or they could be derived from the same system, but the simulator exactly can be a couple of different things. And so this is a sort of technical way of looking at it. What I want to talk about specifically is what I refer to in my writing as a simulation gap. And this is another way of looking at the elements in a simulation.

So, major components such as star system, the simulation, the user, and I have all of these super intuitive arrows. So we'll go through them quickly.

So the arrow at A, this is kind of the abstraction process. We are looking at a star system we're considering, presumably within some sort of experimental frame that we care about. And then from that we derive behaviors and rules for what we want to implement into the simulation.

So the arrow with B represents the user. So this might be me. And this is me interacting with the game. This is me playing with it, seeing how the simulation works, watching it run. But then, importantly, there's also arrow C my recognition that it's based on something. If you can't tell that simulation has a star system, you're going to think of it very differently than if you know where that star system is.

And so D, then, is the proverbial simulation gap. And this is the space in between all of them. And this is a model of how users, in working with a simulation, can create a subjective interpretation of it. They assign values to it. They look at are there value judgments in the game. They may consider various parts of the game to have certain meaning or express certain ideas. And this arises from understanding the difference between the star system and the simulation.

I wasn't able to compress the quote down into a slide, but Ian Bogost said that the simulation gap is kind of-- a user's interpretation of a simulation converges-- all right, let's see if I can get this right. It's horribly wordy in the book. But he's basically saying your interpretation is based on what the simulation includes as much as what it excludes. We look at these design decisions as having meaning.

And so we saw this in the star article. I'm sorry, this picture is lo-res, but the game is lo-res.

I don't know if you remember this. There's this key point in the article for today when [? Star ?]

is talking about discussing *SimCity 2000* with his daughter. And if you remember, he and his daughter react differently to the game's exclusion of mixed-use field.

Actually, I probably want to check. Has anyone not played *SimCity*? Any of the versions? No experience? OK.

So *SimCity* basically is a-- he's called it a software toy. It's a simulation of a city. That's the name. And the idea is you start with an empty space, and are trying to build it up into a burgeoning metropolis, or whatever. One of the defining features of the games is it's very open. There's no real set goals.

And this is primarily done through zoning. And zoning is designating land for specific uses. So the main zones in the game, and in actual urban planning are residential, commercial, and industrial. So to mark a segment of land as residential means, this land is approved for building housing, basically apartments, houses, etc. Commercial zones are things like commerce, offices, retailers, those kind of things, whereas industry is manufacturing, mostly.

And so in the game, you can basically say this chunk of land is for this use. But in reality, it's usually not that cut and dry. And so mixed-use development is a particular kind of zoning where you're saying this land can be used for multiple things at the same time. And you see this a lot, actually, in Boston, especially down Newbury Street, Back Bay, where the ground levels of these apartment buildings are restaurants or stores. And then there's space to let apartments built right above them. And that's not possible in any *SimCity*.

And so to get back to the article then, the author is saying that he thinks the simulation is prejudiced against this kind. It's against having this kind of zoning because the game just leaves it out. Whereas his daughter says, well this is just how it works. So for the two of them, they both interpret this exclusion differently. The daughter thinks, well, OK, this is just how the game is. It's not important. And again the author says well this is actually a political decision.

So if any of you are familiar with the game, can you think of other games that are examples of politics in *SimCity*? It's written about a fair amount, actually.

AUDIENCE: There's the energy scope, where you can choose between coal or nuclear and whatnot. I think when you do get to the [UNINTELLIGIBLE PHRASE].

PROFESSOR: Yeah. They had their own agendas, certainly.

AUDIENCE: Well, it's not only that. I think it's cheaper to build a hydroelectric plant than it is to build a nuclear plant. Because the material cost of building it in *SimCity* is cheaper.

PROFESSOR: That's certainly part of it. Although it's interesting to know that in the game, I think part of that is that the hydro plants don't generate as much, so you need a lot of them.

AUDIENCE: Maybe. I haven't played in a long time.

PROFESSOR: Yes. I think they took the hydro plants out in 2000.

AUDIENCE: Oftentimes it's a lot of rules, anyways. It was often to your interest to build industrial zones near a border of your city, so that your city wouldn't be polluted as much. [UNINTELLIGIBLE PHRASE].

PROFESSOR: Yeah. And it's a result of the pollution model. The industrial zones pollute in a circle, so if you pollute on the edge of the map, half that circle is non-existent. But there's a question. Is the simulation arguing that you should send your pollution to other cities, or is it just a result of how it works? Jason?

AUDIENCE: The decision on how to follow things like how taxes affect group rates, and how different sections interact. All those types of things definitely have models from what they come from, which have certain slightly bigger political slants to them.

AUDIENCE: I was just wondering. I think the difference in how the father and the daughter viewed the system is that the father already had a preconception of what the city should be like. But the kid wouldn't necessarily know because they haven't been exposed to all of this. So to them, it's like oh, OK, this is how it works. But the father knows that there are other things in the model system as opposed to the simulation.

PROFESSOR: Yeah. And that's, again, emphasizing the fact that the user has their own subjectivity. Different people are going to assign different values to these things.

AUDIENCE: Mass transit in *SimCity* is universally considered to be a part of the [UNINTELLIGIBLE PHRASE].

AUDIENCE: In some games they'll complain about the lack of roads, but they don't do anything about it. They keep moving in.

AUDIENCE: How are they moving in?

PROFESSOR: Yeah. And actually, in the first one, you could just have trains. You could just have rail lines, and there weren't even train stations. Everything was built up against the tracks. Which in reality, I've lived next to the commuter rail lines. It's not pleasant.

AUDIENCE: In some cities, a significant portion of the population does make do with only public transport, and you can get a taxi.

PROFESSOR: Just one final point. It's a very small detail, but a lot of the games will let you declare your city a nuclear-free zone, which just basically means you can't build a nuclear power plant. But that stimulates growth. People want to move there more because there's no nuclear power plants.

So I want to go through a few more really short examples. Civilization Revolution is more like a stripped down Civilization. Is anyone familiar with this version? Now, specifically are you familiar with the DS version? That's the only one I've played that's actually based in [INAUDIBLE].

AUDIENCE: It's on iPhone, too.

PROFESSOR: Oh yeah, it's probably the same thing on the iPhone. So I've noticed, having played this game a lot, in the game, they have all these different civilizations, and all represented by a famous leader. So the Indians are led by Gandhi for however many thousands of years the game goes on. And I've noticed that Gandhi is incredibly aggressive. Almost to the point where he declares war on someone. He will stay at war the whole time. I usually end up back again, honestly. And you can try to make peace, and they'll never do it. They'll say, oh yeah, we'll be friends. And then three turns later, they're declaring war.

But on the other hand, Alexander the Great, who conquered much of Greece and Macedonia, and was very expansionist, is a total pacifist. He'll never fight you. He never wants to declare war. And not only that, but he never expands. They almost always just have their one city, and they never try to grow and spread, which is totally not what the Greeks did.

So there's this question here. Is this the result, then, of bias in the simulation? Do the designers just think, is it bad history?

AUDIENCE: I think that's backwards. Wrong pointer.

AUDIENCE: That might be it, because in, for example, *Civilization 4*, and I think 5, they have the same

characters, where if you're being India, your player can be Gandhian. He's pacifistic in that. And I'm pretty sure Alexander the Great is probably also expansionist. I'm not sure why they did that in this version.

PROFESSOR: Maybe they messed up.

AUDIENCE: Gandhi, in number 5, is still really aggressive.

AUDIENCE: Maybe they just thought it was funny.

AUDIENCE: Maybe they like irony.

PROFESSOR: I actually have my own theory on this. Part of the game is your civilization has a certain government, and governments get different benefits. Actually, [UNINTELLIGIBLE] benefit in this game. Indians start with fundamentalism, which gives you a bonus to attack. Whereas the Greeks start with a democracy, and then a democracy that people won't declare war in.

So there's this kind of weird, and my theory is that Indians always attack you because they always have an attack bonus. And the Greeks never attack you because they're a democracy. As we know, democracies aren't necessarily pacifistic. And again this is my thinking on it. This understanding the rules of the system, and then I kind of infer this AI behavior based on that.

But again, this is my position. It's easy to find people complaining about historical inaccuracies in Civilization. There's always this question. Is it part of the system? Is the system just behaving in a certain way because of certain properties? Is there another intent there? We can infer all these different meanings from what the simulation includes and what it excludes.

So I want to ask, has anyone not played *September 12*? Can I get a volunteer to play?

AUDIENCE: Go for it, Jeremy.

PROFESSOR: Do you want to play? So you can control with the mouse. Can everyone read this OK? Should I read it. It's not a game. You can't win or lose. It's a simulation. It has no ending. It's already begun. And here it goes. So, all you can do is--

[INTERPOSING VOICES]

PROFESSOR: So do you see what's happening to the people that you just hit with this?

[VIDEO GAME SOUNDS] [UNINTELLIGIBLE] --turn into errors.

PROFESSOR: You can read in the intro screen that this is meant to be a simulation of the United States' response to 9/11.

AUDIENCE: There's a puppy!

PROFESSOR: Do you think you're making things better?

[PLAYING VIDEO GAME]

[INTERPOSING VOICES]

AUDIENCE: -- just to kill the puppy?

AUDIENCE: That is one crazy dog.

AUDIENCE: What the heck?

PROFESSOR: Do you notice anything about when you [UNINTELLIGIBLE]? Anything unusual? So apparently as soon as you click, there is a delay. You can never specifically target. Even if you say, I want to get these terrorists, the delay means the odds are you're not going to. Because they're going to move away.

AUDIENCE: Did you bomb the other terrorists?

AUDIENCE: No. If you kill a terrorist, you don't bomb more terrorists.

AUDIENCE: Oh really?

AUDIENCE: Leopard terrorists.

AUDIENCE: Ooh, it's a kid.

AUDIENCE: It's a kid terrorist?

AUDIENCE: You shouldn't have brought adult terrorists.

AUDIENCE: Great strategy. If you turn all of the regular civilians into terrorists, then you can just kill everyone.

[LAUGHTER]

AUDIENCE: I think they also come in from the side there.

AUDIENCE: Well you've got to kill them faster.

AUDIENCE: Last night, someone figured out that if you camped out in the corner, eventually one would wander into the corner without any [UNINTELLIGIBLE] on it and you completely could probably kill only terrorists in the entire game.

AUDIENCE: That's boring.

AUDIENCE: How about just kill everyone, become terrorists and then chase them.

PROFESSOR: So I want to say that this game has received a lot of criticism. So this is actually Gonzalo Frasca's game, if you still remember the quote from the beginning. Notable designer Greg Costikyan has really criticized this, saying this is really harsh. How can you call this a simulation. This is so insensitive.

And you notice that this game leaves out a lot of the aspects of terrorism and how peaceful interactions work. You don't see 9/11 happening here. It really simplifies the act of what makes someone become a terrorist. You don't have all of the other pressures in the region, all of the other countries' influences. It's very stripped down.

And I think Frasca talked about part of the point here is that it's ignoring so much. Because that seems to be the way that the US government has responded. It's like this happened, and now we're just going to start bombing them. And so this is a really great example of how what has been stripped out and what's been left in really creates a strong statement. And you can interpret it in a lot of different ways. I personally think that what he's going for is this idea that the rhetoric surrounding the War on Terror and the political actions are ignoring a lot of factors, including our own role in the region of attack. But anyways, I don't mean to turn this into a subplot. Does anyone else have any other observations or anything to say about it?

AUDIENCE: I know that, as a result of this, or inspired by this, there is a great [UNINTELLIGIBLE] article. That tells us we can expect a new mother of all bombs developed generates 10,000 terrorists with every blast.

PROFESSOR: So another example, has anyone not played *Every Day the Same Dream*? Does anyone want to play?

AUDIENCE: I'll try.

PROFESSOR: OK.

AUDIENCE: [INAUDIBLE] Gandhi is not part of the system. Gandhi is just not like a player, he's not part the system.

PROFESSOR: In Civilization? Well, the AI controls him.

AUDIENCE: There was some music.

[MUSIC PLAYING]

AUDIENCE: Did you hit a car?

AUDIENCE: Aw, you can't jump?

[LAUGHTER]

AUDIENCE: [UNINTELLIGIBLE] a cubicle!

AUDIENCE: What is the biggest cubicle in this room?

AUDIENCE: Computer science. Software.

AUDIENCE: I get it. Anything more to it?

AUDIENCE: You probably won't have enough time to do everything.

AUDIENCE: Keep going forward. You can just keep going forward.

AUDIENCE: Oh, you [INAUDIBLE].

AUDIENCE: Oh my god!

AUDIENCE: [INAUDIBLE] Go left, go left.

AUDIENCE: Left, left?

AUDIENCE: [INAUDIBLE] spent a day.

AUDIENCE: You guys don't usually spend a day with a homeless guy in the graveyard?

AUDIENCE: Why wouldn't you? It's cool.

AUDIENCE: Don't get dressed.

AUDIENCE: Next time don't put your clothes on.

AUDIENCE: I'm going to get dressed like a homeless guy.

AUDIENCE: Wow!

AUDIENCE: OK, do I crash the car, or do I--

AUDIENCE: Dude, get out of the car.

AUDIENCE: Let's power through it. Just get out of the car. Just get out. Go left.

AUDIENCE: See that guy. He abandoned his car.

AUDIENCE: Oh, a cow. Sweet.

AUDIENCE: I can't? Aww.

AUDIENCE: Hold up traffic, [? Kev. ?] Aw. Leaf is gone.

AUDIENCE: I want to see what my boss is going to say. [UNINTELLIGIBLE]. What?

AUDIENCE: You can't go left.

AUDIENCE: You can't go left?

AUDIENCE: I think you can. I think there's a car there.

[LAUGHTER]

AUDIENCE: Car's are inside--

[INTERPOSING VOICES]

AUDIENCE: You are late? He didn't notice I missed day of work?

AUDIENCE: This is why you're late.

AUDIENCE: The [? graphic's ?] going down.

AUDIENCE: It's all your fault.

AUDIENCE: Oh. I'm going to get fired because the company is going to go down the drain. In three days.

AUDIENCE: Walk past your office.

AUDIENCE: Hmm?

PROFESSOR: Walk past your office. Or your cubicle, around it. The experience of the game is a little bit stronger when you don't have people talking. We don't have enough time [INAUDIBLE].

[LAUGHTER]

AUDIENCE: Push it.

AUDIENCE: Should I?

AUDIENCE: Do it.

AUDIENCE: Do it.

AUDIENCE: All I see is [INAUDIBLE].

AUDIENCE: I told you I was going forward.

AUDIENCE: What?

AUDIENCE: It's Groundhog's Day.

AUDIENCE: It is the Matrix. All right. We're going naked this time.

AUDIENCE: You're still wearing underwear. There, I watched TV. Now we've got feeling this [UNINTELLIGIBLE]? I guess not.

AUDIENCE: Did this skip, too?

AUDIENCE: Yeah, because we--

[INTERPOSING VOICES]

AUDIENCE: Everything different you do is another step.

AUDIENCE: So this is the last step then.

AUDIENCE: Naked. Naked.

AUDIENCE: Hit a car.

AUDIENCE: I can't.

AUDIENCE: You can't hit it?

AUDIENCE: I'm jamming it.

AUDIENCE: Are the cars the same everyday?

PROFESSOR: And the leap was something, too.

[LAUGHTER]

AUDIENCE: Now what?

AUDIENCE: I assume you have to go past your office again. But you're going to want to get dressed, or you're going to get fired again.

AUDIENCE: No, he won't.

AUDIENCE: No, I won't.

AUDIENCE: Oh, right.

AUDIENCE: [UNINTELLIGIBLE] left me.

AUDIENCE: You keep on reminding me, because I had a job.

AUDIENCE: Where are you going? You're fired.

AUDIENCE: I'm going to go postal at work. Don't worry about it.

AUDIENCE: He's going to kill himself.

AUDIENCE: Am I doing the right thing here?

AUDIENCE: Yeah.

AUDIENCE: We're the homeless guys.

AUDIENCE: It's Saturday!

AUDIENCE: Good call.

AUDIENCE: Yeah. He got fired, too. Ha ha. I can't crash cars now. Really not one's going out because day 6 is Saturday. So no one's going to work.

AUDIENCE: Are we not supposed to get up yet?

AUDIENCE: Oh, look. You have no cubicle anymore.

AUDIENCE: You're retired.

AUDIENCE: That would be funny.

AUDIENCE: You finished the program.

AUDIENCE: That's you.

AUDIENCE: I don't know. Everyone else looks the same.

AUDIENCE: Yeah, they all look the same.

AUDIENCE: Deep. [LAUGHTER]

AUDIENCE: It reminds me of that one game where you walk into a bar that's right across, and you can pick up a wife.

AUDIENCE: Oh, *Passage*. That's a weird game.

AUDIENCE: It reminds me of that game a lot.

PROFESSOR: So there's a couple things that I want to say about this game. First of all, if you remember [Prospect's ?] definition of a simulation, it's talking about the space in it. And I would consider this a simulation. This is based on a source system. But it's not the kind of number crunching CS thing that we associate with the word. For me, personally, I worked a pretty horrible dead-end cubicle job for about 18 months, before I came in here. For me, this game really resonates, because it really closely matches the experience. You're just doing the same thing every day, and any sort of deviation from the norm stands out.

But in terms of exclusion inclusion, one of the interesting things about this game, [UNINTELLIGIBLE] makes its point. There is nothing else. It's all a workday. There is no weekend. There's no I got home and there's something different. And that's the limited agency in the game.

By that I mean it can be easy to forget about, especially in a place like MIT, but a lot of people I know end up in these very dead-end jobs. This is a huge part of any major economy. There are people who just go to their cubicle day after day. When I was at that crap job, I knew people who had been there for 40 years.

AUDIENCE: What kind of job was it?

PROFESSOR: It was for a mutual fund subsidiary at Bank of America. Back in the financial district. I'm not sure if it would have been better for me to stay, given the whole, you know, we tanked the economy but we awarded ourselves billions of dollars. Maybe I should have stuck around.

PROFESSOR: So it was a well-paid type of job. I mean, in this climate, it might have become well-paid. But it wasn't at the time. It was actually, a lot of what I did was trade corrections. This is kind of a tangent, but it drives me bonkers.

Financial representatives and advisers make an obscene amount of money, yet most of them don't know the difference between dollars and shares in stock. And most of my job is correcting that for them. It's unbelievable. And it's no surprise to me that the thing is all fucked up.

Anyway, so any other reactions to this game or thoughts about this game?

AUDIENCE: The color [UNINTELLIGIBLE].

PROFESSOR: What do you mean color?

AUDIENCE: [UNINTELLIGIBLE PHRASE]

PROFESSOR: There's also nothing meaningful on the screen, right?

AUDIENCE: There was some kind of static noise, right? But you turned it off?

PROFESSOR: I think so. I forgot to close the *September 12* window, so there was some noise from that.

AUDIENCE: The use of color, just in general, was really interesting. In particular, the only thing at your work that is colorful is the plumbing stock sign, the exit sign which tells you where to go kill yourself. The leap is colorful.

AUDIENCE: I think the cows. And the hobos. I think it's interesting. It's kind of from the heritage of the game *Another World*. Because sort of an early [UNINTELLIGIBLE] look at what it would be like to be a human transplant onto another planet. You know [UNINTELLIGIBLE] that, in the beginning your character is extremely vulnerable and slow and clumsy. And it uses the same control schemes on the same [UNINTELLIGIBLE] channel endings. And by the same token, you're playing an ordinary person. It's not the boss. Not this person coming in. And you don't go into a postal-style power trip, either.

PROFESSOR: And so, I just wanted to say, I actually haven't seen the talk, but apparently, someone has argued that this game is just a critique of the art game movement. Right, that it's making fun of the whole pretentiousness of that. I don't really see that, but again, it's subjectivity. Like where does this actually go.

AUDIENCE: Well, what do the creators say to that?

AUDIENCE: You'll find that really creative people like that never want to talk about it.

AUDIENCE: I thought there was an artist statement on the website.

PROFESSOR: I'm sorry?

PROFESSOR: I thought there was an artist statement for this somewhere.

PROFESSOR: There could be. I honestly haven't looked it up. OK, so moving on. So anyway, good theory. If you have a theory about how things work, the best way to test it is to figure out what's a horrible example. So we've been talking about simulations and subjectivity, and saying, OK, how does this model explain the way meaning gets invented in a game and *Mario* is a really good example to throw with that. So what are some things that are abstracted into the simulation? Like what's here? What's not?

AUDIENCE: It's physics. You can jump to the moon.

AUDIENCE: You can move in mid-air. You can slam against extremely hard things and break them.

AUDIENCE: [UNINTELLIGIBLE] things and kill them. Technically [INAUDIBLE].

AUDIENCE: You can punch hard things and breaking them.

PROFESSOR: You can get bigger. You can shoot fire out of your hand.

AUDIENCE: Still, the plumbers don't seem to really do any work. They do get out of fights and clean up coins here and there, so that technically counts as points.

AUDIENCE: Why is it significant that he's a plumber? Is it so he can clean pipes?

AUDIENCE: He was the one who [UNINTELLIGIBLE].

PROFESSOR: And this is the point. He's an Italian, and he's the plumber. So if you focus on him, what can we say this game is arguing? That Italian plumbers have hard heads? He doesn't even eat. Do they not need to eat? How do you--?

AUDIENCE: He eats mushrooms.

PROFESSOR: So to me, Mario is a really interesting example because we think of it as a simulation because it has physics. When it came out, it had the most advanced jumping physics ever designed. It's interesting. So there's a couple of things here. There's so many of the fantastical elements. Like walking mushrooms-

AUDIENCE: He can jump like five times.

PROFESSOR: -and flying turtles and stuff. Yeah. Just the way that he jumps. You also notice that unlike the other games, it's hard to find anything political in Mario. You could say he's hoarding money. Maybe he's a capitalist.

AUDIENCE: There's this whole long essay about how he's a communist.

PROFESSOR: Interesting. Could you post that on the forum?

AUDIENCE: I will.

PROFESSOR: One thing again, just [UNINTELLIGIBLE] to notice is it's gender politics. So the only female is the princess. And what does she do? She sits and waits. She has no agency, and it's all about the masculine. So you can have a feminist reading.

AUDIENCE: Is Bowser masculine?

PROFESSOR: That's an interesting question. Because it's also how much do you bring in other elements? Do you think about the cartoon when you think about this? Do you think about the other games? Do you just look at Mario as an isolated event?

AUDIENCE: Peach kicks ass, man.

AUDIENCE: That's true.

AUDIENCE: [INAUDIBLE]

AUDIENCE: Well there's the Super Princess Peach, actually. But her [UNINTELLIGIBLE PHRASE].

AUDIENCE: She gets very upset. She cries.

AUDIENCE: [UNINTELLIGIBLE]

AUDIENCE: [INAUDIBLE] competitive development. I think there's something you said about the idea that snappers-- is that a Braunembaun?

AUDIENCE: It's Powell.

AUDIENCE: Powell and Braunembaun are working together. Then [UNINTELLIGIBLE] but has Nintendo ever made a proper Peach game? I don't think so.

PROFESSOR: Especially in the American *Super Mario II*, when you can control Peach. And she is popular because she floats. So I mean again, this is to say that this theory emphasizes subjectivity. There's just no lacking here that we would find meaningful or that we would actually pick apart.

With that said, I certainly think it works, especially with more political games, games that have more of a message. And again, this is all stuff to think about. It's not something we're necessarily looking for. So anything else with [UNINTELLIGIBLE] in there?

AUDIENCE: There's one probable reason why Mario's club-- actually the original pre-Super Mario Brothers where basically there is one screen, and all this bad stuff is coming out of pipes. And the idea is that you are trying to clear all the pipes of all the bad stuff.

AUDIENCE: I never got that from it.

AUDIENCE: The pipes are there.

AUDIENCE: I guess in that case what you are asking what do I bring from outside. And I recall the typing

from that being a big point of what [INAUDIBLE].

PROFESSOR: So it's like a Donkey Kong, Mario was actually originally a carpenter. And they retroactively changed him into a plumber because *Mario Brothers*, the original, was about plumbing. But they wanted to keep the character the same.

AUDIENCE: Mario's in *Donkey Kong*?

AUDIENCE: Yes.

PROFESSOR: They retroactively changed his name and his profession.

AUDIENCE: --*Donkey Kong* on Super Nintendo.

PROFESSOR: So that's the example. Anyone not played this one? You want to give it a shot?

AUDIENCE: Surprise. You have to play this game again.

PROFESSOR: Do you want to shoot, Jeremy?

AUDIENCE: I was actually just thinking of their *Cooking Mama* simulation that started this.

PROFESSOR: Oh, gosh. Princess Pamela Andersen has been captured by evil Ronald McDonald, who plans on making her a part of his Unhappy Meals, along with the chickens who are tortured for McDonald's Restaurants. Help save the princess, blah blah blah. Arrow key is move, space bar to jump. To beat enemies, jumping on their heads. You can also hit the down arrow to do the proverbial heads thing.

[LAUGHTER]

AUDIENCE: Ah. Pamela Andersen.

AUDIENCE: I thought they weren't nuggets.

[MUSIC]

[LAUGHTER]

PROFESSOR: I want to thank all of you for being here for the opening of my new vegetarian restaurant, [UNINTELLIGIBLE]. Ronald McDonald-- Finally I've found the perfect toy for my next Unhappy Meal. [INAUDIBLE] Looks like we have to take the princess once again [UNINTELLIGIBLE].

Let's go.

[LAUGHTER]

AUDIENCE: Wow.

PROFESSOR: Did you know McDonald's is one of the biggest sellers of chicken flesh? And they use an outdated method of slaughter that leads to extreme suffering for birds.

AUDIENCE: So. Wow. It's not obvious at all that it's from PETA.

PROFESSOR: You think it's from PETA?

AUDIENCE: Yeah.

AUDIENCE: Ooh, a kitten. They're cooking hamburgers.

AUDIENCE: Are you getting any carnivorous responses?

[INTERPOSING VOICES]

AUDIENCE: I think *Super Meat Boy* is a response.

AUDIENCE: You worried about [UNINTELLIGIBLE]?

AUDIENCE: What was that, spinach?

AUDIENCE: I like growth hormones as the reason for that.

AUDIENCE: There it is.

I don't know if this goes against one of PETA's earlier ads. It was a sticker that had a chick that looked like that and it said I'm not a nugget. This character's name is Nugget.

PROFESSOR: There's also a KFC version of this. But I think this one has more.

[INTERPOSING VOICES]

AUDIENCE: Not really. [UNINTELLIGIBLE]

PROFESSOR: You are the best *Super Chicken Sisters* player. OK. didn't

AUDIENCE: Even the mustache odds. Wait, why is Wario a bad guy?

AUDIENCE: What do they have against mustaches?

PROFESSOR: OK, anyways. That goes on. So this game is really different than the other games we've looked at. Does anyone have a sense of that as well?

AUDIENCE: Slightly political.

AUDIENCE: Not subtle.

AUDIENCE: For the most part it's just a re-skinning. And so we were discussing this in our other class, about Ian Bogost's perspective games. We looked at, what was it called, it was *Space Invaders*.

PROFESSOR: *Tax Invaders?*

AUDIENCE: No. It was a McCain ad. And it was about corporal spending.

PROFESSOR: Oh yeah. I know of that one.

AUDIENCE: [*? CorpWars, ?*] I think it was called. It's just a re-skinning, and so they are using the same metaphors to just get people to play it, and it's not really improving their point or it's not doing anything for their cause.

AUDIENCE: The simulation of this game seems to not really apply to their point at all. You're really just playing *Mario*, and it happens to look different. As opposed to *September 12*, evolve where the actual simulation itself had meaning with what they were trying to say.

AUDIENCE: [INAUDIBLE]. The mechanics are having to do with the political point, or the narrative.

AUDIENCE: This is a secondary critique of *Mario*.

AUDIENCE: Yeah. What was up with that?

AUDIENCE: I don't even know, what were they trying to say about *Mario*?

AUDIENCE: They're kind of enunciating the fact that it's basically a *Mario* ripoff. Nintendo [UNINTELLIGIBLE]. Yes, we know it's a *Mario* ripoff, so we're going to tell you that we're aware of it.

PROFESSOR: PETA also has an established problem with Nintendo, with their *Cooking Mama* re-skin.

AUDIENCE: [UNINTELLIGIBLE] technically --although Nintendo has licenses.

PROFESSOR: Well I guess Nintendo received the brunt of PETA's wrath, in that case anyways.

AUDIENCE: What is *Cooking Mama*?

AUDIENCE: It's a DS game that's about cooking. [UNINTELLIGIBLE] because they're working out vegetarian options.

AUDIENCE: Wow.

AUDIENCE: So they made another flash game similar to this one where *Cooking Mama* kills animals and the features are really bloody and slitting their throats and stuff.

[LAUGHTER]

AUDIENCE: Remember we played the video game yesterday in [UNINTELLIGIBLE] Video Game Studies?

PROFESSOR: Was that a McDonald's video game?

AUDIENCE: Yeah. It was at videogame.com. And that one is a simulation of running McDonald's. And it presents itself as serious, and at first, most of us in the class, as I was, thought it was produced at McDonald's. And as it goes on, you can manage the beef farms and the soy farms, and then your slaughterhouse, and then your stores, and then your corporate area. And at first it seems like, hey we're going to show you how the business at McDonald's works.

And then you get this farm portion, and there's the option to use [UNINTELLIGIBLE] crops. And you think, oh I can do that. It's a trade off. Then you have to bribe the mayor so you can destroy his crops to put yours. And you're like, wait. Then you can choose to feed your cows sludge to make them fatter. There's all these little things that you can add on. You can bribe a climate expert to say that you're environmentally friendly.

AUDIENCE: Are these bribes based on any fact?

AUDIENCE: I don't know. It was a good game, too. We played it, and it was really challenging.

AUDIENCE: [UNINTELLIGIBLE PHRASE]

AUDIENCE: You know it's the same company.

AUDIENCE: [UNINTELLIGIBLE]

AUDIENCE: CNS 590, and apparently it's almost impossible. They do their own act as they corrupt everything.

AUDIENCE: And that's advanced rhetoric, right? To be successful, you have to--

AUDIENCE: The guy next to me was playing all-natural organic without corrupting anyone. And he was-- he went to [UNINTELLIGIBLE].

AUDIENCE: Yeah. But at least learn the actions you're taking in the game. You're supposed to hear when you're walking past someone who just talked to you about how McDonald's sucks.

AUDIENCE: That wasn't very effective. This was just like, oh, I'm hungry now.

AUDIENCE: If it's the difference between a simulation and a game, this is really more of a game than a real simulation. In a real simulation, the mechanics have to relate to whatever it is.

PROFESSOR: But again, who's to say? This isn't any more or less a simulation than *Mario* was.

AUDIENCE: I don't think *Mario* is a simulation either.

PROFESSOR: So that's exactly what it is. This game has a point to make, but it's doing so in a very narrative fictional way. It's not leveraging the simulation. And generally speaking, these games are just not as effective. And that's one of the cool things about simulations. You get to see how it works and experience things first hand.

Whereas, is this any more or less effective than a pamphlet or a brochure? Maybe in terms of exposure. A lot of people can play this game, but it's not doing anything that any other type of media could do. And that's what I got.

So we're going to do some of the brainstorm exercise again and talk about projects for the next assignment. Does anyone else have anything they want to add before we move on.

AUDIENCE: There's a lot [UNINTELLIGIBLE] the issue of [UNINTELLIGIBLE] simulation. I mean we'll be playing games that are ostensibly simulations, or at least satires.

AUDIENCE: Which are a different crunch.

AUDIENCE: [UNINTELLIGIBLE PHRASE] And I want to point out -- back to one of the earlier points-- [INAUDIBLE] system. It doesn't necessarily-- it does make a game. [UNINTELLIGIBLE] system doesn't have to be a real world focus. It could be any system. [UNINTELLIGIBLE] They're all very much based on fictional systems. But Michael's game is particularly good, but they're trying to figure out what the system is in those storybooks. And make them, relevant for those players. [UNINTELLIGIBLE PHRASE].

AUDIENCE: So we can do fictional systems?

PROFESSOR: Not for this particular one. Not for the assignment. [INAUDIBLE].

AUDIENCE: Does anyone know why they came out with *Lego Star Wars*? [UNINTELLIGIBLE] of the Lego games?

AUDIENCE: Because they're awesome.

AUDIENCE: It's a funny idea [UNINTELLIGIBLE].

PROFESSOR: But I think Lego was not doing very well until they got the *Star Wars* license to make actual Lego sets. And that was a big revenue [UNINTELLIGIBLE]. That was last year. If you have a toy store in Europe, it will be half Lego. I've had that experience of, wow, I remember when I wanted this when I was six. And you can't get it. Just everything that's sold in the US, legal basis kind of--

[INTERPOSING VOICES]

AUDIENCE: It just seems so funny that they have *Lego Star Wars* video game.

AUDIENCE: Well, there's also Lego *Harry Potter*.

AUDIENCE: Well, they make Lego everything. They have Lego [UNINTELLIGIBLE].

AUDIENCE: *Indiana Jones*.

[INTERPOSING VOICES]

AUDIENCE: --*Lego Star Wars*. It's probably more on topic for stuff like video game studies, but it probably works well with a number of classes offered. that the video game-- [UNINTELLIGIBLE] It will talk about different licensing. We'll talk about different franchises and how we [INAUDIBLE]. So if you are interested there was another similar point that I wanted to make. Oh, all right,

simulations. There's actually a games simulations class that's being offered in DUSP here. [UNINTELLIGIBLE] largely using simulations for educational games. You saw [INAUDIBLE]. It's a really, really good class.

And he approaches it in a very similar way. For instance, let's look at a model. Let's look at those assumptions and what you're choosing to simulate, what you're choosing to leave out. And he'll get to things like game play, [INAUDIBLE]. He's pretty well equipped after taking this class to start thinking about those issues. But he looks a lot [UNINTELLIGIBLE]. How does someone constructing [UNINTELLIGIBLE] the basic first step of how to release simulation. [INAUDIBLE]

PROFESSOR: That's for CNS 590 Education Exploration for Games and Simulations.

AUDIENCE: It's multiple courses.

PROFESSOR: Yeah. It's definitely crossed with 11. I think it's crossed with at least one other thing.

AUDIENCE: CNS [UNINTELLIGIBLE].

TA: Actually we can [UNINTELLIGIBLE]. So this time I'm going to do it is a brainstorming similarly as last time. But instead of brainstorming the whole game ideas, which is what we did last time, I want people to pull out systems. Pull out the real world systems that you might want to write a game about. Because what if [UNINTELLIGIBLE] near the end up reciting two models, and one of the game play, it's probably going to be [UNINTELLIGIBLE] determined by who your teammates are. And who already has a team?

AUDIENCE: We do.

AUDIENCE: We had a different idea.

AUDIENCE: I think I have an idea for us to do.

AUDIENCE: It's possible. So I will recommend being friends with it and sharing it. You don't have to. But if you are going to hold back, try to contribute a couple of ideas [INAUDIBLE]. So, as you know [INAUDIBLE]. Anyone or any ideas? [UNINTELLIGIBLE] I'll start with Jeremy and then I'll work my way back again.

AUDIENCE: [UNINTELLIGIBLE] trying to build a pyramid.

AUDIENCE: OK, pyramid building.

AUDIENCE: I told you the green one was good.

AUDIENCE: That was a lot more than [INAUDIBLE] at MIT.

AUDIENCE: Renaissance Italian political machinations.

AUDIENCE: OK. Renaissance Italian politics. OK.

AUDIENCE: Your four years here at MIT. MIT undergrad.

AUDIENCE: A real-time tower of defense, but let's say you're in a tower. Think of who saw *Inglorious Basterds*. I said think *Inglorious Basterds*. Remember the guy in the tower? Something like that. Sparking a siege or something.

AUDIENCE: So American sniper or German plot base.

AUDIENCE: Like tower of defense. Very similar, except you're not military.

AUDIENCE: Running a marathon?

AUDIENCE: National politics.

AUDIENCE: From Las Vegas.

AUDIENCE: What?

AUDIENCE: Surviving the Department of Motor Vehicles.

AUDIENCE: Middle School popularity contest.

[INTERPOSING VOICES]

AUDIENCE: I'm not supposed to make any jokes [UNINTELLIGIBLE].

AUDIENCE: Being a cook in a really busy restaurant.

AUDIENCE: Making nuclear fusion work. Finding lab scale scientific endeavors. I'm thinking NASA. NASA planning.

TA: NASA scale types.

AUDIENCE: The immigration process to America.

AUDIENCE: High school student body election or student government.

AUDIENCE: Evolution. And also I give-- I know I love this idea-- ants trying to find their way home.

AUDIENCE: Developing a music career.

AUDIENCE: A career in academia. Also immune system.

TA: Academia and immune system. I like that.

AUDIENCE: Give myself a fever, ah!

AUDIENCE: Auction house.

AUDIENCE: Lost in Japan.

[INTERPOSING VOICES]

AUDIENCE: [UNINTELLIGIBLE]

TA: Patrick.

AUDIENCE: Making photos in a darkroom.

AUDIENCE: Culturing bacteria.

AUDIENCE: Transfat.

AUDIENCE: Similar to the immigration to the US, crossing the Caribbean Sea in a boat or a raft.

AUDIENCE: Or one, then the other.

TA: How many r's in Caribbean?

AUDIENCE: Two.

AUDIENCE: I'm pretty sure it's one.

AUDIENCE: I'm pretty sure it's two r's and two- let's see. Oh yeah. It's one r and two b's. Damn.

AUDIENCE: Learning [INAUDIBLE].

AUDIENCE: Westward expansion of America.

AUDIENCE: Westward expansion.

AUDIENCE: Travelers to Oregon. [LAUGHTER]

AUDIENCE: *The Oregon Trail.*

AUDIENCE: Tech support.

AUDIENCE: Ooh. You have committed suicide.

AUDIENCE: Advertising executives at Apple.

PROFESSOR: I read was this article about how Steve Jobs was [UNINTELLIGIBLE].

AUDIENCE: I'd think about a person's journey of understanding self.

TA: Self discovery.

AUDIENCE: Also a presidential election.

TA: A presidential election.

AUDIENCE: Shepherding.

[INTERPOSING VOICES]

AUDIENCE: Mechanics are kind of interesting when you look at them.

AUDIENCE: Viking colony in the new world before they left.

AUDIENCE: I don't know if you guys still have it, but I made a game [UNINTELLIGIBLE]. It's probably indoors somewhere. You stole my idea.

TA: If two people have the same idea, maybe you could work on a team together.

AUDIENCE: Making a movie. Like pre-production.

AUDIENCE: Being a castaway.

AUDIENCE: Running a religious industry.

[INTERPOSING VOICES]

AUDIENCE: Raising a kid?

AUDIENCE: Right in the middle of that right now.

AUDIENCE: Piracy without getting caught.

AUDIENCE: As in high seas piracy?

AUDIENCE: No. software piracy.

AUDIENCE: Designing a board game.

AUDIENCE: Brainstorming.

AUDIENCE: Building a computer.

AUDIENCE: Waking up.

TA: Waking up.

AUDIENCE: Acknowledging a [INAUDIBLE].

AUDIENCE: A couple. Imperialism. Well it's another religious one. Organizing a mass suicide.

[LAUGHTER]

AUDIENCE: Filing a divorce

TA: I called finding a divorce.

AUDIENCE: I said finding a horse.

[INTERPOSING VOICES]

AUDIENCE: Running away from the police.

AUDIENCE: Crime scene investigation.

AUDIENCE: Firefighting.

AUDIENCE: Falling asleep.

AUDIENCE: Waking up. Falling asleep.

AUDIENCE: Organizing a heist.

AUDIENCE: Running the Catholic Church.

AUDIENCE: [UNINTELLIGIBLE PHRASE]

AUDIENCE: Money laundering. Tax evasion.

AUDIENCE: Mafia.

TA: Is that the same idea?

AUDIENCE: They could be two separate ideas.

TA: They could be separate ideas. Tax evasion happens small scale and large scale.

AUDIENCE: Picking up kids flying into a summer camp at the airport and not trying to lose them.

TA: What? Not losing-

AUDIENCE: Not losing arriving children.

TA: I could see that would be at an airport meeting kids game.

AUDIENCE: A gang or mafia organization.

TA: Mafia organization.

AUDIENCE: The spread of fire through different materials.

TA: Fire spread.

TA: Would probably work very well with the firefighting game.

AUDIENCE: Carrying out a hit with a small team of assassins. Like you go into a hotel in Dubai or something.

TA: This is the point of the game.

AUDIENCE: Yeah. Or dot-com boom and bust.

TA: Dot-com boom and bust.

AUDIENCE: Rescuing Chilean miners.

AUDIENCE: Running a city.

AUDIENCE: We talked about [UNINTELLIGIBLE].

AUDIENCE: Putting on and taking off clothes. Or putting on clothes.

AUDIENCE: I'm pretty sure there are games where you are taking off your clothes.

[INTERPOSING VOICES]

AUDIENCE: Hot sauce eating contest.

AUDIENCE: Which is already a game.

AUDIENCE: Well, sure.

AUDIENCE: Start a company, or a Silicon Valley bubble.

TA: So Silicon, dot-com boom and bust as well.

AUDIENCE: Surviving a family reunion.

AUDIENCE: Containing an oil spill.

AUDIENCE: Making a [UNINTELLIGIBLE] lab.

[INTERPOSING VOICES]

AUDIENCE: Cooking's a game. There's flavors and such.

AUDIENCE: Getting drunk, or trying not to.

AUDIENCE: Make a [UNINTELLIGIBLE].

AUDIENCE: Nuclear proliferation.

AUDIENCE: I mean, bomb making plus international diplomacy.

AUDIENCE: Living alone on an island.

TA: That's kind of like castaway as well. Yeah, so island.

AUDIENCE: [INAUDIBLE]

AUDIENCE: So bomb disarming. Also Congress and Supreme Court as two separate entities.

TA: Sorry, you have to repeat that. What now?

AUDIENCE: Bomb disarming. Congress and the Supreme Court as very separate ideas.

TA: Oh. Congress. We've had very many presidents in the Congress Supreme Court area. Let's see. I lost track. Calvin.

AUDIENCE: Surgery.

AUDIENCE: Operation.

AUDIENCE: Yeah, I love that game.

AUDIENCE: Running and orphanage.

AUDIENCE: If I might, running a charity.

AUDIENCE: Creating and spreading [? means. ?]

AUDIENCE: It'd be great if you could actually spread [INAUDIBLE].

AUDIENCE: Being a tourist in Amsterdam.

TA: Very specific. OK.

[LAUGHTER]

AUDIENCE: Basic programs at MIT.

AUDIENCE: That's worse.

AUDIENCE: Playing games.

AUDIENCE: Wait, how do you imagine that you're playing a game. And you play too many games. And you [UNINTELLIGIBLE].

[INTERPOSING VOICES]

AUDIENCE: [INAUDIBLE] Being an IPS.

AUDIENCE: Twitter.

AUDIENCE: Being a pro gamer.

TA: The pro gamer game.

AUDIENCE: Managing traffic intersections.

TA: Traffic intersections.

AUDIENCE: Being a programmer. A software designer.

TA: We have programmer and pro gamer. Two different things.

AUDIENCE: Fishing. And losing weight.

AUDIENCE: The historical whaling industry.

AUDIENCE: It's not a current system, right?

[INTERPOSING VOICES]

AUDIENCE: Chastity and candle making.

AUDIENCE: Unicorns.

AUDIENCE: Wait, unicorns?

AUDIENCE: Maybe we should combine that into medieval guild operations.

AUDIENCE: Running railroads.

TA: Railroads.

AUDIENCE: Lumberjacking.

AUDIENCE: Spelunking.

AUDIENCE: Stock market speculation.

TA: Stock market? Or speculation in particular.

AUDIENCE: Salem witch trials. Or witch hunts in general.

TA: Witch hunts.

AUDIENCE: Unions.

TA: I'm starting to think that [UNINTELLIGIBLE].

AUDIENCE: Building a house.

AUDIENCE: FedEx.

TA: FedEx.

AUDIENCE: Spreading a mass hysteria. Like McCarthy style.

TA: Also known as [INAUDIBLE].

AUDIENCE: Cold War spying and the internet.

TA: Cold War espionage. And the internet.

AUDIENCE: Communism.

AUDIENCE: Computer virus.

AUDIENCE: Hurricanes and oceans.

AUDIENCE: Could you do something like astrology, which is not a real-world system, but is--

[INTERPOSING VOICES]

TA: Yes. You can do astrology.

AUDIENCE: [INAUDIBLE] virus.

AUDIENCE: Yeah. But that would be more like a real virus.

TA: I would suggest limiting yourselves to just the real world. I mean, coming up with things like zombie outbreaks, sure there is a system you can model. But if you're just trying to push on

the edges of the constraints, then you're just trying to give yourself an easier time. And more often I see the results actually turn out to be less interesting because people are just going for the ideas. They just [UNINTELLIGIBLE] them really, really quickly. People aren't actually trying to work it.

But that being said, even with a lot of the ideas up here, a lot of them have connections. Even there will be the obvious ones. Like oil spill containing and oil spill starting could practically be the same thing. Everything with the presidential election. Spreading mass hysteria [UNINTELLIGIBLE].

And these ideas are now up on the board. You have until the end of Friday, I guess. We don't really need to know until the beginning of next week. So actually by the end of Friday, you should know who is on your team and what project you're working on. Over the weekend, you know who's on your team. You know to email people on your team. And what idea you're starting with.

Again, the idea can diverge a little bit, but I like the previous project. We do want you to keep with whatever you started with and use it as core system. You may choose presidential election. It may be something about winning votes. And then you decide no, you want to make a game of gerrymandering. That's fine. Because it's still keeping in with the same core of the system.

But say oh, we want to do something about winning votes and then instead it became about religion or something like that. I could see how you got there, but that's not really keeping with the spirit at this particular time. So stick with the original core system that you're working with.

And try to find the fun in it. Don't try to like, oh, this is a really dull simulator mechanic, but if we add a bunch of [UNINTELLIGIBLE] then it becomes funny. No. Try to find it fun in the original system. And if you can't try to pick apart the system and find the one component that is fun. So all of bomb making might not be so much fun as as [UNINTELLIGIBLE] the blood-- Yeah, that might be the fun part. The one part, I'll be, oops my hand slipped, and therefore I am now dead. That part might be actually kind of fun, as opposed to OK, now I need to figure out how to get [UNINTELLIGIBLE]. Cool. All these ideas are going to stay up on the board for a while.