Press Start: Video Games and the Climate Crisis

https://www.climateone.org/audio/press-start-video-games-and-climate-crisis
Recorded on April 10, 2026

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Ariana Brocious: I'm Ariana Brocious.

Kousha Navidar: I'm Kousha Navidar.

Ariana Brocious: And this is Climate One. This week, we're all about games.

Ariana Brocious: Kousha and I decided to play a videogame together, online. He helped me get set up, including choosing an avatar.

Ariana: I really like the, the lizard. That's how I'm gonna go back to being the lizard.

Kousha: Yeah. I normally don't play as the mouse, but I found it very charming last time. Okay. I'm gonna invite you.

Ariana: Okay.

Ariana Brocious: We watched the opening story for the game, called Overcooked 2, to get a sense of what we were supposed to do.

Ariana: It's very spooky. Yeah.

Kousha: Oh, it's like Frankenstein.

Ariana: Yeah. Ah, the Unbread. So we're supposed to cook meals for the unbread, like zombie toast?

Kousha: I have no idea. Yeah, I guess so.

Ariana Brocious: A little ridiculous, to be sure. But we got into it, starting with making salads.

Ariana: Okay, now we need a salad with tomatoes.

Kousha: Okay, I got you. These are really healthy zombies. We're doing it.

Ariana: You've shown some exemplary culinary skills here.

Kousha: Have we?

Ariana Brocious: Then we leveled up to sushi rolls.

Kousha: Oh, now the timer started. So now we've got, they're adding a little bit of pressure to us.

Ariana Brocious: Kousha is a gamer who actually knows what he's doing. I, on the other hand...

Ariana: Okay. Fish two shrimp. Chop, chop, chop. Oh, is that what I was supposed to do?

Kousha: Oh, we're on fire.

Ariana: You're doing this rice like, I can't even believe how fast you are.

Kousha: Listen, I, I love rice. I have skills.

Ariana Brocious: It's a cooperative game but I was not helping.

Kousha: Gimme the rice back. Whatcha doing? Gimme that rice. That rice.

Ariana Brocious: And then things got a little.... heated.

Kousha: Now be careful with the rice because if you let it in the pot too long, it'll light on fire.

Ariana: Oh,

Kousha: so you just picked up the fire extinguisher. Which is proactive but not necessary. So you should put that down. Now you need to pick it back up because there is a fire and you use X, I think. Yeah. There you go.

Ariana: Oh my.

Kousha: Yep, yep. that fire is spreading. Okay. Yep. We gotta work together. Oh my. Okay.

Ariana: The kitchen is on fire! Uh, okay, the fire just keeps spreading.

Kousha: Oh, we got it. Okay.

Ariana: Okay.

Kousha: Okay, so that one we got negative 14. So some room for improvement. You wanna try it again?

Ariana: Yeah, sure.

Ariana Brocious: It was a lot of fun, once I got the hang of it. Or kind of got the hang of it. I did keep setting fire to the kitchen.

Ariana: Ah, come on. I have a huge kitchen fire going right now.

Kousha: Okay. We've trained for this. We've trained for this.

Kousha: Don't worry, I will continue, I will continue fulfilling the orders that I can.

Ariana Brocious: Kousha, you really saved our sushi in that game. I was a terrible sous chef.

Ariana Brocious: And special thanks to my friend Jason who let me borrow his Nintendo Switch so I could play! How long have you been playing games, Kousha?

Kousha Navidar: I have been playing games since I was five. My family got a SuperNintendo for Christmas.

Ariana Brocious: And obviously you're not alone. Somewhere around 3.5 billion people play games of one kind or another. That's approaching half of the world population.

Kousha Navidar: Yeah. So why are we talking about games today? Because lots of games use themes of a climate disaster as part of the storyline. And there are a lot of games today that are working to shift players' mindsets towards protecting nature and reducing climate.

Ariana Brocious: Yeah. There's Daybreak, a cooperative board game about stopping climate change.

Kousha Navidar: And The Sims, the OG game about life simulation, has an Eco Lifestyle expansion pack where players can run a clean-water and recycling project or build wind turbines to decrease their carbon footprint.

Ariana Brocious: And those are just a couple of examples. So today we're pressing start and talking about how games let people explore climate realities and possible futures in a way that encourages engagement, rather than anxiety and despair.

Ariana Brocious: Jacob Geller spends a lot of time thinking about games, how they're designed, the storylines, the art, and much, much more. He's a video essayist and author of How A Game Lives.

Ariana Brocious: Jacob, welcome to Climate One.

Jacob Geller: Oh, thank you for having me.

Ariana Brocious: So you play video games sort of for a living and write about them and analyze them. Do you have an idea of, you know, roughly maybe how many hours a week or a year you spend playing?

Jacob Geller: Oh, that's, uh, it's an impossible question. Um, you know, when you make your hobby your passion and your career at the same time, you just kind of lose track of all hours. But last year I rolled credits on about 60 video games, uh, which is a significant time commitment 'cause you can watch a movie in two hours, but some games take 50, a hundred hours to beat.

Ariana Brocious: Wow. So rolled credits means you played the whole game all the way through.

Jacob Geller: Yes, and some of those games are an hour long, but then some of them took months.

Ariana Brocious: Yeah. Months. Yeah. Yeah. Okay. So it's hard to make blanket statements about video games because it's a huge and diverse field. Tons of creators, tons of companies, so on. But

many games use a version of a climate crisis, you know, where humans have essentially destroyed the world as we know it, as a starting point for the story and the characters. Why do you think this is a common trope?

Jacob Geller: I think games love to put you in challenging situations in which you need to use a number of skills to survive. Recently, the idea of kind of scavenging collecting, maybe like, you know, rusted or decrepit parts and building back something great, is very popular in games and all of these things work really well into, uh, dystopic settings, and a kind of post climate crisis world provides a really good one of those especially because games often frame those worlds as very beautiful, of kind of like, you know, the rivers are running through the streets of our cities and trees have overgrown our skyscrapers. You know, almost a humans have died out and nature has retaken over kind of world.

Ariana Brocious: Yeah, I can see that there's some appeal there though. It's kind of a scary concept, but also, yeah, this idea of nature reemerging. Let's talk for just a second about a specific game. So there's one called Frost Punk. This is a society survival game as you're describing. People have to make decisions in the last city on earth to survive an apocalyptic winter. So I don't wanna stretch too far, but you've played this game, are there climate lessons, climate ideas embedded within a game like that?

Jacob Geller: Absolutely. I mean, it is, it is the context in which the entire game takes place and Frost Punk is kind of a game built on difficult decisions. You know, where, where you are already at such an extreme state where there is this incredibly powerful ice age that is kind of encroaching on your city that you are constantly having to choose do you mine more fuel for your generator? Even if that means people are working 18 hour shifts, do you allow child labor? Do you stretch food rationing even further? And so it's all of these kind of nightmare questions where there are no good answers, but the game forces you to pick one because it's saying, this is how extreme the situation is, this is what you're going to have to do if you want to survive this kind of crisis.

Ariana Brocious: That's kind of dark.

Jacob Geller: It's, it's an incredibly dark game. I think it goes into the category of game where I would say it's, it's very interesting and it's compelling. I don't really enjoy playing it. It's not something that I play to relax.

Ariana Brocious: Yeah. And do you think there's a message that's kind of a takeaway from the designers, or is it more just to create this experience as a, you know, as a game?

Jacob Geller: I don't wanna speak for the designers. Maybe they just wanted a fun context to make it kind of a survival game. But for me it is a, a kind of eminently more imaginable apocalypse than say aliens descended or Terminator robots took over. You know, this, this feels almost foreseeable. And, and so, you know, when I'm, when I'm playing the game, I am thinking, my goodness, I hope we do everything we can to stop us from ever reaching the point where we have to decide on this kind of food rationing or child labor or whatever it is.

Ariana Brocious: Yeah, let's keep it in the, in the futuristic non-reality. So as you touched on a lot of games involve elements of a kind of climate altered present or future. Not just the setting, but even just the gameplay. So resource scarcity, conflict, survival, rationing, you know, are those, from a game design standpoint, necessary because they introduce conflict and you need that for the drama?

Jacob Geller: I do think that, you know, creating tension is always, kind of leads to interesting game

mechanics. You know, if supplies were everywhere and easy to find. Then a player might not be motivated to go into more dangerous areas because they needed something specific. Recently even, you know, recent battlefield games, which I don't think of as a very thoughtful franchise, have incorporated ideas of climate disaster into them because it's more interesting to have a giant multiplayer shooting match if an enormous weather event breaks out in the middle of it, uh, you know, there are, there are ways in that introducing these kind of disasters can just create more interesting scenarios. But the question that I'm always thinking about with these is are they just using them as fun context or is there a more thoughtful reason that the game is putting itself in this specific situation?

Ariana Brocious: Right, and that probably just depends to some extent on the game and, and the designers and so forth. So we've talked a bit about some of the more dystopian frames and elements. There's also a lot of games that are classified as world building where players create new cities or civilizations from scratch. To me, these seem more optimistic because the frame is somewhat more positive and players have a lot of agency. I mean, they have agency in lots of games, but you know, they can kind of create a world that they want. Do you think that's a fair assessment?

Jacob Geller: I think so. I mean for decades in games, there have been these ideas of city building games, Sim city, kind of the, you know, the progenitor of these and they've continued, and many players I think find it rewarding among themselves to create their version of a utopian city, and that often includes the city runs on renewable energy or we have lots of, you know, accessible public transport or something. But there's also kind of an interesting side effect that these games can have, which is that sometimes in pressuring players to make an effective city, they can kind of present the ideas or like the problems of modern civilization in just kind of a naturally occurring way. Or if a player wants to build a modern city, they build the city center and they build suburbs. And then they realize just how much road infrastructure has to be built to connect the suburbs through the cities. And they realize just how much of their city has to be taken up with parking lots because those cars all need to go somewhere. And so it's actually not an uncommon experience for players to be gently radicalized against cars just in the process of trying to make an effective and efficient city.

Ariana Brocious: I like that. That's really interesting. I was gonna bring up another game in this, in this world of games, one called Cities Skyline. It's very much what you're describing of a game people can, can use to build a city. And I haven't played this game, but from what I understand, you can do things like implement congestion pricing or offer free public transportation. And then see how that plays out as you're saying, you know, how it affects maybe many people drive cars and where you need to build things. So that, that, to me, that's really fascinating.

Jacob Geller: Yeah. You know, when, when you're making one of these city designing games, the question is always, for a designer, where do you reduce the complexity? Because it would not be fun to make a player do every element of bureaucracy that goes into making a city. But in putting back in some of these, what we think of as nitty gritty legislative controls of congestion, pricing and whatnot, the game is actually centering those questions of, what it means to be an environmentally conscious city or a public transportation focused city. They're making the player think about that in the same way that if the game implemented tons of mechanics based around waste management. Suddenly all the players would be thinking about how their own city dealt with waste management. It's just a question of kind of what do the designers choose to prioritize when they're giving players controls.

Ariana Brocious: So broadly speaking, who is making games that have a core focus on climate change and, and are these games generally for a popular or more niche, indie audience?

Jacob Geller: All sorts of teams of all sorts of sizes are making games that use climate change in

some way. I will say that the more pointed games, the ones that are more kind of specifically have a perspective and can maybe be a little more explicit with their politics tend to be made by small independent teams. Some games, the biggest games have teams of hundreds or thousands of people working on them. Independent games often have a handful, five, 10, or, or even sometimes like one person. And those experiences, I think can be much more personal and much more specific about how they're interacting with the changing climate.

Ariana Brocious: Yeah, when we spoke before, you mentioned one, I'd like to talk about Umagurami Generation, which you told me translates to red sky generation, and this is made by New Zealand developer after pretty dramatic kind of apocalyptic wildfires in Australia. Can you talk a little bit about where the game originated and what the designers intent was in, in offering this game?

Jacob Geller: Yeah, so Umagurami generation was made in response to the late 2019, early 2020 bush fires in Australia. The developer is Maori and, and, you know, is specifically dealing with questions of what it means to be indigenous and colonized. In the context of this giant changing climate and the game, the game starts out, and it seems that you're just kind of playing as youth who are kind of chilling out while the world ends. The first several levels are you playing as just kind of punk teens. It's actually a photography game, and so your main mechanic is taking pictures of things. And you're just taking pictures of your friends and different things on the skyline and whatnot. And as the game goes on, it becomes more clear that the game is not just about wildfires, which the game, the game kind of uses this allegory of a kaiju. So it's almost like there's Godzilla, but Godzilla in this case is a metaphor for climate change. The real villain of the game is not the kaiju, though. It is the kind of. Institutions and industry that have allowed it to get there. You know, you realize that the naturally occurring things are maybe unpredictable or they're uncontrollable, they're hard to stop, but they've been allowed to happen this much because of the kind of neglect of companies and institutions that are supposed to be overseeing this. And so where the game ultimately ends up is not a confrontation with the climate disaster specifically, but a confrontation with police and government who are cracking down on climate protestors, it becomes very pointed at the idea of like, who is perpetuating the climate crisis and who is profiting from the climate crisis and what does it mean to protest these things?

Ariana Brocious: Wow, that's really interesting. How popular are games like that? In terms of the number of people playing them, do these kind of climate or green games stack up to the more popular ones?

Jacob Geller: It's difficult to put a specific number on it, but I do think that the widely popular kind of like more geared to, to a general audience, games are less specific about the climate crisis and games like Umangi generation, which are really pointed and really explicit in its politics, attract a more niche audience. You know, for me, I played that game because I was attracted to the idea of this kind of political message. But I am someone who really keeps on top of interesting developments in the indie scene, and I think most people probably haven't heard about it at all. It's, it's harder to make a pitch on, it's a photography game that's dealing with industry's failure to contain a climate crisis than what if you were a cool character running around abandoned buildings. That’s a much easier video game to pitch.

Ariana Brocious: Totally. Yeah. As we wrap up here, I'm wondering if you have recommendations of games that you think encapsulate some of this, whether it's a game that's enjoyable for playing, you know, regardless of the message or a game as you said that makes you kind of think about these things, confront some of these questions. Are there any that you'd recommend to players?

Jacob Geller: I would certainly recommend Umangi Generation, which we talked about previously. I

would also recommend, there's a developer named Kara Stone who's made a couple games that are very both climate focused and climate conscious in how they're made. She's made a game called Unearth You, which is in theory, a game about having kind of a digital AI therapist, but becomes a game about kind of the toll that. Having, having an AI therapist might wreak on the world around it. And another game called Known Mysteries, which is about living in kind of a company town that's being polluted. And Known Mysteries is fascinating because it actually runs on a solar powered server, that she just has in, I believe her backyard and powers the whole game purely through that meaning that it, it is an emission net zero game, which is a very, very uncommon thing.

Ariana Brocious: That's really neat. I mean, that is a whole aspect of this we haven't gotten into the climate carbon footprint, if you wanna say of creating games is obviously something to consider. And I know a lot of companies and developers are wrestling with that impact as well.

Thank you so much for joining us. Jacob Geller is a video essayist and author of how a Game Lives.

Jacob Geller: And thank you so much for having me on. It was a pleasure.

Music: In

Ariana Brocious: Coming up, a developer shares her approach to designing games with an environmental message and real-world impact:

Laura Carter: We don't tell the player what to do. We don't say recycle at home or eat less meat, but we show a story that shows devastation to nature and the player is then naturally learning as well.

Ariana Brocious: That’s up next, Press play to continue.

Ariana Brocious: Help others find our show by leaving us a review or rating. Thanks for your support!

Music: Out

Kousha Navidar: This is Climate One. I’m Kousha Navidar. I love it when my work and my hobbies overlap. To prep for our next guest, I obviously HAD to play the game she designed, called LongLeaf Valley. It’s a mobile game, free to download, which you can play on your phone. The mechanics are simple – you’re merging objects to advance the game. The further you advance, the more actions you can take: saving animals, creating habitats or planting trees. And as you score more points, those points translate into actual trees being planted in the real world. Laura Carter is CEO and Founder of TreesPlease Games and a lifelong environmentalist.

Laura Carter: I just grew up loving games. I just remember from a really young age, just playing games with my granddad, with my dad, with my sister. I grew up on Mega Drive games. It was Wonder Boy, Outrun, Sonic, a lot of those kind of classic games, and then became a PlayStation girl playing a lot of Tomb Raider and Jack and Dexter, and a lot of arcade style games. I think for me, I was just always drawn to games that felt really fun, quite light, nothing too dark and heavy, and it was just quite a sort of a social, fun, escapist experience for me. And it just was a natural, like almost an obvious thing where there was no question in my mind that I wanted to work in games and wanted to make games.

Kousha Navidar: Yeah, I, I'm happy that you mentioned Sonic. 'cause I remember the moment that

I bought a Sonic game on game gear with my mom. Like, I remember the shop, I remember pointing to it. And I have, I actually have socks that are Sonic the Hedgehog Socks now. So I'm a, I'm a diehard. You spent most of your career working in the game industry while having side passions around environmental causes. And about seven years ago, you merged those two interests and you founded your company, which is TreesPlease Games, and you're explicitly making games here that protect nature, fight climate change, and are loved by millions. Was there a moment or, or a thought where you realized that there was a need for your company and, and what was the story behind that?

Laura Carter: I think you said it very similarly to how I feel, which is really a merging of my two hearts of myself, which is very much around a sort of a path. Purpose or a calling for, for nature and the planet. And just, I think just from a very young age. I think I was three or four when I told my parents that I was gonna be a vegetarian, that I didn't want to eat animals, that I started really caring about pollution and the environment.

Kousha Navidar: Three years old at three or three or four you said?

Laura Carter: Yeah. Yeah. I think as soon as I was old enough to understand what a chicken was or what a cow was, you know, I, I, I knew. And so yeah, I think it was just always there. And, into my teens and twenties, I did fundraising and, you know, activism and, and, and very involved in, in all sorts of different campaigns around animals and environment. But meanwhile I had this career in games and as I mentioned before, growing up, playing a lot of games as a kid. And that was my, kind of my fun and, and, you know, then the other side is my, my purpose and I got to a point where it just really clicked that. These two things had to come together. And that the real opportunity, the real kind of activism where I could make a much bigger impact at scale was, was through reaching gaming audiences. You know, I was working on a game that had hundreds of millions of downloads. And you know this, that's where engagement time is, right? It's people are spending more time playing games than any other form of media, and it feels like the games industry was far behind other forms of entertainment.

You know, we've seen in, in TV and in film and in the music industries, lots of compelling documentaries or big movements around music as a way to create, you know, awareness around different causes. And it felt like the games industry really wasn't kind of leveraging all of that engagement time to do good. So yeah, I decided to quit my job at a massive games company making one of the top grossing games in the world to actually start out and see if we could, you know, make a game and, and build a business that could reach vast audiences, but really leverage to do good for animals and nature.

Kousha Navidar: To me, it sounds like you're saying in order to make the biggest difference possible, you have to meet people where they're spending their time, is that fair to say?

Laura Carter: Yeah, this, this stuff keeps me awake at night, which I'm sure it does. A lot of people who are really invested in, environment and nature and planet and, um, I am just always looking for ways that I can do more impact and, you know, activism that actually really resonates and is and is valuable. And so it was obvious to me that, like where people spend their time and money, in games, it's such a huge industry. It makes such an incredible amount of money and has such an incredible amount of engagement that there's a huge lost opportunity in terms of making a difference by, doing impact gaming ultimately.

Kousha Navidar: Yeah, it's a good point because environmental causes do keep people up at night. You know what else keeps people up at night is Candy Crush. So they are kind of strange bedfellows, if you'll excuse the pun.

Laura Carter: One hundred percent.

Kousha Navidar: Let's talk about your game that you created. Your flagship game is called Longleaf Valley. The story of LongLeaf Valley asks players to uncover crimes of a mystery corporation behind a national parks destruction and development. So this is an environmental challenge, but one thing that struck me is that it's different from what's driving real world climate emergency. So for this game, how did you think about the story that you're telling?

Laura Carter: So like real world activism that I would be involved in versus the way that we portray things in games has to be obviously slightly different because games are ultimately about fun or escapism or whatever, like motivation that players have. They don't come to, to games, first and foremost to become educated or to, uh, make a change in the world. So we have to really consider that carefully, and engagement, particularly in free to play gaming. So we are focused on mobile free to play gaming. And so that means the game is free to download. That means that keeping people's attention is incredibly difficult. There's tens of thousands of different free to play games available on the app store. So you are really competing in such an incredibly, competitive market. So you have to be careful in terms of how, you know, preachy, you come across how heavy you are with some of these themes. So you really have to balance, hooking people in exciting people, uh, making the game fun and thinking about what does the audience want. They ultimately, particularly with the types, types of games we play, is often about relaxation, escapism. Quite casual but, but meaningful experiences. And so, the story in Longley Valley was really about, people feeling a sense of purpose restoring and protecting a national park or a wild space, um, rescuing animals and nature, but it being a really positive, uplifting experience. But meanwhile, there's also. Themes of, drama and, interesting characters and compelling mysteries that the player is, you know, always kind of guessing at. And so you need those different aspects of, of light and joy and drama in order to, to, to make the story compelling ultimately.

Kousha Navidar: I'm really happy that you brought up this idea of being preachy. 'cause I think that's what a lot of people in different parts of climate world think about a lot when it comes to communications and storytelling. How do you think about it? Like what's the level at which you feel like you're being too preachy or do you have rules that you follow or is it just a gut check? Like, tell me more about that. When you're building a video game.

Laura Carter: I mean, I think you could experiment and test this stuff to the nth degree, and still, maybe never get it exactly perfect. And obviously you are dealing with millions of different players and different players have got different levels of what's too freaky for them versus, you know, other players who are incredibly sensitive. Feel like they're being told anything. So it's difficult to get it exactly right. I think for us, knowing that we are a mission-focused studio and everything we do has to, really push the boundaries of impact gaming. You know, we're, we're kind of willing to take risks there and perhaps we are more on the preachy side than, than other games. Ultimately, yes, we do have to balance that with enjoyment and fun. I think about like a big part of my inspiration was the movie, Wall-E, which is so good because –

Kousha Navidar: I love that movie.

Laura Carter: Yeah. It's such a clear message. It's such a, you know, compelling vision into the future of earth that's been, you know, destroyed and everybody's living in space and looking for life that they can restore on earth. But it doesn't ever feel preachy because it's full of those comedy moments. Um, and the film doesn't turn to you and say, listen, you know, this is what you've gotta do to get your act together. They're just observing the story and they're kind of putting two and two together themselves about being told. And I think that's the most important thing for us as we think about. We don't tell the player what to do. We don't say recycle at home or eat less meat, but we

show a story that shows devastation to nature and how the trees are being cut down. We have the characters interfacing with each other saying, oh my God, I had no idea that animal agriculture was the leading cause of deforestation. And they're learning between them. The player is then naturally. Learning as well, but I think anytime that you turn to an individual and tell them what to do, we know that from our own interactions with our our families, right, that if someone tells you what to do, even if they're right, you are naturally defensive. So.

Kousha Navidar: if you're the child, but yeah,

Laura Carter: Yes. Or an adult dealing with an adult parent. Right. Um, but so yeah, I think being not preachy is, is about the way that we convey the information rather than not conveying the information.

Kousha Navidar: And you. Laura, you are making a game. Like you said, that's a freemium game. You're trying to create the lowest barrier to entry possible. Why do you want to approach games in that way versus making a different kind of game that might be more suited for people who are really into video games, for instance?

Laura Carter: That's actually a really important point for us, and it's very much a part of our strategy, which is that. You know, I mean, there's all different types of strategies that work really well, well, for making top performing games, but some of those might be, for example, you know, a slightly more niche product that has a, like you say, a more traditional core gaming audience. Maybe it's played by people that, you know, play on a console or a pc and they're willing to spend a lot of money on a game, and play for many, many, many hours or weeks or months, versus, you know, a much more casual audience that might have a, a, a mass market audience, you know. Everybody has the potential to be a gamer. Anyone who has a smartphone in their pocket. Ultimately for me, that was when thinking about the initial strategy when starting Trees, please, you know, how can I make activism become as big as possible? In gaming, it's, well, let's find where the biggest audience is, and ultimately that is through, mobile free to play and through, you know, casual games and people who often don't consider themselves to be games and as I say, this was a big part of my inspiration was seeing how, you know, I always played games as a kid and all throughout my, my youth, and now my mom plays. Like three times as much games as I do. But she wouldn't call herself a gamer. But she plays, you know, the candy crushes and the words with friends and these casual social, you know, light games that still have a, an incredible amount of depth. So that's a big part of, of what we do is, is make games that feel accessible and that can reach a vast audience. and that's both great from, you know, purely from a games perspective because you've got a vast audience to build a, you know, a hit game with. But also from an impact perspective, we've got a vast audience that we can use to both, capture donations for different causes and also to a big part of our strategy is around normalizing planet positive behaviors. And so the biggest audience possible that we can, you know, shift public opinion around is obviously where we, where we wanna target and focus.

Kousha Navidar: Yeah. And, and speaking of the causes, let's go back to LongLeaf Valley and, and the mechanism towards that, because in the game, players earn tokens that translate into real tree planting credits, which you accomplish by partnering with tree planting organizations. And so far you've helped plant more than 2 million trees. And my question to you is, why do you think it's useful to get people to play a game to accomplish tree planting rather than simply encouraging them to, for instance, donate directly to tree planting efforts?

Laura Carter: Um, so we're approaching three million trees now, which is a massive, exciting milestone that we are really looking forward to hitting. and I think the reason we've been able to plant that level of trees is, is exactly because we've embedded it in games and not ask people to go elsewhere to do something. I think the reality is, is that the vast majority of people really care about

the planet. They really care about nature. They really care about some cause or other, whether it's not climate, it could be whatever different, need, or campaign. But the reality is, the vast majority of those people don't necessarily donate, consistently or regularly, or do activism or campaigning. That's just because life is so busy, or people don't know what to do or how to help or where to start. And so I think the really important thing is to just in such a, a, a culture of just busyness, right? And just information overload is to just make things really easy for people. One of the ways for us as well is, is not only keeping it in game, but just to, to not build anything additional in game so we don't send people to a different menu or, or, or a separate website, just keep it in your existing systems, in your existing loops just means that players don't have to think about it and it's just effortless. And then people feel like purposeful and like they've done something great in a way that's really simple, which means that it's a win-win where the player feels good. You've raised money for charity and also you've retained the player within the game as well. And you get that, that feedback loop, that reward. And that's fun for players. It means that the fun's happening regularly, but it's also meaning that when you're building impact into that loop as well, you are building a repetition of, of, of impact, a positive play behavior, and that's reinforcing that in the real world and making those behaviors stick more.

Kousha Navidar: Yeah. How about skepticism though? I'm thinking about skepticism you've probably faced about the value of tree planting as a carbon sequestration solution? I mean, do you have evidence that your tree planting work is making a difference?

Laura Carter: So we've been very selective about the different tree planting partners that we work with. They've been, already reviewed meticulously and recommended by, organizations like the UN Environment policy team. So the organizations that we work with actually, monitor and protect the trees for like a 10 year period, and they work very closely with local communities to, build value amongst the communities to create jobs and to create, value where the, the trees are, are more important to those communities when they're thriving as opposed to being cut down.

Kousha Navidar: Let's go to exploring games as a medium for experiencing this kind of work. Like how can games let people explore climate realities and futures that are very possible in a way that allows for greater engagement rather than, I dunno, reading a science report that just leads to anxiety and despair.

Laura Carter: Just the fact that it's such an immersive medium, right? The fact that, you know, the player is actually doing rather than viewing and learning means that they feel that sense of, that sense of agency, means that players just have that additional, buy-in. I think the fact that you can influence the outcome of a game, right, means that there's a different level of engagement that you can get. There's such an effective system for kind of shaping thoughts and feelings and, and ultimately behavior because of that level of immersion and emotional engagement. So I think where games are able to let the player feel like there's a sense of hope, there's a sense of, you know, I can influence this, is much more compelling than, as you say, just being kind of inundated with, with negative sentiment or statistics.

Kousha Navidar: I think that's such a good point. The sense that there is agency, you're not just seeing a story unfold there is this sense that you have control over what the story is much different than like a documentary, for instance. So that, I'm really happy that I heard you say that. I think I'm gonna carry that with me for a while. 'cause there is that sense of, um, you said hope, I don't even know. Yeah, I think hope is true, but the sense of like, I have agency that is so important. 'cause that's what's missing from life sometimes.

Laura Carter: Even if we, even if we don't have agency to solve it in the real world, if you can escape into a game and feel like you're solving these problems, I think making people feel that little

bit better, through the experience of having in game is, is certainly something.

Kousha Navidar: Yeah. Laura Carter is CEO and founder of Trees, please Games. Her game that's available right now is called Longleaf Valley. Laura, thanks so much for making games. Making games do good work and for hanging out with us. Appreciate it.

Laura Carter: Thank you so much and really a great opportunity to chat to you and some really awesome, interesting questions, so I've really enjoyed our conversation. Thanks so much.

Music: in

Kousha Navidar: Coming up, video games allow players to experience alternate realities and future climate impacts in a way other forms of media can't:

Sam Barratt: Nobody can really understand what does a few degrees of temperature rise mean and look like, but the video games offer a crack in the door so we can start to anticipate what might come next, and then we can be more adaptive or resilient.

Kousha Navidar: We're going to the next level, when Climate One continues.

Music: out

Kousha Navidar: This is Climate One, I'm Kousha Navidar.

Ariana Brocious: And I'm Ariana Brocious. Kousha, are you familiar with the Green Games Jam?

Ariana Brocious: Well basically it's an annual competition for the gaming industry to showcase their efforts to drive player engagement and activation around environmental or climate issues. And it's run by the "Playing for the Planet Alliance," part of the UN's Environment Programme.

Kousha Navidar: Nice. So it's like, as a game developer, you get resources to incorporate environmental themes into your game, but I'm guessing since it's the UN, you as a game developer are also getting support about actually making your game development more carbon neutral?

Ariana Brocious: Exactly. I talked about all this with Sam Barratt, Chief of Youth, Education and Advocacy, UN Environment Programme. And my first question to him was, why video games?

Sam Barratt: I get asked that question quite often, like why video games? And I think for us, we hold it in balance with a portfolio approach. So we work on formal education, getting governments to think about green jobs and skills. We work with universities, but on non-formal education outside of the core curriculum, we think we need to go where people are in the mediums they love and they spend their time. And having spent a lot of time with my son playing various games with my friends playing games, I know that the video game's medium really is winning hands down when it comes to engagement, the attention economy. And so we think the video games industry has high potential for impact in terms of engagement, and that's why we've, uh, dropped anchor there.

Ariana Brocious: Yeah. And can you say a bit more about the size of the audience, that you think you have to work with here?

Sam Barratt: Yeah, I mean, the size of the audience is, is, monstrous. It's 3.3 billion people that play games and they range from my mother-in-law that will sit with Candy Crush just flipping left and right. They range to my wife who plays wordle in the morning. They range to my son that's got a whole list of games, uh, some of which are approved, some which aren't. Um, and it ranges from a whole spectrum of games, but it's 3.3 billion people. So 50% of the planet Earth are playing games, whether it's casual or serious. So it's massive. And the thing that I think is really different about games, it's a lean in medium. It is the ability to really engage with people and be active with them. Like when you play a game, you are the hero on that journey. Uh, sometimes when you listen to music, you're like, I love this artist, and you're emotionally attached. When you play sport, it's a collective endeavor. I think there's something very different about this cultural lever that if you pull it, it can allow people to socialize that conversation with their friends that they play with. It can allow them to experience and journey by play to learn or whatever it might be through that, that game mechanic. And so I think video games have a bit of magic in them, something slightly different, that if we could harness it and tap it and touch it in the right way, always respecting those that made the games, uh, to know what they're doing, then I, I think there's something in there.

Ariana Brocious: Yeah, there's an interesting op-ed you wrote earlier this year called All Still to Play For, and in it you mention one of the sort of unique powers of video games, even ones that aren't fully immersive, like virtual reality or something. That even basic video games can give us a glimpse a sense of an alternate reality, possibly a future one, and particularly things that might be hard for us to imagine day to day like a climate disaster or what climate impacts we might be facing in, you know, the next few decades. So can you, can you explain a bit more of what games or, or scenes you're referencing there, what you're thinking of?

Sam Barratt: Yeah. So, there's a great quote that I often refer to, which I can't source, but it's about the way we talk about the future shapes it. So the kind of stories that we tell ourselves can be prophetic. And there are many games where the hero has a journey which can be fairly, Bad in terms of the outcomes. Uh, and they're fighting against all odds. There's so many games out there where the character is looking to either survive or try and make the world the one that we all want. So I think there are a number of games out there. That I think are really interesting about how the people that play them can see either a very deep immersion in nature. So, and there's an opportunity through the landscape of the biodiversity that's often in the, in the, in the background of the game, could come through to the foreground. Or to look at that very difficult systems game where you have to keep things in balance. And I think we've seen that with Anno 1800. We've seen that with Minecraft where it's all about how you can keep everything on an even keel. Many of the games that I've played in my past and present, I think have that jeopardy in them. But the jeopardy, I think, is pretty similar to the jeopardy that we face outside a game in the real world around what kind of feature we face. So for me, I do think video games offer the chance for us to think about what might come next, to explore it to test it. I think nobody can really understand what does a few degrees of temperature rise mean and look like, but the video games offer, uh, a crack in the door so we can start to anticipate what might come next, and then we can be more adaptive or resilient to that, to that future, which we may or may not want.

Ariana Brocious: Mm. elsewhere. In this episode we talk with a games reviewer Jacob Geller, who really views them as an art form. You know, there's so much, um, beauty. In, in some of these landscapes that are created that are all virtual, , that can also have a really affecting power on our human psyche. Right. Because as you said, you're sort of exploring these landscapes that may or may not be akin to what we see today or what we could see in the future. We talk with Jacob about how many games tend toward a dystopian frame. That's kind of a common trope. It introduces drama and tension. It's useful in a, in a gameplay sense, but also it's shaping the way we're thinking, as you said. So how do you think about what players take away from a game that's framed, more

dystopian rather than, you know, utopian?

Sam Barratt: Yeah. so. I mean, I do think that's a problem that's not just in this medium, but also in film and tv, which is, it's easier often to tell a pessimistic narrative that you recover from rather than optimistic narrative that you then participate within. So I think there is a dynamic tension there around how we as a species like to view ourselves. And I think we always have crises, whether it's a nuclear war crisis, whether it's a climate crisis. I think we've always had a shadow that leans over us. And that leans to, to stories kind of coming out in that way. But things I like is like John Master, the lead character in Red Dead Redemption galloping around on the horse, uh, across the, the us I dunno when it was sometime last century, but I know a lot of people enjoy just going on the top of the mountain and just looking down at the view. And so. The awe of nature, the awe of landscapes, the wonder of the world, and the richness of the artistry of those that make the games, I think is really, I, I agree with, with Jacob who said that it is a form of culture as a form of art. I think culture is often a subjective frame, and you can argue one thing's culture, one thing's not. But I, I do think the video games industry is emerging as a teenager in the cultural space, and I think it definitely has culture written all over it.

Ariana Brocious: Hmm. So you helped found the playing for the Planet Alliance in 2019. What was the idea, inspiration behind that?

Sam Barratt: There have been a lot of people that have been doing some thinking on this. So Jude Doer, who's now at Planet Place, been doing some great work and I'd had a couple of conversations with her in London. Trista Patterson, who was at Xbox at Grid aal. She and I had some ideas about what we think we could do. So there's a number of people that were scratching the surface of this. But what I've always been interested in is big ideas. And I play with my son a lot, particularly in, in, in, uh, the COVID era where, he wasn't really at school. Um, but games were a way to connect with friends and play. And he had the bad luck for me to be one of those people that played with him. So, um, I just saw how much time he played and we were trying to manage and mitigate that to some degree as fairly good parents. But I felt like having worked in my past on organizing climate marches to get 400, 500 million people out on the streets, that there's something really interesting in what the video games industry can do in terms of capturing the imagination. But also what I think it can do is it can give our people the opportunity to be incentivized, to take action, to have information presented to them that I don't think any other medium can. 'Cause say for example, an artist on the radio says, I care about this. I would like you to do this. You have to remember what she's, he or she has said, remember where you have to go and then do the thing. Whereas I think in the games domain, it's all there for you. So I do think it's an interesting place where the opportunity, and the attention is captured so you can convert the into action relatively efficiently if you come up with a great idea. So that is a bit of the theory behind it, but the practice of it was also talking to people like Jim Ryan at Sony PlayStation, um, who then wrote to Phil Spencer at Xbox and said, normally with mortal enemies on, on, on many things, but on this course, we can agree to come together. For me, change happens when people down their weapons and choose to collaborate rather than compete. And so the spirits of playing for the planet is how can a sector lean in together on a, on a cause to see what difference that they can make, uh, when they choose to.

Ariana Brocious: Mm-hmm. So a survey by the nonprofit planet Play released last year found nearly 50% of gamers reduced their environmental impact after playing games that highlighted the issues of climate change and about the same number of respondents said, games can play a role in solving climate change, or addressing environmental issues by raising awareness, educating players. That's all really encouraging. Do you have any real world experience or stories that back that up of, of changes you've seen from players?

Sam Barratt: Yeah, I think there's examples I'll give you, which are beyond those macro stats. One

is Wooga, who have got a lovely game called June's Journey that's always in the Green Game Jam. Normally always wins players choice. And they ran an activation that shows how you can build engagement by putting these themes in play. They ran it for four months and there was a massive bump in daily uses for them, 1.5% about what they would normally get, which is significant. They were able to raise. Much more money than they anticipated, which planted 25,000 trees. And so by putting this theme in that game, they got really good response from their audience who were looking for things like this so they could play games that were there to make a difference and to give them that opportunity to kind of click through for impact. So that's one. I think there's something interesting around what Sony have been doing with Oxford University. Uh, so they developed a game with Media Molecule to look at food choices and they gave players a budget where they could go and buy some food and learn to play to understand what difference a plant-based diet could make. And they found even three weeks after people playing the game, 20% of the people were still staying with their plant-based habits, which I think is really interesting. And the difference wasn't just that people were being given the incentive to do it, but it was the socialization of it. So for me. The way that the games industry has this superpower is the reinforcement of choice by people like me. Doing things like I think the right thing to do gives you validation around the choices that you're making. And so this Oxford research is fairly breakthrough ish in inverted commerce. And that I think is what we wanna spend a bit more time on to see what's the difference that makes the difference, and to look at that a bit more.

Ariana Brocious: Yeah, that is really interesting. I mean, the socialization, there's so much discussion around that in the climate space, just this idea of kind of positive examples. You know, you see your neighbors have solar panels, and you think, oh, maybe I should do that. You see EVs being driven around your neighborhood or you know, your, your work and you think, oh, maybe I'll, I'll get on board with that. And so this is another version of that. For people who are spending a lot of time, as many of us do in the games space. According to some estimates, the gaming industry represents the carbon footprint of a small country, and your alliance is partially focused on decarbonizing the industry. What progress have you seen on this front?

Sam Barratt: So, yeah, I mean, I think the carbon intensity of the games industry is nowhere near the size of aviation or steel or cement. So, what we're looking to do is to support the industry to become an exemplar sector. That has a plan that it's putting in place. Then also if it's going to be calling on players to, to maybe consider doing things and they haven't taken action themselves, then that's a slightly hollow approach that might get seen through fairly quickly. So I do think exactly the two circles overlay each other. So I think on the decarbonization, we've seen some really interesting things coming up. And just at GDC the other week, fascinating conversations –

Ariana Brocious: What's GDC?

Sam Barratt: GDC is Games Developers Congress, which is now a festival over in San Francisco. And we hosted a, , a round table with about 15 of some of the biggest video games companies in the world around what they're going to be doing on energy efficiency. And that was with engines that kind of power most of the games. So whether that's Unreal Unity, that's with the platforms. And there's some really good energy about what people can do with energy in a different way, uh, which was really reassuring. And, um,other actors like Sustainable Games Alliance got other good ideas, which are worth looking at as well., But I'm seeing momentum on this. But the main thing is speed. That's the thing I worry about more than anything.

Ariana Brocious: Yeah, and I think it's a fair point that this is not one of the biggest contributors, so certainly it doesn't have the same impact as maybe some other sectors that really need addressing. When we spoke before, you mentioned that, you know, players have an interest in this from an aspect of wanting to have games that are lighter, that run faster, that take less energy and

thus let them play longer. What do you hear from players about these priorities? Do they like playing green games? Do they care if the companies decarbonize? You know what? What's kind of their assessment?

Sam Barratt: Yeah, so. There is evidence that players are, are, are into this for a range of reasons. Some of them are altruistic, but some of them are also about helping them play a game for longer and lighter without the buffering. I do think we've seen with both Xbox and Sony doing, uh, efficiency toolkits for Studio C that they are being taken up and being deployed, which is great. And that wasn't happening two years ago, but it's happening now. So I think it's in everyone's interest too. Not spend so much money on power by having games that are running too hard to be able to potentially play, uh, for longer, for lighter. And then also to think about how we can support the industry, reduce its submissions as fast as possible.

Ariana Brocious: Yeah. Okay. What advice do you give today's game developers and companies for how to incorporate climate consciousness into their work?

Sam Barratt: We'd rather see ourselves as the librarian that can offer a great book for somebody to go away and think about, which could inspire them to think how they could then deploy it within their context, within their culture and within their organization. So for us, I think there are two tricks of the trade. One is to give people great advice, science based. Let them know what has worked, some really good use cases, um, which we have on, on the site. And then also to get people together in a room where they look at everyone else and say, oh, you are doing that. I hadn't thought of that. So for me, ideas are currency that people like to trade in, and so we try and give people the opportunity to come to the table and do that.

Ariana Brocious: I love that because we've recently interviewed a couple mayors, on Climate one, and, They say they have a similar way of thinking that they like stealing ideas from each other. There's this sort of friendly competition, but that is ultimately rooted in like what's best for their city and for their constituents. But you know, oh, this person has a really aggressive tree planting plan or carbon reduction plan. Like, let me see what about that I can steal and incorporate into mine. So that's interesting. Sort of healthy, friendly competition maybe. Um.

Sam Barratt: And the thing that I think is really encouraging is Super Cell who do some of the biggest games on the planet, on your mobile phone. Um, but really start to think about this, about converting this from not just being something that happens as a season, like with the Green Game Jam, but making it part of a ritual so then it can become part of an identity. And so what they're starting to see is engagement rates of 90% in some of their offerings on these themes because people now expect it of the games like Heyday that they do these kind of things. And I play these kind of games 'cause they give me the opportunity to make a difference. And so in the same way that in my youth, I used to love going to the scouts, mainly to spend time in the woods, hang out with mates and do different things. I used to love we had this countryside club at school. I had the chance to really kind of get close to birds. And birds for me are the things that I always look up to the sky and it'll tell me, uh, if all is right or wrong with the world about when the swallow arrives, when it leaves the sounds, I hear of the chicha when they come, when they go. And so for me, I think the rhythms and the sounds of the planet are things that really happen in the real world. And so what I'm really thinking about is how do we keep that connection to nature so people are on their screens because it's kind of challenging that I think is tricky. And we're seeing that all over the shop, whether it's on social media or video games or even with a hours as it comes through.

But what I'm thinking more and more is about that connection to nature delivers so massively on mental health and delivers so much about if we spend time in nature will fight for him. So the challenge that I'm thinking about is. How do we use playing for the planet and the themes of the

natural world to make sure that people spend time in it so that they think about the value that it can give all of us, and we do not take it for granted, because that's one of the greatest risks I think we all face as a, as a species on this planet.

Ariana Brocious: Sam Barrett is Chief of Youth Education and Advocacy at the UN Environment Program. Thank you so much for joining us on Climate one.

Sam Barratt: Ariana, it was an absolute pleasure.

Music: In

Ariana Brocious: Hey listeners, it's Ariana and Kousha, it's the end of the show and I am excited to share a message we got from a listener in response to a past Climate One More Thing. A few weeks ago I mentioned the ongoing efforts in many states to legalize balcony solar. Listener Sarah Woodhouse used our handydandy speakpipe and left us this message:

Hi, thank you for the Climate One more thing about balcony solar. I just wanted to let you all know I'm calling from Virginia, my name is Sarah Woodhouse and our general assembly has passed balcony solar and it awaits the signature of Abigail Spanberger, our Democratic governor and she is expected to sign it. It was passed in both houses, the house of delegates it was passed unanimously which was very interesting and wonderful. And only 8 senators in the Virginia senate opposed it. Thanks for covering that and all you do.

Ariana Brocious: You can leave us a message. We want to hear from you! Go to climateone.org/hello

Kousha Navidar: And that's our show. Thanks for listening. You can leave us a message anytime at climate one dot org slash hello, and you can also sign up for our newsletter on our website. Talking about climate can be hard, and exciting and interesting -- AND it's critical to address the transitions we need to make in all parts of society. Please help us get people talking more about climate by giving us a rating or review. You can do it right now on your device. Or consider joining us on Patreon and supporting the show that way.

Ariana Brocious: Climate One is a production of the Commonwealth Club. Our team includes our final boss Greg Dalton, Brad Marshland, Jenny Park, Austin Colón, Megan Biscieglia, Kousha Navidar and Rachael Lacey. Our theme music is by George Young. I'm Ariana Brocious.

Music: Out