SIGGRAPH Spotlight: Episode 80 – Storytelling Through the Power of Animation

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Welcome back to SIGGRAPH Spotlight. Today, SIGGRAPH 2025, Electronic Theater director Dawn Fidrick, welcomes four SIGGRAPH 2024, Electronic Theater contributors Toby Cochran, AdrianOchoa, Mo Mahler, and Bill Shannon for an enriching discussion about the world of animation and their wonderful works of art that will be showcased this year in Denver. Dawn, take it away.

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Hello and welcome back to SIGGRAPH spotlight. I am Dawn Fidrick SIGGRAPH 2025 Electronic Theater Director. Outside of SIGGRAPH, I'm an independent film producer and also the production team manager here at DNEG in Vancouver. The Electronic Theater is a qualifier for the Academy of Motion Picture Arts and Sciences. It's widely recognized for its groundbreaking contribution from artists, researchers, and innovators around the world today. I am thrilled to sit down with the talented panel of SIGGRAPH 2024, Electronic Theater contributors Toby Cochran, Adrian Ochoa from Luki and the Lights, and Mo Mahler and Bill Shannon from The Art of Weightlessness. Welcome to SIGGRAPH spotlight. Before we start our conversation, I'd love for you guys to talk about yourselves just briefly, a bit about where you've come from, how you got into the business. We'd love to hear a bit about yourself and your background. Toby, maybe you can start

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Sure. Hi, Dawn it's pleasure to be here. My background is a long story. I'll try and make it short. I've been in the animation game for nearly 20 years, working from flash back in the day to 3D animation to games to commercials to series and films, and then recently, over the years, creating Big Grin Productions. We're production vendor studio, and our simple mission really is to put big old grins on everybody's faces. What the work that we create, and we love working with clients and working on projects that have some sort of impact or social impact involved with the projects, just knowing that animation can make such a big impact on people's lives, and specifically children. So as if we if we make projects directly for children, then we want to make sure that we're very intentional with the work that we make. But my background started in animation, and then I transitioned to storyboarding, and was at a game company climbed the ladder there, and was creative director and different stuff like that. So I've played in kind of all arenas of the animation world, if you will. So that's a little bit about me.

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Fabulous. Thank you. And I should say Toby is the Director of Luki and the Lights. And how about Adrian, the producer of Luki and the Lights.

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Dawn first off, thanks for having us. So my name is Adrian Ochoa. I'm the producer of Luki and the Lights. So my journey into animation started a long time ago. I spent 17 years at Pixar Animation Studios. I actually started working in the mail room right after Toy Story came out. So worked my way up, and was there for 17 years. I worked in pretty much every department on most of the films. Within that time, after leaving Pixar, I joined Toby at a game studio, and one of the first games we did was with Shaquille O'Neal. We actually got the opportunity to go to his house and play basketball against them, and we won. There would be

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one we beat him. After leaving the game company, I worked in VR and AR for a minute. The studio Penrose did an animated short called Pardons Wake that did the festival circuits. It was the first VR film to in the line at the Venice Film Festival. And after leaving Penrose, I joined to be at Big Grin. I've been here for the past five years trying to bring those big smiles to people's faces.

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Terrific, amazing. Well, thank you for being here with us. And Mo, you are the Director of Art of Weightlessness. Did you take the traditional path as well? Or have you gotten into the business in another way?

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I have quite the untraditional past, probably. So my name is Mo Mahler, like Dawn said, I'm the Director of the Art of Weightlessness. I am faculty at the Entertainment Technology Center here at Carnegie Mellon University. This is a master's program, but I also teach a handful of animation oriented classes to our undergraduates at Carnegie Mellon as well. Before I joined Carnegie Mellon, I worked for Disney research for almost nine years, so maybe Adrian your and I path might have crossed somewhere along the way, because we collaborated with Pixar and Disney Animation and Imagineering. So that was a really fun gig. Yeah, I studied art and animation as an undergraduate, also here at Carnegie Mellon and I.

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Of course, have always been a creator in that space, and have dabbled between the worlds of production as well as research. And that's one of the reasons why I really enjoy my appointment here at the Entertainment Technology Center, because I can kind of go between all these worlds.

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It's good you have some flexibility to explore. And last, but certainly not least, Bill Shannon, the producer and starring in The Art of Weightlessness, tell us a little bit about how animation came to be for you.

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I'm not really an animator. I'm in performing and interdisciplinary live arts. I do choreography. I work for Cirque du Soleil. I've done a lot of commercial type work, doing choreography and performing. I've toured the world with five or six different independent group productions, as well as two solo works. I've had video installation work in the Tate Liverpool Museum. I've done live performance at Sydney Opera House, all over the world. Basically, I am basically a virtuoso of an invented form, and that form is a singular movement pattern. And that singular movement pattern was captured, motion captured for that work, and that's my relationship to the animation was really wanting that database, wanting that data to be harvested in a way that was private, that wasn't for sale, wasn't being commercially taken. And so that was important to me, and I that was interesting, and then seeing level of Mo's work. So that's my relationship to animation, besides loving to preform,

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It's a fantastic segue, because, as you pointed out, you're not traditionally in animation, but used animation as a vehicle and for expression. Was there a moment, or like an inciting incident, where you Bill realized that animation was the medium in which to tell this story, or talk a little bit about how you and Mo came to decide that this was the medium in which the Art of Weightlessness would be best expressed.

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Mo, you want to start?

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Sure, yeah, Bill and I kind of connected. He was doing an artist in residency at the studio for Creative Inquiry here at Carnegie Mellon, and our paths crossed because he was interested, like he said, in working with motion capture to kind of capture his movements. Right Bill has kind of invented this movement style. And at this time, I was still with Disney and kind of interested in working on something for myself. So a school of art professor Golan Levin introduced us to, like, see, see what you guys can make together. And so I was very interested in working on, like a me project at that time, something more for myself. And I saw Bill's art, you know, his movement, his videos, and it's just full of these beautiful arcs. And so I was very interested in capturing that data, doing something with that data. I didn't know what I think Bill and I met for a coffee or something to talk about some project ideas, and we talked

about his past. And Bill is a fantastic storyteller. That's what he's done at a really high profession level for decades now. And he kind of told the story of, like, how he grew up on crutches. And I was like, Oh, well, that's what I want to make. He was into it. He was always very supportive of kind of wherever I wanted to go with it.

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Yeah, I think when Mo approached me, when I was working with Golan, because I was, it was studio for Creative Inquiry, and I was there, and I was making wearable video sculpture, which is like a just a wearable video mask that were linked. So there's like two masks that you're wearing, and they are linked. So they can, you can record conversations and have them play back, and they, you know, in the timing of it, and then your real face behind it. So I was writing these dialogs where two people are talking and their public faces are also talking, and then they're arguing with their own public face and this kind of thing. And so I started talking to Golan about, hey, you know, I really want to include some elements of movement with this. And then he we started talking about different possibilities. And really, I was looking at it as a lexicon, like a tree of different how one move was a base, and it sort of built off of each other, into branches, into these combinations of moves. And so that's what we started out with. And then it ended up being like, well, let's tell the story, you know, let's tell the story of the so this because there's a gap. There's a gap in expectation. Oh, you're on crutches. You live on the crutches, whatever. But then you become a dancer into the world. Wait a second. How did that happen? You know? And so that's the story in a nutshell. Is that as a kid, you play on crutches, and then you go on this journey. And so I was right there. I was like, not really. I'm not a medium specific artist. I'm a concept artist. So I'm driven by the idea, and then I try to learn every media or any media that has any relationship to achieving the optimal expression of the conceptual basis of the project. So I'm willing to go wherever it takes to get that to the place it needs to be.

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motion capture was, was definitely right where I want, you know, right where I wanted to be, because I was also hitting that age where it's, like, if I don't record it now, but it'd be too old to, like, throw my whole body around one palm. You know what I'm saying? Yeah, seize the moment. Yeah, yeah. So there you go.

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Fantastic. I mean, that really encompasses the partnership and the collaboration that's really needed to create projects such as this. You know you're coming from different places, but you need each other in order to realize a piece of work, whatever medium that might be. So shifting over to Luki and the Lights Toby and Adrian, maybe you can tell us about, was there a moment where the flip got switched, or an inciting incident where this was this? Aha, here's what, here's the project we're going to make. We want to tell this story for this reason.

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Yeah, the story actually came from this awesome couple in the Netherlands, Sasha and Anya, so it was inspired directly by them and Sasha, the wife and mother, started designing this cute robot character with these giant light bulbs and in the joints. So when her husband, Anya, was diagnosed with ALS about six and a half years ago, they didn't have any way to explain it to their children. And at the time they they weren't able to find any resources back then to help explain to their children, and kind of explain what was going on with, you know, Daddy's body, essentially. So Sasha drew this robot character with these giant light bulbs in the joints. And then the kids could kind of fill in the light bulbs and follow along as the diagnosis was progressing and anya's body, and they could kind of visually communicate that to them. And then it just kind of picked up momentum in the Netherlands, where they're from, and after I think, a couple years, they were like being told from friends, hey, you should make this into a animated short film. And then from some friends of friends, they were able to find Big Grin. And their mission aligned with our mission. So we set off on that journey to help bring that story to life about three years ago now, but Adrian has a personal connection to it as well, and we had recognized that this story, obviously, this disease, is a very, very underfunded disease, has never been told before. Nothing like this has been done in animation, and this is the exact kind of projects and type of stories that we would love to be a part of.

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And Toby mentioned my personal connection. My grandfather passed away of ALS. In 1974 and usually when people get diagnosed, from what we hear is it's between three and five years before the person succumbs to the disease. But my grandfather got diagnosed, he passed away within less than a year. So it was something for me personally, it was something that I felt that we needed to share with the world and let bring awareness to this disease that a lot of people just know about it from the ice bucket challenge, but a lot of people do that, but they don't really know exactly what it's for.

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Both movies Luki and the Lights and The Art of Weightlessness draw on health related aspects, whether it's physical and in this case, ALS and degenerative hip condition, respectively. So you've touched on that a bit. Adrian, one of the motivations for you as a producer to work on Luki and the Lights. And maybe a question for all of you might be of films that you work on, does it ebb and flow between a meaningful piece, such as this, that addresses a particular issue, and then maybe you switch back to something that might hold a little lighter? Do you feel like you're hoping that viewers will glean something in particular by watching the pieces that you've created.

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I can maybe speak to the Art of Weightlessness a little bit. I think if you take the approach that, oh, we're going to make this story with this great moral that everyone's going to connect to you, kind of that's a harder approach, in my opinion, to connect with your audience. So I very much latched onto this idea of evolution through circumstance. I think this kind of one line summation of what I was trying to do with the story was this evolution of not just who Bill is, but his crutches along the way, and the way he learns to dance and skateboard and all of this evolves and latching onto that, I think it opened the door a little bit more for wider audiences, because we all have issues that we are dealing with, right? But I think the amazing thing about what Bill has done is there's such a tangible output, such a tangible artifact of his movement, that you can watch, and there's an experience to it that's quite beautiful. So connecting those two things was very easy, absolutely, being able to take something and build on that, whether that's seen as as a less than or a more than, I've often read about folks who may.

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One of their senses don't work as well as another, so they become a better listener, or whatever it may be. Maybe they're dyslexic and hard to read, so they are great in audio and Bill, it's a great example of how I was inspired by watching the film that you can overcome and even build on something that lots of people might view as a disability, right? You you turn that around into something else?

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Yeah. I mean, there's a lot of politics around disability. You know, as someone who is a part of the disabled community, who has represented the interests of disabled people globally, I would say that, you know, one of the things about my work that is probably most controversial is that I've constantly challenged able bodied people to question their assumptions or then really dissect the language around it. So even, for example, you say overcoming, but you don't actually overcome it like I live with a disability that is permanent. So I experience a spectrum of possibilities in any given moment. And so the spectrum that you experience as a viewer is the spectrum that's a public presentation. It's, you know, but I also have my private self that has other parts of the spectrum that I don't really stage. Like, how boring is it if I came out on stage and was, like, put some ice on my leg, you know what I mean? Like, so that's really important, that it's, it's both. It's not that one was defeated and the other one won. And there's a lot of ambiguity and disability. And I even learned that as an older when I got covid, I had a heart attack, and all of a sudden I have a disability that nobody can see, that I just have to avoid crowds and getting on planes, and I can't get covid again. So all of a sudden I have this like invisible thing going on that is really different from my experience being disabled from being on crutches. And it sort of educated me even to a deeper level of how years could are standing outside looking in, you know what I'm saying. And so inspiration is always going to be a part of every story. Hopefully, like a lot of stories, whether it's disability or not, are about inspiring to change, evolve, grow, realize, learn, absorb, and in that sense, you know, I think

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if you try to crystallize my messaging around disability, it's that, not that there's this magical or special or, you know, incredible thing that happened, but rather, we're like everybody else, and there's not a lot of division between these things that we confront in our lives. It's just that there are different

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parts of our lives that are challenged in that way. I don't know if that makes sense perfectly, but we're just trying to get that message out there that the ambiguity of it.

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I think one thing you said that really resonated with me is it's both often we think of lots of things in our lives as either or, but if you look at the perspective from both and, instead of either or, that can bring about some new ideas. Toby and Adrian, in regards to Luki and the lights, is there something that you're hoping that the audience walks away from after seeing the film? Yeah, I would hope they wanted to learn more and how they can help and reach out to all these organizations that are out there trying to help the people

that are affected by ALS. You know, whether it's doing the Ice Bucket Challenge, or whether it's, you know, donating some money, or whether it's getting involved in the community and just raising the awareness and letting people know that if you're affected by ALS, you know people you're being seen. And you know people know about it. And I have a very wildly ambitious goal from the film that maybe one day in the future, some kid will see this and be inspired to get curious and want to go and find a cure for this damn disease, and then the film and the character would never be needed ever again. Like that would be just an awesome byproduct of somebody seeing this film, and like Adrian said to also, you know, let people know, like people can go to the foundations that are part of this film, like globalnero, whitecare.org,

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to find out more information specifically about what they're doing and how they're using Luki and creating additional material for children and families that are focusing on families that are affected by this.

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What's scary is that we're finding out more and more that more people are getting diagnosed. So it went from something that doesn't really happen to now it's happening well.

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There's more visibility dialog. One thing that both films have did really well is being able to tell these stories in an entertaining and interesting way, visually, timing, sound, all the attributes that go along with filmmaking in any form, but in animation in particular. And that isn't always the case, right? You sometimes folks in.

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Tend on creating a film that has meaning, and it maybe preaches to the choir more than the people who really need to hear it. But both of these films really had an impactful and engaging experience as a viewer, and so I want to ask you briefly about your submission process into the SIGGRAPH 2024, electronic theater, and why you thought this might be a good venue for the group of people to see your project.

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I can jump in this. Kick us off, I suppose. Well, first of all, I mean, SIGGRAPH is always been one of those conferences and and also, the electronic theater has just been on my bucket list of submitting a film to and trying to get into over the years. Think my first SIGGRAPH was in 2004

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literally 20 years ago. And oh, it just did the math. Yeah, floods in. But I went to SIGGRAPH every year as a broke college student, and would just pack a hotel room full of friends, and we'd be sleeping on the floor and go to it, and then take all this kind of inspiration and info that we would would learn from the panels and the conference back to school and stuff like that. So it's always like, kind of been on my radar, and just like something that would be just incredibly an honor to to be a part of. And we also thought, like, like you shared with with our film, there was a message behind it. We did want to make it entertaining, and we had a we had our work cut out for us, because, anyhow, early on was like, kind of gave us our commandments, if you will, he's like, it has to have this worldwide appeal. There has to be no no language. It has to be medically accurate, it has to be educational. And then we're like, okay, and then we need to make it entertaining, because Mo, like, what you're saying earlier, as well as, like, if you just feed people their vegetables, and it's kind of being force fed down them, they don't necessarily, sometimes they don't necessarily find it, you know, entertaining, if it's just purely educational in that sense. And then the last request for Anjo was it had to be an Oscar worthy film, which we were like, Whoa, yeah, we could try and do the other things we don't know about that last one, but if we, if we put the right crew together, we pour our love into this, hopefully will be felt and seen and show up in the film. We've got a unique film in the sense that we also used, you know, at the Unreal Engine received an epic grant as well, so people are gonna be able to see something that's done in Unreal that we feel it hasn't been the style, the look of it doesn't feel like anything that's been been out there quite yet.

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I cried. I cried during this film. And I thought I'd never cry over a robot, but I did. So you were quite successful in being able to engage us in that way. Mo, tell us your thoughts.

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Yeah, sure. I think my first SIGGRAPH was 2001 maybe. So it's been a bit for me as well. But to me, like the highlight of SIGGRAPH is always the Electronic Theater. I've always held that to a really high bar for a couple reasons, especially now the way there's so many film festivals out there, I think SIGGRAPH still sets itself apart in a number of ways, especially because the audience at electronic theater are not just other filmmakers, but other animators and other researchers, and it's an audience that can really appreciate the medium and understand the medium in a much different way. And I think that's really amazing for a group of so many people from so many different disciplines to come together and celebrate a year of creation together again, it kind of hits that barn that no other film festival hits I think

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it's always special to be in the company of your peers and people who are doing work or pioneering work. That is, you know, you're trying to work out problems together. It's not a plug and play, sort of turnkey. And I think that is something that the audiences will glean when they see both of these films, is, this isn't, you know, a repeat of something, and that's what makes it elite in the electronic theater at SIGGRAPH. Another question, maybe a bit on the other side of things, can you guys talk a little bit about the production? What were your team sizes like? What was your timeline like? Was it an organic process that you brought the production team of artists, scientists, developers, you know, key people together, or maybe Big Grin has a staff that you usually work with. Maybe, if Adrian, you want to take this one first and and talk about that.

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Yeah. So our crew was about 110 artists from all around the world. When we were working this film, we pretty much call in every favor that we could. We reached out to everyone that we knew our.

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Say, Hey, like we're working on this awesome project, but funding was an issue for us throughout the whole production, whereas we were looking for funds, but simply got the epic grant that kind of kicked us off into the into making the film in Unreal but Toby's great person, in terms of getting awesome groups of people together and creating amazing teams that just gel together and work together and back together. Synergy, synergy, yeah, that's the word, yeah. And production took a little bit longer, one because, again, a lot of the people that were helping us actually have full time jobs, or we're doing that on the side, or as a favorite for us. But it took about two and a half years from when we kicked off the pre production all the way through fun production. Was there any in particular hurdles that you overcame? There's always unexpected in production. Best laid plans always have wrenches and things thrown in it, and that's part of the journey. That's part of the ride. We're all a little crazy to be in this business, but that's where we get our thrills from. I think so. I expect there probably are many. But if you had to choose one that was in particular proud of how you guys overcame it, or particularly noteworthy, please share it. Go ahead and pick one. Adrian, I think the glass was a big one for us and our unreal technical leads, Jimmy and Tim and Eli, they kept reminding us, guys, this is a game engine. This isn't a rendering engine, but we were pushing it to its limits, and what they did to make it look the way it did, it was just unbelievable.

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Yeah, the bulbs, it turns out like, you know, our characters got a glass case on his chest, and then there's a glass light bulb in there and in the back face of the glass. So our first kind of tests and things like that, the engine didn't know what to do with it, and then we're like, Okay, now that these light bulbs are in the joints, we need to have it actually illuminate. And then things were looking black, or they were just not working. And unreal is kind of freaking out with like, What the hell do I do with all this information and stuff like that? So it took us quite a while to wrangle that in and figure it out. And eventually we found an artist that was more on the technical side, and we were able to start writing blueprints and things like that, where before the way the light bulbs worked was there was a light kind of stuck in by the filament, and then they rewrote it to actually have the filament illuminate and light up, and then they were able to kind of dial in and be able to control the intensity of it illuminating. So, you know, moments in the film where it was needed for us to have that specificity and the control to dial in the light bulb filaments, we were able to eventually do that, but it was such a bear to wrestle with. It sounds like it was a perfect the mega grant is almost meant for some of that purpose, right? You're pushing the boundaries of the software. You're encountering these challenges, and then you're working together to find out you know how to overcome it

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exactly. Bill, might you talk a bit about, was there any part during the production process in which you were were you looking at dailies? Were you reviewing shots or versions of the film and thinking, Oh, this is exactly what I was hoping for. Oh, no, I don't know if this is going in the direction take me a little bit around the journey of what that creative felt like for you, especially being the key

subject.

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I think, the looking at the skeletal renders, watching the, you know, the points move. And part of that process for me as a dancer, you know, was keeping those little balls on the suit while performing on the crutches and not knocking them off, and they kept getting knocked off. And so some of the movement I felt like I had to be be happy with, even though it wasn't exactly what I would normally do, because I had to be careful. So it was like a little bit of carefulness involved in the dancing to keep the motion tracking on point. But it was also fascinating and very interesting, because I just recently got the full library of everything that we recorded, you know, because up until then, mostly it was like Mo looking at things, what do you think of this? What do you think of that? And we went back and forth. It was a very casual process, like the production was literally me and Mo, and then mo maybe had a couple people assisting him with rendering later. But as far as the capture process that was in the studio, and maybe one other person was there, I can't remember, but yeah, for me, I mean, I think with the production, that was the highlight for me is just getting in the studio, getting this, the capture suit on getting the shots in the can, you know, so to speak, and then being able to actually see even the rough skeletal renders of where the points were, was, was, really,

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was a good thing, you know, very good thing to see as an original movement form, to have that in the bag was, been valuable.

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And now, with all of the full footage, are you looking back through? You know, I don't know how many hours you've shot of motion capture. How many shoots there were during the process? Did you do some kind of pickups? Or was it all in one weekend? Let's say I think it was a couple weekends. I think we met like, two times, maybe two or three times. And had some capture sessions. I think that was it, like three times or so. But with the render seeing the renders happen, it was like, Oh, wow. You know this, Mo is very talented at pulling and making magic out of what we had. You know, really honestly,

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Talk about it, Mo, yeah, tell us about the magic that you instilled in, had you a vision of what you thought the animation might look like, or was, was that a product of the motion capture that came in, and then did it develop the style from there?

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I guess the process included, we started with recording, you know, it's a documentary, essentially So, and took that documentary kind of process to it. I'd set up a small studio with a few lights and a backdrop in my basement, and had Bill come over, and we recorded a few hours of Bill telling his story and in different ways. And like I said, Bill's just a great storyteller. So that was a very easy process for me, but then I edited that down, because it's animation, I added that down to maybe 15 minutes, and then maybe 11 minutes, and then kind of started arriving at what I thought the film might be. And the film, in its finality, is about nine minutes long. But then we went into a storyboarding process, as you do with animation. I try to teach my students that filmmaking is a very sculptural process. You know, you have to kind of find what you're making as you make it, and we do that through storyboarding. So I worked with a fantastic artist who did the storyboarding. Her name's Michelle Ma, and she was really helpful in exploring creatively what the visuals were going to be of the story, what we were going to invest in, scope wise. And went through several iterations of the storyboard, and then we went into the mocap studio here, and so we have a motion capture lab here at Carnegie Mellon. And that's when we marked Bill up, and really just did a bunch of really interesting takes, some really just exploratory movements that Bill does that are you just very expressive to like, oh, well, we need this shot because you say this thing at this time, you know. And so we collected a whole gamut of footage there. But beyond that, the film is a collage of animated styles. We have, obviously motion capture, but there's handcrafted animation and rotoscoping and simulation and motion graphics that included into the animated styles. And so one of the first things I want to do with the film is kind of prove the pipeline and prove that the story is going to work in a in a way. So there's a sequence in the film where Bill is I call it the imagination land sequence, where Bill is describing what it's like to be a child and playing with his brother and his crutches are, you know, a gun and a spear and grabbers and things like that. And that was just like a really fun set of lines to play with. And you weren't going to mocap that kind of stuff, right? So we were going to hand animate that, and I needed to make sure that fit well with the motion capture, and that those two things felt seamless in service of the story. So we made that first, we kind of proved the pipeline there, and then, then it was just like, you know, a lot of heavy lifting to finish the piece from there, I would say, kind of knew what we were making at that point.

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One of the things that was happening, I just wanted to add this, during this, this atmosphere right now was Fortnite was stealing, like

Fortnite was like taking these dances and like putting them in their emotes without crediting the dancers and the choreography and the artists behind who were picking them. And so for me, it was also like doing the math around that and feeling a sense of urgency, you know, like the haptics and everything with those movement patterns, but also just that, once you have it, then it can't be, you know, like there was a lot of monetizing around crypto as well. Like the dancers were selling their, I want to say ETF, but I'm thinking of the wrong thing. But anyway, they were selling their movement like nfts. NFT Thank you. I said, ETF. I was like, it's nfts have been dead so long I forgot

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it's all good. That's how dead they are. Okay, when ETFs gonna be a lot better for a long term field. So ETF, not NFT, yeah. Anyway, all I'm saying is people were dancers, were selling nfts of their dance moves and trying to monetize that. So while this was happening with the animation, my big motivation was like, capture mine as separate. Don't let it get commercialized, because I'd worked with Cirque du Soleil, and so there's already a big deal with them where they're using my choreography in a touring work. And so that's my intellectual property.

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Be that I sold to them exclusively so they can't take my act and, like, put it in a different show. They can't take my choreography, or my use of the crutches in the way that I choreographing them, and just and sell it and use it somewhere else, in some other act. And I was realizing at that point, because I am truly, like, singular in what I do, that that had to happen. And so Mo just came in there. I was like, yes, you know. Like, let's get it done, you know. And so, so I just wanted to add that, that atmosphere, the political and sort of the business thing around choreography and dance and ownership and recording the patterns of that and all that happening right? Then it was like, really hot, like, Fortnite is getting sued, and, you know, like,

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do the Dougie, but don't do it digitally.

35:44

There's always a balance between art and commerce, especially when you're digging deep into, you know, what all of you as filmmakers are looking at. You're looking, you know, into really impactful, meaningful subjects. We are in this to make art, but we're also in this as a business, I don't want to speak for you, but that's a hard and challenging or having to be ever vigilant about where your ethics are and where you want things to go or not to go, and maybe some unforeseen challenges for you, Mo to make sure that the data was protected. You know, I'm guessing you didn't enter the relationship knowing all things we never do at the beginning of any project, and that kind of flexibility and fluidity that you need to have in order to kind of get to the finish line.

36:34

I want to stay and talk more, but unfortunately, I have one more kind of question for you guys, and then we'll look to wrap it up. But I think the audiences will be impressed by what they see. Whenever you finished a great project, everyone always wants to know what's next. What are you going to do next? Where are you breaking the mold now? So if you can talk about any of your future projects, or how you feel like SIGGRAPH might be of a benefit in building relationships with folks at the conference, or some things that you're looking to learn at SIGGRAPH. Any one of those things, that's maybe three questions there. What's your next project? What are you hoping to learn at SIGGRAPH? And are there any innovative computer graphics or interactive techniques that you're hoping to discover that you can use for your next show? Maybe I'll ask Adrian you first,

37:32

So I'll answer the first one. What's next? So we probably, myself, have been developing a few original ideas, original IP so we've just been working on that till we find another project to jump onto. All right, great, original IP is a good way to go. Lot of producing ownership there. Toby, did you want to add anything?

37:52

Yeah, and we're, I mean, we're super excited about our own IP, like I feel most probably vendor studios are, because it's great to obviously service different projects and things like that, but everybody's got their own stories to tell, and we just want to tell stories that are not being looked at or being told and things like that. So for me to grow the team and to grow other directors and help them

tell their stories is something that I'm very passionate about. And you know, if we're lucky, we can connect with a studio one day to do this. Or, if we're even more lucky, we can win the lottery and just do the damn thing ourselves. And I don't have to worry about some executive in a suit telling me how to how a character should interact on a screen or whatever, right? That's kind of like ultimate long term goal of some of our stuff, and then we'll see what where it takes us from there. And Mo,

38:45

I just finished writing a book called animated design thinking. I'm in the process of revising that. It's largely based on my curriculum and design processes that we can learn from the animation industry. Beyond that, if you're interested, come studying with me at Carnegie Mellon, the Entertainment Technology Center is a graduate master's program. And I also teach courses at the undergraduate level, animation related courses, and this summer, running a pre college program called National High School game Academy.

39:15

Sweet Bill, are you going to be taking some classes with Mo?

39:20

I just met a hardware coder here in the city, just randomly and started. We're still, we're starting to work on the next generation of the wearable video sculpture. So that's what I'm working on independently. You know, we're talking about commercial directions, versus just keeping it theater and performance art and that kind of thing. And, you know, I live on a farm. I'm raising my kids and living day to day. You know, that's my future. I don't know about SIGGRAPH. I did one time I was dumpster diving and I found a SIGGRAPH video from 1987 and it's amazing how far it's come. It really is,

39:53

Was it a VHS? Bill, yeah, it was a VHS, yeah. I like VHS. I have to look at it like I have to. It back and see what's on it. That's fun. The label actually had like little graphics on it too. It's SIGGRAPH graphic right on the label.

40:08

By the way, I can remember SIGGRAPH deadlines mailing in VHS tapes to be reviewed for the animation festivals.

40:19

50 years, 50 years it was celebrated, and this is off to the next 50. So if there was a mail in in the original 50, what will be the future? Maybe it will be the wearable sculpture. Maybe somehow we will submit through, I don't know, Bill, that's the challenge I have for you.

40:37

I find that VHS, I'll definitely turn it over to you.

40:42

Amazing.

40:43

Maybe it'll be like a neural link or something in the future. Mo, real quick. Does your program require students to have internships or anything like that? We're always looking to team up with schools looking for new talent and things like that.

40:55

Yeah, it's not required, but it's absolutely a big part of the program. It's a professional master's program, so part of the curriculum is

you have the option of going on a co op for a semester and as part of your education. So absolutely, yeah, let's connect. For sure, that'd be great.

41:11
And thank you all for joining us for this episode of SIGGRAPH spotlight. We can't wait to see your hard work on display at the SIGGRAPH 2024, Electronic Theater in Denver, be sure to visit s2024.siggraph.org.

41:27
To secure your registration and electronic ticket.

41:36
Thank you to dawn and our wonderful guests on this episode of SIGGRAPH spotlight. SIGGRAPH 2024 is right around the corner, taking place July 28 through August 1 2024 in Denver, visit s2024.siggraph.org/register.

41:53
So you don't miss out on Luki and the Lights, The Art of Weightlessness, and plenty of other exhilarating content at SIGGRAPH 2024

42:01
Until next time!