PROFESSOR: So let's do a bit of a discussion, we've got about 20 minutes. So these are the games that we just played. And I just want to have a discussion, again. What are the mechanics in these games? We've been talking-- I've gone to a lot of teams to ask about core mechanics, because that's really the thing that you're going to have to worry about for assignment one.

Well let's talk a little bit about mechanics in general. Again, the definition that I want to work with-- at least for assignment one-- is a set of rules, could be more than one-- usually more than one-- that is going to allow a player to change the game state.

Now I never defined game state. But anyone want to throw out how you would interpret game state?

AUDIENCE: Like all the public and private information on the board right now.

PROFESSOR: OK. All right, that's-- all the information, whether you know it or not, that could be the [INAUDIBLE]

AUDIENCE: Yeah, for me, it's affecting other players.

PROFESSOR: Affecting other players?

AUDIENCE: Yeah [INAUDIBLE]

PROFESSOR: It's-- all the informa-- what, what affecting other players?

AUDIENCE: We played [? unavailable ?] with them, or--

PROFESSOR: The decisions are available to--

AUDIENCE: Sure.

PROFESSOR: --to them could be one way to interpret it. OK, all right. I thought I saw another hand.

AUDIENCE: I was thinking, I don't know how to explain it, but, yes, you're having a board or whatever type of meeting that you have issue to change.

PROFESSOR: Right

AUDIENCE: We go from, I don't know, something should move or if something doesn't move, then there should be a reason why it didn't move.

PROFESSOR: OK. So, one way that I interpret that is that there has to be a variable. It has to be something that isn't necessarily the same every single turn, right? It's like the board of the Monopoly-- the layout of a Monopoly board-- It's not what I would describe as being something, part of the game state, because that never changes from turn to turn.

AUDIENCE: So if you were to take someone elsewhere, say, across the country. Some groups of people have the same [? baggage ?] as the group that's playing their game. And to send-- has each one of you [? sent ?] one telegraph-- telegram-- to one of them? If the minimum amount you need, the minimum stuff you need to tell them in order for them to be able to continue your game from where you were.

PROFESSOR: OK, so you've got to evaluation criteria of whether you just fully described the game play. But I'll, yeah, all these are useful ways of thinking about what is the game state. What's the stuff that can change? Which is-- and what's all the information? Whether you know it, whether an individual player knows it or not. To be able to reproduce a state-- to be able to reproduce a game in progress and then be able to carry on, right.

Sometimes things are unreproducible, like sports, for instance. If you try to halt the game halfway and then reproduce exactly the same weather conditions as the game it was--

[INTERPOSING VOICES]

PROFESSOR: It was altered. It is kind of difficult. But you know that if you really, really wanted to be able to continue that you have to make a decision on whether the weather is part of the game state. In sports, often it's the reason why the game was interrupted in the first place.

AUDIENCE: Do you think [INAUDIBLE] sports fatigue is part of the game today?

PROFESSOR: Yeah, I think so, which makes it kind of difficult, right? It's, like, we're going to start the game at halftime, and then we'll pick this game up tomorrow, playing the second half. And it's-- that's a very different game from the typical one.

[INTERPOSING VOICES]

AUDIENCE: Instead, make it so that they have to start [? A ?] different game, right, for the first half.

PROFESSOR: First, exhaust yourself, or we'll throw those results out. So-- so [INAUDIBLE]

[INTERPOSING VOICES]

AUDIENCE: do something else with them.

[INTERPOSING VOICES]

PROFESSOR: Well, I mean, that's a problem. If you actually had-- and this does happen in, not marathons, but multi-day races. You have the situation where people get a good night's sleep before they resume the second leg of the race. And at which point they decided that fatigue is not the thing that they're going for. Why, they've tried to quantify your advantage or your disadvantage based on your start time the next day or something like that, right? I try to think up a competition that that would advance to that. I think that-- the Tour de France is not one day, right? It's multiple days. Yeah. So you have to stop. You have to sleep. You have to wake up, and then, depending on when you've reached the checkpoint, determines when you get to leave the check-- the-- yeah.

AUDIENCE: [INAUDIBLE] I know, in cricket, they have multiple day competitions. And near the end of the one day, it could be dark [? for the gingham and like ?] [? clothlike ?] The game doesn't get finished for the day, and they'll put in-- they'll specifically put in $15 [INAUDIBLE], basically trying to delay until the next game starts there.

PROFESSOR: Oh.

AUDIENCE: They put in--

PROFESSOR: So that their rules will sort of counteract these exploitative strategies.

AUDIENCE: They'll [INAUDIBLE] put in a pitcher [? who's younger. ?] They'll put in a batter who's job is to not really swing it very-- isn't really to swing it very much, and all they're to do is trying to delay until the game ends for the day, basically.

PROFESSOR: Yeah. I mean, it's weird, because you have a bunch of these strategies, and that there are probably rules that will come up to prevent some of the worst strategies from being put into play. You've got the same thing in baseball. Sometimes you put in these-- that there are late ending pitchers, right? That you will, and they're your starters and-- that try to achieve completely different things.

So we've talked a little bit about game state, and we've played all of these games. All of you played a good portion of them and I have gone to team to team to try to talk a little bit about the mechanics. So let's just pick one that not that many people played so we can talk a little bit about it. A lot of people, I think [? Marcus ?] will [? state ?] once today, so by this group, right? So game state is characterized by--

AUDIENCE: [INAUDIBLE] location of pieces.

PROFESSOR: Yeah, and the location of pieces onto the great board. But there is-- I think every player has the same set of pieces, just in a different color. And which pieces have already been played. So it's not just the location, but also which pieces have been played in which teams, which people are still available to them.

Whose turn it is, because it's part of the game state. Because you take turns facing people, right? So-- so what's the core mechanic of [INAUDIBLE]

AUDIENCE: [INAUDIBLE]

PROFESSOR: You select a piece from all of the pieces you haven't placed yet. And then you figure out where it goes. And the rule that you have to fit to meet, before you put it down?

AUDIENCE: [INAUDIBLE] the corner of the piece [INAUDIBLE]

PROFESSOR: A corner of one of your own pieces. Right.

AUDIENCE: But not in any [INAUDIBLE]

PROFESSOR: Right. So you can't two pieces butting up like that, but you can have two corners touching each other. And you have to have corner pieces.

AUDIENCE: And it is better where [INAUDIBLE] the board, where the [INAUDIBLE] except you can't put it [INAUDIBLE]

PROFESSOR: You tried to find a little space to place, with a open space, that your piece will actually fit. Out of all of the pieces that you've got, which is part of the game state. And, of course, that changes game state by not only changing what pieces are on the board, as we described earlier, but also takes away a piece that you've already got. That's the core mechanic.

In, I think, the next class, let me just check-- take a look at this again. Oh, wow, it's going to be

February 19. No, it's going to be, holy cow, it's going to be a month before we get to chapter 2 of this book. Seriously? OK.

For your sanity, you might want to read chapter 2 of *Challenges for Game Designers,* because it's five pages. It's not much. It's pages with illustrations on them. They go fast.

Chapter 2 goes into a lot of more specific definitions. But they also talk about something called core dynamic, which is something I actually don't necessarily want you to worry too much about right now. They are right in identifying that, often, the core dynamics are actually more important than the core mechanics of the game. So the core dynamic probably has a bigger influence on what a player is going to experience.

Whether it's some sort of crazy frenetic game where you're trying to screw over your opponent, or when it is animal versus-- animal upon animal, where it almost feels like a cooperative game at times. Even though there's a winner, you're all kind of playing together to not take the whole thing over. Those things often come out of the dynamics.

We'll go into the theory. Some of you have already encountered this in other classes, the mechanics, dynamics, aesthetics theory. We'll get into that later into this semester. And that's just a very convoluted way of explaining why sometimes game design is hard.

But the mechanic is the thing that you get to control as a designer. You get to write the rules. You get to decide what collection of rules that the players have to go through in order to be able to change the state of the game. And I want you to go through deep, deep permutations of what you can possibly do with one core mechanic.

So in [? Escape ?] it's very clearly rated [? easier. ?] He's not a game designer. In fact, there's a little bio of him in Chapter 1, I think. Yeah. In the chapter there's a little photo of him, the guy who designed that game. And it's very clearly him trying to do everything that he can do with dice in a short design period of time.

And when you see his other games later this semester, you will see that he's trying to do everything he can to with options. He's trying to do everything that you can do with [? design, ?] and he's thinking about these game mechanics. And that's the thought process [? I need ?] to go through.

All right. So leaves us with just a little bit more time. I'm going to end this with the stupidest

question in the world, which is, what is a game. What is a game? We've got 3 hours into a class, and we haven't actually talked about this yet. Why? Why? OK, maybe [INAUDIBLE] why is it a stupid question?

AUDIENCE: It's not a stupid question.

PROFESSOR: Is it? Why did I describe it as a stupid question, maybe. That might be--

AUDIENCE: It feels kind of intuitive. Oh, I can look at something and say this is a game, this is not a game. But it's actually-- describe-- maybe there's some [? educations ?] where it gets really difficult and then to actually define what is and what isn't gets really murky.

PROFESSOR: That is definitely-- that is definitely true. But you have a counterpoint?

AUDIENCE: [? Game ?] but usually something with a, I guess, set toll in mind given, [? I don't know, ?] to build objective and rule.

PROFESSOR: Objectives, rules, objectives or sub-objectives, goals, as you describe them. Some sort of constraints, some--

AUDIENCE: Like a mechanical restraint. Like an objective and mechanical [INAUDIBLE] I consider it a stupid question because it is. Everybody knows that a game [INAUDIBLE] that's a ridiculous thing to say. Of course I want a game. But when we actually look at it? Then it does. It gets hard. It gets convoluted as you're playing. That's why it's such a dumb question.

PROFESSOR: Again, somebody [? educate-- ?] so many [? educations, ?] but there are these things that a lot of games do share. These goals that you're working towards, these constraints that you are trying to work in, these decisions they're trying to make.

AUDIENCE: They're definitely [INAUDIBLE] game, which have had objectives in them. [INAUDIBLE] objective, and then charge [INAUDIBLE] 10 [INAUDIBLE] The way that the [INAUDIBLE] is different, I don't think a game necessarily has to have [INAUDIBLE]

PROFESSOR: It's crazy to think of a game that people might recognize as a game that doesn't meet all of these criteria.

AUDIENCE: So I think of it as something with a goal, an entertaining goal. So basically a goal that would be entertaining to obtain. But I also think that's very dependent on what you think of as a game. And someone mentioned that, oh, it's obvious. If you look at a game [? you feel like ?] this is a

game. It's not.

But I think that it's not as obvious. I think with animal upon animal, everyone of us can look at that and say it's the game, but there are a lot of things that kind of fall on the edge. Some people will define this game where other people won't.

[? Beat the ?] [? game. ?] [LAUGHTER] Or my dad's really angry with me--

[INTERPOSING VOICES]

AUDIENCE: --cards.

AUDIENCE: I personally like the vision of unnecessary obstacles, because it-- There's a play space that you don't have to be in it, but you should clean it and you should be giving yourself these obstacles to get over them or whatever.

PROFESSOR: I think that's Bernard Suits who posited that and he likes to use golf as an example. Right, it's because clearly golf is an inefficient way of delivering a ball into a cup.

AUDIENCE: [LAUGHTER]

PROFESSOR: Yes, let's just use this very long stick that's weighted weirdly and then put the ball really far away. And give you a rule that you can't just pick it up and drop it in there. So unnecessary obstacles, it's kind of a nice way to describe a criteria that a game could meet.

AUDIENCE: So it's interesting because the-- often times a lot of people, the creative people like artists and other such people, will say constraints actually let you be more creative. So that's, I think what's interesting about games is, specifically with strategies and stuff, the fact that you can't just pick up the golf ball and walk to the hole and put it in. It means you actually have to learn.

Well, this golf club, it goes for long distances and this and that and that. So all these constraints yield different strategies, which is a really interesting sight.

PROFESSOR: Right and even in the example of the cricket thing, right. It's-- you have this weird collection, a set of rules. We need to this emergent strategy, which is like-- And now we put in this particular kind of batter or pitcher that is going to help us maximize our-- what's going to extend this game by day.

So [INAUDIBLE] why is-- it's not entirely-- it's not an entirely futile experiment to try to define

games. In fact, I believe we do have a definition of games coming up in one of the rules of play readings, and it is one that is functional. And it has goals. It has the constraints that you're working in.

I believe they also have it describing an activity that's actually carved out of-- of regular life. And the consequences that happen inside it don't include that you're outside it. But as many people have already pointed out in class, if I gave you a little bit of time you will be able to come up with a game that people will recognize as a game, and for that [? sort ?] [? of ?] definition.

The reason why I personally-- this is not-- this is not going to be useful to you outside of this class. So I'm going to tell you personally the reason why I don't like that question, what is a game, is because it invites you to carve things out of the game space. To say that thing is not a game because it doesn't meet this definition, and I find that activity to be pointless. To-- just telling people who've made something and have decided to call it a game that it is not-- that thing that you created is not a game.

I actually feel that is very antisocial, very noninclusive way of thinking about what could actually be useful in thinking about it. But for your own benefit of working in a team, it is reasonable to set goals that you want to hit with you game. Many of the descriptions that have already come up in the past 10 minutes are actually things I would use to describe good games, but not necessarily games as a whole. Entertaining, for instance, it's like how many of you can think of a game that's not entertaining, but it's a game?

AUDIENCE: Monopoly? [LAUGHTER]

PROFESSOR: Sure.

AUDIENCE: The game

PROFESSOR: What else?

AUDIENCE: War and [? golf are. ?]

PROFESSOR: War. Golf. It depends on you, right? It depends on the player. Actually, a lot depends on the player. You can come up with the worst game in the world. Conversely, you can come up with the worst game and, well, and find people who would enjoy it.

And you can make it a game that's trying to deliver a particular message. And people are going to walk away with completely the wrong interpretation of it. And that's fine, because they are players. They-- I'll say it's not even a completely wrong interpretation. They come up with a valid interpretation that they walked away with it, and you had very little control over that.

But it's OK, because the game's more about players usually than about the designers. Even though you see the designers names on many of these boxes, a lot of them would have that, I think. In the end, there are relatively few famous game designers out there, but there are many, many famous game players out there. I think there's a good reason for that.

All the creative-- all the creativity that comes out from constraints, all the, as we're talking about sports, the athleticism. The ability to work within these constraints to do something that people didn't necessarily think that was possible is usually the Hallmark card of a great player. The designers just provide it, the sandbox for them to be able to express that way.

So I think when you come back on Monday, to be able to come in with a concept after taking a look at some of the readings. This is what I want to [? hit, ?] right, and I want to have a game that-- that has a goal. Or I want to have a game where the players have a goal. I want to have a game where the players are going to express a certain amount of creativity. Or whether it's-- they're really just sort of mechanically going through the possibility space.

I think we've got a couple of games that actually were very mechanical. And you're are just stepping through the-- stepping through the [? paces. ?] [? Some ?] [? are ?] [? closer, ?] and some of them is almost a little bit like that, right, because you don't get to decide what question you ask, I believe.

AUDIENCE: [? You just draw ?] the question.

PROFESSOR: Yeah, you just draw it. You ask the question. You get information, and, at some point of time, you get all the information you need. So-- so that's a game that has very relatively little decision making on the player's part, if you are playing optimally. If you're not playing optimally, then actually you're making a whole bunch of incorrect decisions that actually makes it a little bit more variable in who's going to win. And that's why the game's actually interesting.

Come in on Monday. Be willing to discuss that. Come in on Monday. Be willing to change your mind when you actually meet up with your team. We're going to do a little bit of brainstorming on Monday on what sort of games that you want to work on, and, more importantly, what

mechanics you want to work on.

One more clarification about the first assignment. It is not about the story of your game or the fiction of your game or where your game is set, in ancient history or in the science, sci-fi or anything of that. We'll get to that later on in this lecture. I want you to think about what are the rules that a player needs to deal with. Right? You are your own target audience, as far as I know.

That's it for class today. Thank you very much. Please make sure that you did sign in, if you haven't gotten the attendance sheet. [? Be officially ?] on it.

[INTERPOSING VOICES]