

AT: Welcome to the Infinite Women podcast I'm your host Allison Tyra and today I'm joined by Dr Jennifer deWinter and Dr Carly Kocurek from the Illinois Institute of Technology. Regular listeners may recall that Jennifer was on the podcast before to discuss gender and video game culture and today she and Carly are here to tell us about some of the pioneering women in the video game industry. So who would we like to start with?

[Listen to Jennifer's episode on video game culture](#) or [read the transcript](#).

CK: So Roberta Williams has this very nice kind of persona story where she played an early adventure game, she loved it. She was like, "wow maybe we could make something like this." She gets out a giant piece of paper, maps out an entire game on it and then her husband Ken Williams, who had recently purchased a computer, then goes and develops the game on the computer. They work on it together and that becomes Mystery House, which is often considered the first graphical adventure game. That helps them launch what becomes Sierra Online, the company goes through a bunch of different names, but Sierra is good. And they create a bunch of landmark series, including King's Quest, which Roberta Williams is the lead designer on. And a number of other designers actually work there at various points, notably Jane Jensen works on a number of games at Sierra under Roberta Williams and then goes on to a pretty lengthy career in games herself.

AT: And so when you say graphical adventure game, as someone who is not a gamer, I freely admit I'm ignorant. Could you tell us what that means, like why that was such a big deal?

CK: Yeah so the earliest adventure games were all text-based. So the phrase "get lamp" is from text-based games. So you would have to give these really simple two-word commands and you didn't have any way to orient yourself in the world. So you'd have to be like drawing the map or drawing the building to figure out where you were. When you start having graphics, you can start having things like, oh you're standing in front of the building and you see the building right instead of just imagining you're in front of a building.

JD: Right, it's like the next generation of kind of choose your own adventures. So choose your own adventures are completely verbal and you're switching pages. In this, you're able to see like a simplified graphic on the page, there's words, you can type in a command, versus go to a page, so it considers increasing the interactivity by giving more agency about what you're interacting with.

AT: And so according to my notes, she and her husband released their first game Mystery House in 1980, so just put that in the broader context of just how early they were actually doing this, because when you're describing text-based games I'm just like, "wow, how long ago was that?" Like how far have we come that that doesn't even occur to me as a thing that came before what we would have seen in the '80s.

CK: Yeah, to be fair we do still get text-based games., like there there's a pretty vibrant interactive fiction community. And it's always six of one, half-dozen the other, where you'll have earlier graphical games but they weren't adventure games or earlier graphical games but they were on arcade consoles and not on the home computer. So there's different moving parts of how games developed that are often happening at the same time. I always tell students we kind of move through history in loops and so stuff isn't in a line in the way that I think we would wish it to be.

JD: Right, and if you think about how early that is, 1980. Pong's like mid-'70s - is it '75, Carly? (CK: '72.) '72. I think goes commercially big in 1975. So Pong is '70s. Atari gets started in the late '70s. She's right at the beginning. She's prior to what's called the Arcade Crash. So she's in this big speculative moment of video games in the US and in many ways defines what that is. I actually want to also go back to a point that Carly was making about adventure games and the weirdness and malleability of what we mean when we're

talking about these genres. Because we still see adventure games and she was talking about visual novels, but like coming out of Japan you're getting otome games, you're getting yaoi games, you're getting dating sim games. These are all coming out of that same sort of choose your own adventure model. So these have not disappeared. At the same time that people are playing photorealistic Halo, people are still opting to play these narrative-heavy, choice-based systems.

AT: So is it just that we have more options, like they just sort of opened up the field a bit more and so you could actually choose not just your own adventure but how you want to interact with this medium?

CK: At this point, there's so many different kinds of games and many, many different people play games, and there's all these different platforms. Whereas if you look early on, you've got arcades. The computer consoles don't really take off in the way that we think of them until a bit later, because, various things around cost and technological affordances and stuff like that. And so there's a real limitation on what you can do. So the computer in some ways can do the most. Arcade cabinets are super weird, a lot of them are actually operating on custom hardware, like you can't you can't swap the game out, it's like hardwired in. There's no way to adjust it. It's not really a hardware system and a software system, it's both. And then the earliest cartridges are really, really limited in what you can do on them, just because they don't have anywhere to save anything

AT: And so you mentioned the Arcade Crash - is that just a situation where because we started having handheld systems and in-home systems that there wasn't as much need to leave the house to do it?

JD: Dr Carly Kocurek wrote a whole book on this - hello, Dr Kocurek!

CK: Everything's always a little stupider than you think it would be. So this is a quite a bit earlier than handheld systems right so this happens '83, '84 and it really is a bubble burst. So there's a lot of investment and rush to market in coin-operated games in particular. But in video games, Atari at that point controls something like 75% of the US market so it's really hard to overstate how much, when we talk about failures in the industry at this point, we're really talking about Atari, a company that was not run by grown-ups for much of its history. And so Atari has been making money and making money and making money. It kind of gets a little shaky. Warner Brothers scoops it up and pumps a bunch of resources in and hires some real managers. And then Atari, that has always, always, always hit its sales targets doesn't. And it just tanks their stock. It takes Warner Brothers stock, it brings them down with them. And so it causes this rush out of the market, like there's a panic where it's been seen as this gold mine and then suddenly like, oh it's real business and there's real risk. There's places in this that are more brittle or more sad or both. So there are small operations where people had gone into operating arcade machines and they they get eaten alive. They lose all the money they'd invested in this. The bottom kind of falls out, they've been relying on novelty and all this enthusiasm and that starts to wane right but some of that also has to do with, the bubble's gone.

JD: And this is a really US-centric version of it, so the Arcade Crash doesn't hit Japan. So Carly's an American studies person, has a very American-centric version of this. Japan weathers this completely, partly because they are not dominated by one company, Atari. Atari is a very bit player in Japan. There are other companies already acting in Japan - SEGA, Nintendo, Taito - a number of them. There's a few other differences, another difference is that US games cost a quarter. Japanese games cost the equivalent of a dollar to play because they have 100-yen coins, so the buying power of one dollar. So already the arcade games are bringing in more money. And then it's a heavily densely populated urban country. So people are walking more, so they're walking by these arcades more. So when the US crashes, Japan actually weathers this and so when you look at how the US game market comes out of this crash because of a Japanese company Nintendo which is firmly established because of the stability of its own market, can now enter the US market.

AT: So speaking of Japan, where does Keiko Erikawa fit into all of this?

JD: So Keiko Erikawa is super interesting. So she is born in the mid-20th century and she accidentally becomes a big name in the game industry. She is now considered one of the richest people coming out of the game industry with her husband, whose name is Kou Shibusawa. So she doesn't even take on his last name, which is a big deal in a professional setting. So Shibusawa starts creating these games. They become accidentally successful and he's floundering with the business part of this and he's like, "oh wife, I don't know how to business" and she's like, "I got it." And so she takes over the business portion. She starts doing all the corporate paperwork. He's the face of it, but she is the powerhouse of that couple and she's recognized all over Japan for being sharp business acumen powerhouse. And she's also very aware that the game companies even in Japan were not were not meaningful and thoughtful about gender demographics as unique markets that they could serve. And so she starts this whole new company not of programmers and designers but of women coming out of liberal arts. I think it's called Ruby Party. And she brings them in, she trains them to the design aspect, she trains them to the computer science, because she's like, "it's much easier to teach a liberal arts person computer science than it is to go the opposite direction."

And they start with the publication of Angelique. The otome game industry, so otome games in Japan are games for young girls, so like 12 to 18 was the target demographic of that one. And it's all about coming of age and early romance and the opportunities that you might have to give up in order to chase other dreams. This is the genre and it defines this entire genre forever. So I think Angelique comes out in 1990, I want to say, and these games are still going strong in Japan. It's actually interesting and I want Carly to talk about this - so Erikawa comes out with otome games in this era saying like, "holy crap we are not paying attention to the girls gaming market." And in the US we're seeing something really similar with Brenda Laurel.

CK: So Brenda Laurel has a really interesting history because she actually starts working in the games industry in the late 1970s. She worked for a company that was making interactive fairy tales for computers basically, and it's like a tiny company, it's in Ohio. Nobody's heard of it. She had to go dig the name up, like it's this kind of obscure moment. But then she ends up going and working in Atari and she moves through the ranks pretty quickly and she actually has a pretty big producer role, production role at Atari. And then things start destabilizing. And so she goes to Atari Labs and so she worked in Atari's equivalent of like Xerox Park. She was the only woman that worked there. When they brought her in, she got there and they had been using the women's bathroom on that floor as a smoking lounge and she goes in and she's like, "so I work here now and I would like to pee sometimes in a bathroom so maybe..." And they all just start laughing because they thought someone had sent their wife in as a prank. And so I mean she talks about this very fondly so it's not like, "oh this was horrible," but it was just, that was the kind of environment it is. It was really homogeneous and it was really small in some ways. But she does fascinating stuff there, like there's demos on immersive theater systems she was conceptualizing, they didn't even have the technology for. And so they have actors doing things computers would, they would hope computers could do. And there's all these interview transcripts with Ray Bradbury about the thing because it was based on one of his stories. It's absolutely fascinating. So she goes through this. Atari kind of implodes. The industry was, and is, in the US pretty, it's got a lot of boom and bust cycles. And so she has all these stories about working somewhere and she's like, "I'm pretty sure I'm the person that turned the lights off there" at the end of the run.

And so eventually she works for Interval Research which is this think tanky, rich people pumping lots of money in to see what happens" kind of set-up. And she leads the equivalent of a \$5 million research project on why don't girls play video games or what would make girls play video games. And they get all these really, really interesting findings and some of these we actually still see borne out, like that girls tend to have less access to hardware. So they're playing less because they don't want to fight all the boys and men in the household for access to the game system. And as this is developing she's like, "no I think this wants to be a company" and

someone had told her there's this multi-billion dollar industry with an empty lot next door, why aren't we building on the empty lot? And this is similar to the red ocean versus blue ocean strategy that Nintendo talks about a lot. And so they end up starting what becomes Purple Moon. This is really a rush to market moment though, because Barbie Fashion Designer actually comes out just before this. And Barbie Fashion Designer is absolutely critically important to the development of the CD-ROM business, to the development of interactive toys and things like this and really starting to think about, how do you take physical play patterns and map them onto games. And there's all kinds of stuff about like maker culture and stuff here too, where you're using your printer to make doll clothes. But Barbie Fashion Designer happens. Purple Moon launches. Her interactive spins off of a sort of strange laser disc company, there's all these things happening at the same time. And there's really interesting responses around this, but the games themselves are very interesting too. But they often get dismissed because they're actually things girls want. And I feel like maybe a game that comes with a lipstick packed in is not going to win the heart of a middle-aged man who writes software reviews. And so there's a real disconnect between the ecosystem of the industry and what what these companies were trying to do.

AT: It seems like even today there's a sort of this sense that "girly games," like something like Candy Crush is a massive phenomenon, but it's bright colors and sweet things and so therefore it sort of gets dismissed by the "real gamers" - is that just my perception or is that borne out?

JD: No, this is borne out, and this is part of the casual game revolution. But you can in many ways blame the 1980s console wars. You can blame it on the SEGA, Nintendo, how do you open up space in the market that's dominated by one company? You start defining your demographic as another. So if Nintendo is the family game computer - Famicom - that's for young girls and young boys and parents to play with children and how we still see them market the Switch. SEGA does what Nintendo don't, and it was all about "the gamer" and "turbo charge" and "manly" and "more energy." And all of a sudden that takes off in the US and it defines what the gamer is in the US - not Japan, the US. And so it's playing into a type of of gender dynamic of consumption here. Once that happens and you get this idea of a gamer established as masculine, young, computer-athletic, like however they think through this. Where is the space for women? And so as you move through after that establishment, there's **games** for gamers, then there's casual games and there's story games. There's all these other marked categories of games of, "that's what other people play." That said, the ones that have the biggest market penetration are the ones that are designed for middle-aged women, because middle-aged women will play it and teenagers will play it and men will play it and older people will play it, because it is the most accessible and relaxing flow state around that demographic design choice. And Candy Crush fits into there.

CK: Yeah and you'll see interesting early glimmers of this too with stuff like Echo the Dolphin, which isn't designed for girls but is a very, extremely '90s aesthetic game that also, I don't know why dolphins are for girls but they are somehow. And it's that game is hugely successful. I think also worth noting is, in the US specifically, there's actually a long history of, girls and women spend significantly more on pop culture entertainment than boys and men do. So if your business model is selling to boys and men you're actually going after smaller wallets in some ways. So this is really true in pop music too, it's part of why you see the pop charts move the way they do - it's because of who actually buys music now

AT: I also read that Brenda Laurel is a pioneer in developing virtual reality, so how does that connect with this broader context that we're talking about?

CK: I think the most important thing to know about Brenda Laurel in some ways is, she is a theater professional in the games industry. So Jennifer and I edit this book series about influential game designers and every single

person in that series has a different professional background and then ends up doing game design. And Brenda Laurel comes out of theater; she's doing a PhD in theater and then drifts into the industry because there's money there. But she sees this as a really open, creative space too, and she's really enchanted by the possibilities of the technology. She writes a book that's published I think initially in 1991, early 1990s, called *Computers As Theater* that's still considered this landmark text of human-computer interaction. And I think part of why she's so important and so influential in HCI and in VR and all these interface designs is, she really thinks about these as narrative acts, that you need a beginning, a middle, and an end. If you push a button and nothing happens or there's no feel of completion, it's dissatisfying.

JD: Well, and embodied acts (KC: Mm-hm), like you can't just tell someone that they're a snake. They have to move like a snake, which is very theater.

KC: Yeah and so she worked on a project called Placeholder that was like an arts installation and it was based on folklore and Indigenous storytelling. But they actually got, I think at least one, possibly more patents for the interfaces they designed for this thing, because they were like, people want to be able to use their hands, and most of how VR uses your hands still is not great. And so they had developed this pinch system, so you moved your hand and you could grip things by gripping, and they actually put people on things like treadmills so that you could actually walk instead of just like, "I'm walking." And so that sense of, what part of something makes the fidelity feel high? It's not that I need to be outside, it needs to be that my body is occupying space in a way that makes sense to the story. So she does some incredibly interesting work about VR. I always think the hand thing is so interesting because that's also supposed to be the key for lucid dreaming, is if you can see your hands, you can control the dream. I have no idea if this is true, it's like "cultural knowledge that means this is true." But I think there is really something about that, about your hands being so key to your sense of being actually present instead of just being someone that's witnessing something.

AT: When you're talking about being embodied I know we're talking about like being immersed in the story and that sort of suspension of disbelief that is such a big thing in theater. But when you're talking about that interaction between using your body to play a game, in my mind that comes back to when we're talking about arcade games, something like Dance Dance Revolution or at home the Wii Fit where it suddenly became, "oh video games can be a way to get exercise and be physical." Did that come out of the VR or was it sort of evolving separately?

JD: It's co-evolving, I don't think it's coming out of any one thing. So how do video games come out? They co-evolve with literature and film and board games and all this stuff. So when we're talking about embodied games are we talking about VR? Are we talking about, me using a controller with my hands is still embodied. My body is still involved in it. Are we talking about immersive theater? Carly and I just went to *Sleep No More* and ran up and down four flights of stairs non-stop for three hours to like watch this narrative unfold, if we could keep up with the narrative - we're old. Or is it escape rooms? Is it geocaching, with a narrative structure to the geocaching? What do we mean when we're talking about embodied games? This is the other thing about games, is that they're just they're so big in what it encaptures because human beings crave experiences and we're good at designing those experiences for each other. And you think why we have to pay attention to women designers in this space is, if those experiences are always designed by men, you get a very particular type of experience designed into it. I'm not saying that those are bad experiences. I'm saying any experience is a reflection of a negotiation between a designer and a player and the material conditions of those.

CK: We see this in particular ways with arcades in the US, where you move towards increasingly family fun centers or hybrid, like Dave and Buster's-type businesses that have a very large square footage. But even before that a lot of arcade game design is actually about the ability of everyone else to watch you play. And

they actually call it, the screen that's running when you walk by an arcade machine is called "attract mode." That's what it's doing is, it's a lure, which is something we could even trace back to carnival games. But the games are really meant to be not just entertaining for the person actively playing but for the people standing in line to play, the people walking by. And as you see this movement in the '90s, the games get more and more performative and the form factors get bigger and more flashy because that's something that a game system in your home can't do right. We've all seen people play Dance Dance Revolution on the sad little pad in their house. It is not as cool or as impressive. You can look at a company like Raw Thrills, which is in the suburbs of Chicago, and all it does basically is make big, giant, dumb versions of things. They're pretty open about this, I'm not insulting their work. They're actually very excellent at the thing they do. But it's because they know that what they're doing is, they're competing on a floor for everyone's attention

JD: Right, and going off of Carly's point, what gets people out of their house and putting money into an arcade when they can download it to their phone - Japan takes that to a fidelity of input. So in the US we had Rock Band and Guitar Hero, which were really adaptations of Japanese arcade games at the time. But if you go to Japan in an arcade room, you've got Taiko Drum Master, where everyone's beating on giant taiko drums. Or you have the DJ station where you have turntables where you can DJ or guitar. So I think in the US, where we tend to see this as mostly in car and motorcycle games where they try to give the fidelity of the object, in Japan it's all kinds of weird fidelities like Luigi's ghost mansion, your controller is a vacuum cleaner. And so you're constantly scooting a vacuum cleaner and hoping that you don't hit your best friend sitting next to you

AT: s an american I'm just like that's a liability issue but...

CK: They have it here in most of the round one arcades will have it.

JD: Bringing Japan bloody noses to America every day.

AT: And when we're talking about video games and injuries, I'm just reminded of, and I was already sort of percolating this because when we talk about VR, more recently we've seen augmented reality. And we're talking about people accidentally getting injured because of a video game, all I could think of was Pokémon Go and all of the stories that came out of that because people were so intent on trying to like catch a Bulbasaur or whatever that they like tripped and fell or whatever. And I do have to point out that we have some women who weren't directly involved in video games specifically but they were involved in the creation of characters that we later saw in those franchises. So like Sailor Moon was created by a woman named Naoko Takeuchi and Pikachu, since we're talking about Pokémon, was created by a woman named Atsuko Nishida. And so what's interesting is that I feel like we've sort of touched on these different aspects of what makes a video game business. You've got the business side, you've got the science, you've got the computer programming aspect and you've also got the art. And so I'm curious if the art was sort of a way for women to enter this field because as you were saying it's easier to teach an artist computers than it is to teach a programmer art.

JD: Sure, and it's also interesting when you're bringing up Takeuchi, the creator of Sailor Moon, that we always think about Sailor Moon as, in the US we think of it as an anime first. It's a manga first comic book for the shojo girl market. So Japan's got three distinct markets for each gender. It's young, young children, shojo or shōnen, which is like fourth grade to 15-year-olds and then josei or seinen, which is for the adult versions of these binary genders. And so we tend to think in the US of all of these markets living discreetly. So there's the video game market and the cartoon or film market or the comic market. Those, even in the US are not discrete, but in Japan they're really not discrete. These are designed to be together. And so Sailor Moon has, and I haven't checked it, easily over 20 games I'm sure that have been developed from it. It's got a globally successful anime that comes from it, which then drives the comic book sales of it. It defines the aesthetics of shojo, not just for

the US, but adaptations of shojo aesthetics into western cultures where we're like "oh it looks so anime! Look, I've learned how to draw manga." It tends to look like this Sailor Moon era when it first comes to the US. It ends up being many young girls first 2d crush of Tuxedo Mask in english, where they're like "oh I love Tuxedo Mask, for reasons."

AT: Even though he's kind of a jerk. I'm just gonna put that out there and I'm sure I'll get hate for it but he was a jerk.

JD: And not a significant player. We've got five very powerful young women and then Tuxedo Mask who every once in a while is like, "dude, I'm here" and doesn't do much beyond that. So really if you think of Sailor Moon is like a 13 year old's wish fulfillment of what they think romance should be, that's Sailor Moon because that's the market it was going for and that's useful to keep in mind. So then it gets created into video games but the interesting thing about Sailor Moon and the video game market in the US is it's right at the front end of the Japanese cultural tsunami, like when Cartoon Network creates Toonami and starts bringing in all these things in the 1990s. Sailor Moon's right at the front end of it and so the fact that people might even like "Japanese cartoons" - everyone cannot see my air quotes but just imagine them - "Japanese cartoons" is already like a big cultural deal because up until that moment, everyone had tremendous cultural anxiety about Japan, that they were worried that the robots were going to get rid of all of the jobs. That they were going to buy up all of our baseball stadiums and I don't know, ruin sports ball for everyone. And all of these weird industrial tech anxieties about "oh, the Japanese people are buying up all of our factories and now they're going to like make it Japanese" - again the air quotes. So you're coming off of that 1980s anxiety, you get Sailor Moon in the 1990s. So now all of a sudden like these parents who grew up with that anxiety now have kids are like, "I love you Tuxedo Mask." The market's not ready for the video games at that moment. So they're doing very well over in East Asia, so Japan, China, South Korea, Southeast Asia, Thailand, it's doing very well over there but we actually don't see the game boom come over here until much later.

AT: As a child of the '90s I just remember all the shows were, I did love Sailor Moon, I will own that. But I just remember there being all of these Pokémon knock-offs. So we had actual Pokémon but there was also Digimon, there was Yu-Gi-Oh!, I'm sure there were others that I've just blocked out.

JD: Interestingly you're calling them knock-offs but they're actually part of a giant, already established genre there. And so Pokémon is the first one that gets big here and so it opens up the space for these other ones to come over. But Pokémon's another good one to talk about. This is not an accidental strategy to go multimedia. Pokémon releases on a Nintendo Game Boy (sexist name). The data storage of the Nintendo Game Boy doesn't have enough for a narrative to be embedded and for you to collect stuff. And so they release that and they know immediately that they have to release a manga and anime in order to provide it narrative structure in order to drive demand for it. So they release that and then they know that they have the narrative structure and a collecting mechanic in the game, so then they release the card game immediately. This is all a very integrated strategy for Pokémon and you're seeing them across all of these media. The fact that we get ones first and then we assume everything else is a knockoff is ignoring that Pokémon is coming off of lots of things that are happening around that collecting multimedia strategy. I think what makes Pokémon interesting, super interesting is, when it comes to the us it takes off among college students and that was never who it was intended for and so that drives a tremendous amount of consumption.

CK: I think an interesting point too is that this moment, like '96 is when Pokémon, the first game comes out is that right, Jennifer? (JD: Yeah.) That's also when Tamagotchi releases and so when you look at the US market, Tamagotchi does not get talked about as a video game in the United States, even though it is a digital game. And Rachel Simone Weil, who does Famicom Museum, has talked a lot about how there's all these digital

diaries and digital toys and things like that that are really popular during this period. So there's all these things about girls not playing video games, but it's partially because there's all these toys and basically handheld game devices that get split off and discounted. Because Tamagotchi is like a huge phenomenon.

JD: Right, which then lays the groundwork for Nintendogs, which then lays the groundwork for Animal Crossing if you want to talk about major player women in the game industry. look at Animal Crossing. It lays the groundwork for all of these care mechanics.

AT: That's what I was actually thinking of the word care when you mentioned Tamagotchi and it also made me think of you know they don't want to fight their brothers for the console, but nobody is necessarily fighting you to take care of something. That feels very femme-gendered.

CK: Yeah and this is actually something it comes out of, if you look at the games that Purple Moon did and I think they're quite beautiful actually. There's two series, they make at least one other game but I'm not going to talk about that one, not because it's bad, I just care about it less. But they make one series that's called The Rockett Games, and they're about a character named Rockett Movado, who's a middle schooler and she starts at a new school. Rockett's New School is the first game they release and those are all about emotional and social rehearsals, so you decide how to respond, you choose what Rockett's emotional response to things is and it changes the story. But you look at the Secret Paths games and these actually, I replayed one and it made me cry. I didn't play them when I was a kid, I was a little too old for them. But you go into this beautiful treehouse space and you pick a character that's like a paper doll and then you get taken into a little mini game. You finish the mini game and you get a story about the girl who's having a problem. And these problems range from "I got made fun of for playing ballet" to "my father has abandoned my family and we're destitute," the really wild range of real problems middle-schoolers or young girls might deal with. And then you're rewarded with an allegory or a folk tale that has some kind of lesson related. And they're so richly emotional and they're really about that narrativizing people's interior lives in a way that I find quite profound. But it's really a different feeling than people expect from video games. But a lot of it's about care, it's about how communities function, it's about how you relate to the world around you. And those games are about that very explicitly, but we see more games that do that kind of work over time - and certainly a lot of the games that I play and love - over the past 10 years. You think about something like Gone Home, which is I think in the legacy of those, even though it's a radically different kind of game.

AT: I mean that actually sounds like it's designed to teach people, like young kids, empathy.

37:30

CK: I don't think so actually. It's more about the self, so it's actually about practicing how you would react. So it's not about, how does this other person react? It's more like developmental or something. So like "oh, this person didn't invite me to their party - am I angry? Am I sad? Am I vengeful?" And so you're seeing, what are the social consequences of your own behaviors in a lot of the cases.

AT: Is it teaching self-reflection? Like it sounds like it's telling you to look inward and analyze, how does that make you feel? Which frankly a lot of adults could stand to learn.

JD: Be careful on assuming that games teach very linear things. We actually don't know what it's teaching or if it's trying to teach. We don't know what people are getting out of it. If you have children, any listeners, every single time you think you teach a child something, they somehow got something completely different out of it. So when I talk about games being a negotiation between a designer and a player, mediated by this material reaction or this material affordance, that's what I'm talking about. We don't know if what they got out of it is empathy, or that they got disdain, like "why would you ever react that way?" We simply don't know. We do

know that the more interiority that you give narrative-wise to someone, the more likely they will try to do perspective taking or social rehearsal.

AT: What does that translate to for those of us who don't know big words?

JD: The more they get insight into how someone else is thinking, so when we talk about interiority you're really talking about a narrator telling you what a character is thinking about what they're feeling, the things that we can't witness - they're part of their interior life. And so the more interiority that we get from someone, the more we understand what their actions are in terms of social rehearsal or consequences. And I think that that might be getting to what you were asking about in terms of empathy or practicing, but there's no magic bullet.

AT: Video games cannot solve psychology.

JD: Right, and Carly and I both belong to a collective called Learning Games Initiatives and it says right there in their motto, games teach multiple things in multiple ways and rarely what you think it's teaching.

CK: the number one thing a game teaches you is how to play the game (JD: Right). So if you need me to put a bunch of tetrimos together, I'm very good at that - like really good at it. I don't know what that translates to. I'm not good at packing, I'm good at a very specific thing the game has trained me on. It may or may not transfer and transfers always the hardest part, I could talk about that forever. But the main thing a game always teaches you is how to play the game, and people are very good at learning how to play the game. (AT: So those are the little blocks in Tetris.) Yep, they are the little four-piece blocks in Tetris.

JD: It's interesting also, the more narrative a game becomes, the more people who identify as gamers start dismissing it. When I teach early game designers how to think about games, I say books teach us about the interiority of a person, they teach us how someone thinks. Movies teach us about the action of a person, they show us what they do. Games show us the choices of a person and so you'll also get some of that, so if you look at a game like Ico. Ico's got a hand-holding care mechanic and they use it to devastating effect of needing to take care of this character that doesn't do anything other than be dragged around. But it's a very emotional game because it's all a care mechanic. And after the success of that one, and not financial success, critical success - it's a darling of game designers, not the market. But something that the market then adapted it to is The Tale of Two Brothers, which is again a caretaking mechanic. So you'll see these sort of feminist mechanics show up regardless of who's designing it, coming out of types of feminist theories of care.

AT: I've covered before on the podcast a lot of different areas like film or computer science, really there's a very long list that I won't get into. But there's a lot of fields where in recent history, people act like women being in this field is a new thing and they just can't seem to comprehend that women have always been involved in pretty much any industry, like pretty much any new art form, new technology, new type of business, there's usually at least a couple women that you can find from the very beginning.

JD: The ladies are coming! Look, ladies have been designing games forever. We've got Monopoly, we've got Candyland, we've got a whole slew of board games before computers even touch it. Women are there from right at the beginning of computer games as well. The problem is, and I think Carly touched on it, is that computer game narrative in the US is around this Atari narrative of a bunch of bros getting high in a hot tub, slapping ladies' asses. I wish I wasn't joking about this, this is what their culture was like. So it's this bro culture of "rock 'n' roll freedom males" that's driving women out. Women are coming in and being driven out and then some of them are spinning off their own companies. It's that they're being brought in for not the main role. like your Pikachu designer or if you go through the annals of any game company in Japan, I guarantee there's

going to be a chunk of artists and level designers that are women. Outside of just even these other things Japan's market is a different problem that they have a problem where most women leave the workforce after they get married and have children. They have to deal with this for many complicated reasons. But no, it's a self-perpetuating narrative. Games drive women out and then they're like, "there are no women in games - why?"

CK: We've seen this with film and there's been some wonderful feminist film history that like looks at, for example, "oh there aren't that many women directors early in film" but there were women editors that were absolutely reshaping the movies over and over. And so there was a reclamation project to be like, "by the way we should pay attention to film editors. If we're going to talk about directors we must also talk about editors" and suddenly we have a much more diverse pool of people to talk about. With earlier arcade games in particular, it's actually really hard to not talk about marketing, because so much of that is marketing. Because if you look at the screen, it's like four pixels in a trench coat that say they're a car. And so for many years Lila Zintner, who's at XOD, is the highest ranked woman in any games company right. And she's a VP at various points in a couple different things, mostly marketing and sales. But she's out in front of the media all the time, so when people are getting in arguments about game violence or something, they're often talking with her. And she's shaping what that public discourse is and when I started writing about her, I don't think anybody had heard of her. I found interviews and stuff with her in primary sources but I've never seen her mentioned in a textbook or anything.

JD: Yeah and it's also super interesting looking at those early times because there's also the designers like Dona Bailey's, is it 1983 is Centipede? (CK: Mm-hm.) So Centipede is the first game with AI, designed by a woman. She gets out, she becomes a professor, not even in video games, goes and becomes a writing professor because she's like "peace out." And we actually see that narrative quite a few times. But then a number of years ago, there were three notable events captured on Twitter that also helped to explain this. One of them is one reason why, the hashtag #onereasonwhy. Someone, I can't remember the person's name anymore, asked the innocuous question, why aren't there more lady folks in the games industry?

CK: It was someone at Kickstarter

JD: Oh okay. And this poor person now gets harangued by this hashtag #onereasonwhy and it's all all of this testimony of horrific harassment out of the game industry. When you read through it, you're just all like, "what is happening?!?" Shortly after that you get the Anita Sarkeesian incident, where she's Kickstarting her project on public discourse and people are making the game Beat Up Anita Sarkeesian and sending in bomb threats and haranguing her. Then you come off of that a little bit and then Gamergate starts and then you come off that a little bit and then I think it's Square Enix is called out for not having women characters in their games, to which their response was "women are hard to animate," which starts in another complete disparaging campaign. So it's not that there's not women, it's that there's systemic harassment that is tied to what the identity of what a gamer is. And so we can absolutely go in and reclaim these histories but these histories are short, with exceptions - Erikawa being an exception, Brenda Laurel being an exception. But they're short or they're tangential, like this marketing person, or I always talk about Yoko Kano in Japan who's a musician. Well-renowned and known and gets talked about in anime - also works in games and shapes the feeling and direction of games. But we don't know how to talk about these voices outside of like **the author**, which is really a gendered construction

AT: So I would definitely encourage anyone who would like to know more about those issues with video game culture to go listen to the previous episode that Jennifer and I did, I personally found it really fascinating and enraging. But what are some initiatives that the two of you are seeing or that you would like to see to

encourage women to enter the field?

CK: There have been some unionization pushes at companies and some of those have been successful. I think a huge problem in the industry is crunch culture, and you see this in startups more broadly too where it is a way of working that is just not compatible with many people's lives and obligations. Crunch culture is, we did such a bad job project managing that now everyone has to work 80 hours a week to finish the game on time. (JD: Good luck with your marriage). And that's normal.

AT: So the whole, "these companies are not run by adults."

CK: We're actually almost at the 20-year anniversary of the Rock Star wives letter, where a group of spouses of developers at Rockstar wrote an open letter about how horrific and and overwhelming the working conditions were. And so it's not secret, this is pretty well-known problems. So that's huge. I think the fact that that's becoming a little less normalized is good. I think also there are more, there's not many women, but there are more women in decision-making roles. Part of why you can get the Games for Girls movement in the mid-'90s is that you have women at that point who have 10 years of experience, who have the seniority to be listened to and that improves over time if we stop chasing everyone out of the room.

JD: I think other things are also changing. Games are professionalizing. There's still many stories about bro cultures, but we're now seeing increased number of people coming out of university programs or trade school programs going into games which, we're seeing a diversification. I'll talk about Japan really quick. There's been multiple attempts to identify opportunities for women to enter and be elevated. Nintendo does this, not as much as they should, but Animal Crossing being such a significant game. New Horizons is led by women. But when you think about how prescient Keiko Erikawa is, she put together a women team because she's all like, "I need women to be the dominant voices here." And you can even look at like, this seems to be a strategy that's working in Japan well, because coming out of games and going into animation, Kyoto Animation gets formed the same way, that they form Kyoto Animation out of stay-at-home moms who want to go back to work and they train them in animation. And now that's a powerhouse animation studio. And so that there there are things that you can do either changing internal corporate cultures or conscientiously setting up other forms of corporate cultures. We don't do that in the US because we don't treat games as companies in the same way. We tend to treat them as short-term software consultancies. So you see the rise and falls of studios quite often. And so it's a real big cultural difference there.

CK: There's a lot of worst of both worlds in terms of how games employment works, where it's the contract-based nature of other creative industries like film and television without the strong union backing. And so then you get like all the crunch and office culture of software but without the job stability. And so it's a weird, where it's neither fish nor fowl but something much worse.

JD: So yes, how do we get more women into the workplace in Japan? Many complicated ways, but they're expected to leave the workforce when they have a child because there's really no daycare in Japan. To be clear, how do they get back into the game industry? How do they get back into an animation industry? There's no pathway to re-enter. Like, now they're out.

AT: Join us next time on the Infinite Women podcast and remember, well-behaved women rarely make history.