Alison Dean (00:09):

TheoremOne is the leading innovation and engineering firm for the Fortune 1000. We design, build and deliver enterprise-scale technology solutions and are very excited to present The Breakthrough podcast, an ongoing series where we interview technology leaders to share their experiences and perspectives on what's next in tech.

Alison Dean (00:37):

Welcome to The Breakthrough. I'm Alison Dean, VP of operations at TheoremOne. And today we are talking with a very special guest, someone I've known for 15 years. Jon Snoddy is currently the executive senior vice-president for the Advanced Development Studio at Walt Disney Imagineering, and he's also worked for NPR, Lucasfilm, and GameWorks. If I were to reflect back on my time with Jon at Big Stage Entertainment, way back when, I can recall that he was always sitting in this really big chair, and I don't think he had a desk, or if he did, he definitely never used it. And it really makes me smile to think about that and our time together. After Big Stage, I went on to work with Jon at Disney, and I look back on that time very fondly. He sent me his favorite quote, which we will discuss. "People will do what you pay them to do." Hi, Jon.

Jon Snoddy (01:32):

Nice to see you.

Alison Dean (01:43):

It's nice to see you too. What does that quote mean to you?

Jon Snoddy (01:36):

It means literally what it says. If there's something you want someone to do who works for you, you probably ought to let them know. And guess what? They'll do it. It's amazing how often we assume people will read our minds, that what is in our heads is in everyone else's heads. And it's not. That's just not true. So we find often there are these disconnects between what a leader hopes is going to happen and what the person working with them is trying to accomplish. And they're misaligned because they're just not communicating. I believe strongly that you ought to tell people what you want them to do, that you should talk about it. It should be very clear. The people on a team should all know where are we trying to go? What are we all trying to do? Because I find that when you do that, it's amazing how people kind of want to get on board. They want to succeed.

Jon Snoddy (02:26):

And so knowing what's important to the leader is probably a good thing. And again, it's so obvious. I know that's just so terribly obvious, but in fact, it is amazing to me how often I talk to people and realize they

have no idea what this leader wants, and this leader has not communicated in truth anything at all. And it's easy just to think that whatever my priorities are are known to the whole team, but it's not. It's really easy for the whole team to be completely misinformed. So if there's something that's important to you, you ought to tell them. If there's something that's really important to you, you really ought to tell them.

Alison Dean (02:58):

I mean, I certainly can think back on a good handful of instances where leadership certainly didn't convey what they were looking to achieve as clearly as they could have. Can you talk about what the day-to-day looks like for you now and perhaps how that has evolved through the years since you've been at quite a number of interesting places?

Jon Snoddy (03:18):

Well, day-to-day now is completely bizarre. I refuse to have a home office. So I work all over the place, in the backyard, on my boat. I'm in the kitchen today. It's kind of strange to be working from my house. That still hasn't become completely normal to me after a year of it. My role, I think of it as a very social role, one that I don't do much anymore. I help teams think through what's important and get stuff out of their way so they can get things done and kind of steer them where appropriate. But as far as actually making things... Like when I first started out, I made things with my hands, and then you get to make things with your brain and you work on ideas. And then you work with bigger teams, and the work in a sense becomes more and more abstract as you move through a career. That's certainly been the case for me.

Jon Snoddy (04:05):

I used to do tons of half-hour meetings with people, either in a conference room or in various places around my company. Now I do half-hour meetings all day long with people sitting wherever I'm sitting. Really it's just talking with people about priorities and values and how things are going and commenting on the work sometimes, but mostly commenting on the vision that drives the work to make sure that people are working from a vision and make sure that people are thinking longterm. And that's been the case for me for several years, but it wasn't always. That's what my world is like now.

Alison Dean (04:41):

What is the Advanced Development Studio?

Jon Snoddy (04:43):

The Advanced Development Studio, there's Disney Research, which is a research organization. Everybody has a PhD. They do scientific research and publish papers. And then there's advanced development, which is the directed research counterpart to that, or the development counterpart to that. And what that group does is takes emerging technologies and turns those into ideas for theme parks and cruise ships and resorts and interacting often physically with people. And then I also lead the Ride Studio now. So it's

the team that designs all the rides that go into Disney attractions, the show technology team, so that's the audiovisual systems and projection and special effects. And then there's a group called the Tech Studio, which does all the software and tools across Imagineering.

Alison Dean (05:28):

Did you think that you'd be doing what you're doing today when you started your career?

Jon Snoddy (05:32):

I have never thought of myself as having a career. You can do kind of a backward pass, and I can describe everything I've done and make it sound like a career, but trust me, there was never a plan. There was never... I've always referred to it as following shiny objects. I mean, early on, I think what drove me was I wanted to work with great people and work in companies that did things that were... important might be too strong a word, but certainly lasting and interesting and of high quality. I don't know that I ever really thought much about what I would do as a career.

Alison Dean (06:06):

So interesting.

Jon Snoddy (06:07):

I just did the next thing. And by the way, when I advise people, I don't advise them to do that. Maybe I should. I usually advise them to be much more structured in their thinking, but I can't say that I ever was.

Alison Dean (06:18):

So you've been working at home for a little over a year now. How did COVID ultimately affect project prioritization for you and for the company?

Jon Snoddy (06:25):

Well, a lot of the things we do are physical. Our way of doing research and development is through just trying to build things. You start with a premise. You start with a thesis, and then if we all talk about it, and if we all agree that that seems like an important thing, you get some money to go off and work on that a little bit. And if it seems like you're right and heading in the right direction, then you get more money to go build something. And that's a big thing, is we try to take that idea and build it, actually try to make it happen. And we find that as we do that, the research topics emerge from that. The unsolvable problems go back, and we start thinking about those again. Well, that building process meant that we didn't have access to our shops. We have wood shops and plastic shops and electrical shops and machine shops, everything you can think of, and all of that was just switched off. And we had these brilliant people that are great at fabricating and building things that were going, "What do you want me to do?"

Jon Snoddy (07:16):

It's a highly self-organizing group, the Advanced Development of Disney Research, they are. And they really just started finding ways to work from home and divided up the tasks. one of our project managers likes to sew, so she became this seamstress. We were working on masks. Our CEO had asked us to think about how we could do masks that were more comfortable. This is in the early days when masks were this exotic thing that everybody talked about. And so somebody started sewing. Someone else started assembling things. Another person was forming plastics in his garage. And another one had a few machines in his garage and set up a machine shop. We did 3D printing. We took a couple of 3D printers to people's houses. And then they would use Uber to shovel their parts around LA to make things happen. And it was incredible that just suddenly we were up and functioning again.

Jon Snoddy (08:05):

And it was so cool just to watch this self-organization take place. I didn't tell people, "Hey, you go start doing these things." They are the kinds of people, and we have the kind of organization, where problem-solving is just what we do. And so they applied it to themselves, and it was incredible how productive everybody became instantly. So we had to do that, and we've had to figure that out. The other piece we had to figure out is the social side of what we do. We like each other. We hang around together a lot, and we do a lot of parties and things. And so people have had to do the same kind of self-organizing process to figure out how we kind of stay connected to each other socially. So we do a lot of parties online, and in the mail comes a drink mixing kit, and then it turns out we're having a party where we're all mixing drinks and-

Alison Dean (08:48):

I love it.

Jon Snoddy (08:48):

Comparing notes and having fun. And it's not the same as being there. You can't live a temporary life. You can't be sitting there thinking, “Well, I'm not going to do anything because I want to wait until it gets back to normal.” Your life will just go by because there is no more normal, and there is nothing like that. What you have is what you have. Deal with it. Do something you're proud of.

Alison Dean (09:09):

So we had Megan Prichard on the show, and she is the global head of autonomous ride-sharing at Ford Motor Company. And she wanted to ask you this question. How are you thinking about Disney experiences in a post-COVID world? And I think it's not only how you're thinking about it, but also Disney as a whole. What does that philosophy look like?

Jon Snoddy (09:30):

The company was startled by how perfectly fine-tuned this was to attack many of our businesses. And we are a company that until that moment had thought of ourselves as a diversified portfolio of offerings that in times past had really been resilient to changes. Something would happen at one end, and the other part would carry it. But this was something that was so crafted exactly aimed at many of the things that we do. Certainly, everybody's looked at that. You've seen us do this major pivot into streaming, and that's been pretty cool to see how we show up as a streaming company. And at first, it looked like a struggling theme park company is trying to get into the streaming business, but then quickly it flipped when people realized oh, those are the best content producers on the planet, and they have the biggest brands on the planet. Oh my God, this is brand and content juggernaut is now the big hopeful in the streaming business. And we've seen that really turned around and people's perception of the company.

Jon Snoddy (10:28):

And then now we're seeing as the theme park company is just starting to come back, we now announce a reopening of Disneyland, and we're seeing tremendous demand for that. So I don't know that things are going to snap back instantly to where we were, but if you talk to people, they're really tired of being in their houses, and I think people are going to be pretty eager to get out and find anything that can do with their families. And so that's probably good for our businesses. That said, we need to diversify further. We have teams that are working on a number of ideas around that that will build from our strengths, our brand strengths, and our content development strengths and our values and allow us to take those to other venues. I can't talk specifics about that stuff.

Alison Dean (11:09):

I didn't think you could, Jon. All right. So where do you look for inspiration in your creative process? And maybe in your creative process before all of this and now post-COVID, has that shifted at all?

Jon Snoddy (11:26):

Well, I think like everybody, I need to get things quieted down to really reflect and force myself to think about a problem. I like to take a problem and try to build sort of a presentation around it that forces me to think about how I would talk about it or think about it, at least in my head about what is this thing and try to find the essence of a problem I'm trying to solve or just be quiet and think, to attempt to put unlikely things together and attempt to put surprising things together, things that shouldn't go together. I like to do that as just thought exercises, and inspiration is from reading and from sailing and from driving around looking at things, talking to people. We do quite a lot of talking about ideas with people that I work with, that I think are very creative people. And ideas come out of that that we go off and build on.

Alison Dean (12:13):

Right. What design or IT solutions have you come up with in your career that have excited you the most?

Jon Snoddy (12:21):

A long time ago, I was asked to think about a simulator solution for the Indiana Jones property. And I like simulators, but I find them to be claustrophobic a little bit. And I thought could you actually go somewhere in a simulator, use a simulator to kind of enhance an experience? And so we started playing around with simulators and came up with this idea of a cheap ride that would tumble through the world. At the time, we thought of it as this free-ranging thing. And there was a moment where we said would it be possible to actually take those simulator motion bases and actually put that on a vehicle and drive it around and synchronize that with a story and with the environment that you're in. And that became the Indiana Jones attraction at Disneyland. That was kind of cool to find out that we could actually do that.

Jon Snoddy (13:04):

More recently, I've spent a lot of time personally thinking about artificial intelligence at large as to things that that can do for us. And we've been doing quite a lot of work on using AI to control characters, to create a character personality that you can talk with and interact with very directly. We'll be making some announcements about that very soon, but that's been kind of astounding to see that emerge. It really hasn't been that long. Speech used to be such a clumsy, awkward thing. We've had speech recognition for what? 25 years? 30 years? A long time, but it's just been terrible. And then machine learning came along, and suddenly it feels like a light switch happened, and it's useful. And every time we say the word Alexa, things all over our house wake up. They're always listening.

Alison Dean (13:54):

A little scary. Ron Glickman was also on the show recently. He is the CIO of Trader Joe's, and he had this question. How do you contemplate social justice and equality for all in your design process in 2021?

Jon Snoddy (14:09):

For my company and for my teams and for myself, it's not quite social justice, but I believe that if I want to create things that are meaningful to people, I need those to be created by the people there'll be meaningful to, that my team should look like my audience. We work very hard to make that true. And so that's the first piece of it, is to make sure that the people that I work with and the situations that I work in are truly equal to all and that there are representatives from all the people that make up our world in meaningful roles within that and that people are listened to and that they believe they're listened to. That to me is sort of the foundation. I've mentioned a few times that the groups that I work with are kind of self-organizing, and they have a lot of autonomy to propose new ideas and to push us in directions that are meaningful to them, and they're encouraged to think that way. And so when you have a world like that, and then you populate it with the right people, I think you have a good chance at a just world emerging from that, much

more so than if from the top down you start saying you will be just, you will be this or that. It's better when it is just baked in.

Alison Dean (15:19):

In a conversation with everyone. What has been the biggest project that you've spearheaded?

Jon Snoddy (15:27):

Certainly GameWorks. That was kind of a big deal, especially at that moment in my life. I mentioned the Indiana Jones project. That was a pretty big one. What we're doing with AI characters I think may very well turn out to be the biggest thing that we do, because I do think that we're on the edge of a fundamental change. I think back to the early 90s, 3D computer graphics was an emerging thing. We knew it then as something you use for like scientific visualizations and on the 7:00 news, the flying logo that would come toward the camera. Nobody thought of that as a storytelling tool. Everybody thought of that as just this thing you use for graphics and stuff. Pixar, among others, but Pixar especially was a team of visionary scientists and artists that really believed that it could be. Ed Catmull from way back in the 60s was imagining making films with computer graphics, back when it was just wireframe stuff.

That's visionary. That really is, to be able to see that far into the future. And they made the film Toy Story and a switch switched, and it was suddenly completely obvious to all of us what this was for, that it was in fact a storytelling medium, just like film, just like everything else, and an industry was born. And I think that the use of artificial intelligence in storytelling will be a similar thing. Five years from now, this will be completely obvious, and everybody will be doing it, and everybody will imagine that they've done it forever that way.

Alison Dean (16:51):

It's been here all along. I recall when I worked with you at Disney, we were working with certain outside consultants. So the strategic decision was made to leverage outside entities instead of bringing things in internally. And so I'm wondering when do you need to bring outside in vs create a new department or what have you?

Jon Snoddy (17:15):

I operate under a kind of principle that if someone can do something better than me, they probably should do it, unless it's something that I feel like I really must get better at myself, but I can think bigger if I can get other people excited about my vision and I can surround myself with people that are very different from me that have different skills from me and I could do things that I could never dream of doing by myself. You were talking about career trajectories, and that's one of the sort of realizations you have as you kind of grow up. At first, you're trying to do everything yourself, and then you start to realize wow, when I'm with this person, suddenly the ideas are better, and when I'm with this person, we get stuff built, and when I'm

with this person, we actually meet our deadlines because she kicks us in the butt and makes us, Alison. And you learn to surround yourself with people that are better than you at particular things.

Jon Snoddy (18:03):

And it's the same thing with companies. There are things that you must do yourself and must have a great deal of control over, but then there's a lot of stuff that's really just plumbing that unless you're in the plumbing business is not necessarily your core and where you're going to have success. So you might be better off finding somebody who loves that, who's great at that, who lives to do that. And we do that a lot. We're always thinking about what should we do inside? What should we do out of house? We're not doing speech recognition at Disney, because there are companies that are spending a billion dollars a year on speech recognition so that they can rent it to people. And so if it's available, then you can just raise your hand by speech recognition from multiple companies now. So there's no reason for us to duplicate that. It exists just fine. So that lets us move up a notch and say all right, what would you do? Let's just assume that technology exists. Now, what's your big idea? And then as other stuff fills in around that, you get to keep moving up. You have to maintain some things that you're good at, but like I said, having partners and collaborating lets you think bigger.

Alison Dean (19:05):

I like it. Okay, so we're talking about AI as something that's transforming all of our Disney experiences that we've yet to see. Are there any other technologies that you're excited about or anything else that you believe is going to be a transformation for Disney?

Jon Snoddy (19:21):

I believe that autonomous vehicles will be important. When we build a resort, we're building a whole city. It's incredible. You go to Florida, we generate power, we treat water, we maintain roads. There are big cities you know of that have smaller bus fleets than we do. They're kind of background things, but they contribute significantly to the experience that we offer to people. And you want that experience to be frictionless and seamless. And there are spots where it gets bumpy and you feel a lot of friction and stuff. And transportation is one of those that we're always wrestling with. It's a hard, hard problem for cities, for big theme park companies, for everybody. I think that our teams do a good job with it, but I think that there will be autonomous vehicles peppered throughout that. We've talked about the amount of time when you're working on something and realize oh, I'm out of tape. I need a roll of tape. And I guess I'll walk back and get in the little thing and drive over to the shop and get another thing of tape. But imagine being able to say, "Can you send me a roll of tape?" and a little cart shows up with a roll of tape.

That's a somewhat silly example, but that kind of thing will happen pretty soon. And we've done tests in building like a grip cart that you'd load up, and it would follow you over to where you're working. And then when you're done, it would go back home. And I think things like that will happen pretty quickly, but I think

also we've done a number of experiments with little smaller shuttles that shuttle people around and everything, and I think that we'll have driverless versions of those. I think that'll be an important part of the experience in a few years.

Alison Dean (20:52):

I actually can totally envision that, especially for Disney. And I almost think that I'd be more comfortable trying that out with Disney than anywhere else. I was actually talking about this with Megan Prichard from Ford, what the autonomous vehicle experience really looks like, and the trust factor that really is involved in that whole scenario for all of us. I think inherently people trust Disney. We go to an amusement park. We go on some crazy roller coasters or maybe just go on the teacups, but we're still trusting Disney that we're going to be safe and have a good experience. And so I could definitely see myself trying, or at least being excited to try, a driverless automobile at a Disney park. It's interesting to think about. Okay, are there any projects that you can look back on and think that you miss the mark in some way?

Jon Snoddy (21:43):

I tend to be fairly optimistic. I think that's an important part of my personality that I would never want to lose because it allows me to get lucky. And if you don't get out there and try things, you don't get to get lucky. And there have been moments where that's gotten me into trouble, where I've tried things that just turned out not to be possible or turned out to be a lot harder than I thought they would be. That's kind of part of it. You have to be ready to fail every now and then. And hopefully, you build a structure that allows you to fail quickly and move on. But I without question have been overly optimistic about things and had to rethink.

Alison Dean (22:21):

In your time so far at Disney, have you had to innovate an experience because you thought it was outdated or other people thought it was outdated?

Jon Snoddy (22:29):

In one part of my job, that is the center of my job. About five years ago, we looked at the way we were building theme parks and set about reinventing how you build things. And mine is a company with a long tradition of excellence, brilliant, brilliant people, truly the best in the world. When you look at Disney artists and craftspeople and everything, that's as good as it gets. And so when you walk up to somebody like that who's the best in the world and you say, "Hey, I've got a better way to do what you do"... And you probably want to do some preparation before you have that conversation, but we've worked to introduce tools that preserve the artistry and take out some of the chaos. We would find things where one team enters things into an Excel spreadsheet, and then another team takes that Excel spreadsheet and hand copies all these numbers over because the cells don't match. And in the early days, there was just easy,

low-hanging fruit like that that people would just go, "Oh my God, you're a genius. This used to take us a week, and now it takes us zero time because it's all one thing."

Jon Snoddy (23:29):

But other things that are much more significant. We started doing pre-visualization where we would build a computer model of something as mostly kind of an art process, a concept drawing process. And so the company does a lot of this concept art, which is essentially paintings of a feeling you're trying to evoke, what it's going to feel like to be there. If you zoom in on the painting, there's nothing there, but when you zoom out, you go ah, again, yes, that's what this thing's going to be. And then we started doing those in 3D, but it was really the same concept process. But over time we have started to build tools that allow us to start building in 3D from the very first idea. The goal is to allow every decision that you make to have that stick and to allow the designer to see their work in the context of everyone else's work. You can imagine that building a theme park, it's thousands of people, and everyone's work is somewhat tied back to everyone else's work. And if there's an error or there's a change or there's anything, that can propagate back out and have a profound effect down the road. You want when you make a decision to understand the implications of it. Does this fit? And then to be able to have those decisions stick.

Jon Snoddy (24:40):

So we're doing now an attraction that is the first one. We just did a big scan of the parks. We took advantage of the fact that the parks are empty. Never going to have that again, I hope. So we flew helicopters over and did a core scan with helicopters and set up tripods and did a fine scan with those and then merged all those together. And terabytes of data did the insides of several of the attractions and merged that. So all of that data flows, and everything lays down on top of each other correctly. And so we have a project that we're doing where we're doing a big rethink of a big attraction, and it's been really cool to see the design teams using real data. And you never had that before. You're doing a process where you're saying it's going to be kind of like this. But if you're doing that with real data, you can say it's going to be kind of exactly like this. And you can move things around in very subtle ways early, early, early on in the process. That's kind of a big deal because it means that our concept designers are able to express their idea really eloquently and really thoroughly. And it's going to allow the teams as they build things to go back and really understand.

Jon Snoddy (25:50):

And then the other end of that, we now routinely do something we call pre-integration to hardware in the loop process, where if you go to any Disney attraction, there's an equipment room off to the side that's filled with racks and racks and racks of equipment. And those racks have control systems and audio systems and video and all these things. In the past, we would build those things and do all the interconnects in the field, and it would take months to test all that stuff and make it all work. And when you're in the field, there's all this competition for the ride system. Somebody needs to do some welding. Somebody needs to hang some lights. Somebody needs silence for something else. And so everything

gets scheduled down to the minute. Well, now what we do is we build a computer model of the ride system, which we run in the unreal game engine, and then we build all of those racks, all of those control systems, literally the racks that will go to Orlando or go to Disneyland and sit in the real attractions. Literally, those racks sit in a conference room, and on a big screen is the view of what you'll see out of a roller coaster or autonomous vehicle or whatever the ride conveyance is. And actually, all of the things that are controlling that on-screen view are the real equipment.

And so we've taken what used to take months in the field, and now it takes days in the field. And it's really that level of change. It's amazing. And so that kind of stuff is pretty exciting, to see how we can use technology to enable these designers' visions to crystallize earlier and with more accuracy and then remain true throughout the process.

Alison Dean (27:30):

Well, it also increases the velocity to implement things, which is significant, given the fact that there is constantly a whole host of projects happening at Disney. So you can really make more things happen.

Jon Snoddy (27:42):

Way more things, yes.

Alison Dean (27:44):

Okay, so we've talked about AI. We talked about autonomous vehicles. Are there any other future innovations that you're excited about?

Jon Snoddy (27:51):

Quinn Smithwick, one of my favorite people in the world, Quinn's a Ph.D. in optics or something like that and a very, very creative, brilliant guy that's been working on this display that uses projection and head tracking and eye-tracking. You can sit down, and it finds your face and finds your eyes and presents to your eyes, without you wearing any glasses or anything like that, a view of the world that's computer graphics. And you can see it, and you can move your head around as fast as you want. Those views always present it to your eyes. And you can sit right next to me. And five or six of us can sit there, and each of us is tracked, and each of us gets its own view of the world. And so it's going to let us do AR with no glasses.

Alison Dean (28:33):

Oh, I like that.

Jon Snoddy (28:34):

And so we're playing around with ideas for attractions based on things like that. So we do things like that all the time. And we're big on displays and kind of nutty ways of doing things, but it is incredible just what you can do now. This stuff works now, and stuff that we've imagined for 20 years is finally working. And it's exciting to see us able to take ideas like that and make them real-time.

Alison Dean (28:56):

Well, I'm happy to be a tester of that tech, if you want me to be. Can we speak about anything else on the cutting edge for theme parks or anything else as it relates to the experiences that we might have at a theme park moving on into our lives, without telling us any of the secrets or actually tell us all the secrets?

Jon Snoddy (29:15):

We've done a bit of press about this slime robot that one of my teams did. It is this human-sized robot that we essentially fling into the air, 75 feet in a year, and it's like a diver. It knows how to tuck in and flip and extend to slow down. It can control itself really in any way. And all that's built into the robot. So the robot has a mini-brain inside, and it has a balance system using inertial measurement units. And so that gets flung into the air, and that's going to be part of the vendor's campus when Disneyland opens. You'll see some amazing things there. That was kind of an amazing project, a truly outrageous project. It started with this idea of, “Could you toss something in the air and animate it, imagining like gyros inside or something?” And then the teams got that, and a couple of folks were working on that together. And these two guys, Tony and Morgan, just put together these two ideas into something that could fly through the air. So that's neat, and that's coming. And that's, I think, going to kind of surprise people because it is so wonderfully outrageous.

Alison Dean (30:22):

I dig it. Any hurdles to innovation that you see today, versus when you started at NPR? Are there any clear depictions for you of innovation blocks?

Jon Snoddy (30:32):

I will say one thing, the visual sophistication of the audience. It is incredible how fast people absorb an innovation that becomes the new zero level and then the next one that comes in becomes the new zero level. Things that you would sit in a room and not notice at all, now a 12-year-old notices instantly. Pick any science fiction thing and go look at it now, something from the 70s, something from the 80s, and if you were around back then, you saw it, and it blew you away somehow. And yet you look at it now, and it looks like a cartoon. There's this insatiable appetite for amazement that a lot of people are pushing things into. When you build something, people assume, “Oh, well of course you can do that. You use computers

or something, right?” And you work yourself have to death and show it to people, and they go, "Yeah, it's cool. Good. Okay, what else do you have?"

So you always have to go farther than just the technology. If you just are showing technology, that's pretty empty, and that'll pretty quickly disappear. If you're telling people a story, if you're building characters that move people that you connect with in a story that is meaningful to them, then the technology just becomes one of the many aspects of that. You have a chance at building things that last and building things that transcend just the flavor of the month. But there's a ton of things that could be done that we choose not to do because they're just not meaningful. Nobody comes to Disney to see raw technology. So it means you have to have the tech. It has to be there. It has to work. It has to be seamless, but it also has to be submerged under a meaningful story.

Alison Dean (32:14):

It makes me think it's almost like there's a pressure for more forced wins in a way, because way back starting in a career at NPR and doing like one thing that was epic from a technology perspective, it would be like great. That was my one for the year. And now the velocity for needing these wows to happen all the time, because you have 12-year-olds that can see tech, interact with tech in such a specific way, and they have such expectations for technology that my generation certainly didn't have, my brother's generation didn't have, I feel like there must be an inherent pressure. And I don't know. Is it a stressful pressure or an exciting one?

Jon Snoddy (32:54):

It's both. It's exciting. Like I said, finally, technology works in a way that it didn't a while back. We had this whole family of ideas that used speech and visual recognition and computer rendering and things like that. We couldn't do that. Now you can. Some of our recent attractions, there's a thing where you fly in an attraction, you're actually flying a vehicle, and you're looking at 8,000 by 4,000 pixels in real-time with multiple overlays. And it looks film-like. It looks like you're in a film. And I can't wait to see that in 10 years to see if we look at it and laugh and say, "Look, it's only 8,000 pixels. It should've been 80,000 pixels." I don't know. But it is an order of magnitude jump from where we were before we were able to produce. And it was all Disney technology that we built in-house.

It's kind of cool in that there is an audience for great innovation. There's tremendous competition if you're in the innovation business because everybody's doing it. It's kind of cool that I work in a company that has an audience already for thinking big. If I was at a startup, like I've been many times, you have to do that. You have to come up with the innovation, but then you have to go and get the audiences, and you have to

market it. Then you have to finance it and all those things. And it's kind of cool to have all of that built-in, and now you just feed that innovation into something that knows what to do with it.

Alison Dean (34:19):

Okay, so you're basically saying you have no stress about this. It's all exciting.

Jon Snoddy (34:24):

I'm not somebody that has a lot of stress about anything.

Alison Dean (34:26):

I think it's great. It's great. We all dream of this. Okay, what are the most important lessons that you've learned from your mentors?

Jon Snoddy (34:32):

Focus on people. It's the kind of thing that you always think you understand. Then next year you go, “Oh my God, I had no idea.” And then the next year you go, “Oh my God, I had no idea.” It's so complex and so rich and so deep. And now I no longer think that I know a lot about people because I realize I don't. But mentors have taught me about listening and listening is not waiting for your turn to talk, that if you actually listen to people, you can learn a tremendous amount about what's on their mind about anything, about everything. And I'm going to say that, and everybody's going to go yeah, right, whatever. But over time, you'll find that you come back to that notion and understand it more deeply and more deeply and more deeply, and it becomes more and more a tool to help you connect with people and to do great things together.

Jon Snoddy (35:15):

And then just the importance of people. I remember a mentor once telling me... He was talking about the budget for something I wanted to build, and I said, "Oh, I don't deal with that money stuff. I'm really about the design." And he said, "If you don't think about that money stuff, it means you've delegated that to someone else. And so if someone else is going to be the one that is determining what you can do and what you can't do and how big your idea can be, and everything will be governed by other people. So you may want to come to understand that." My version of that is asking people, "Trace where your paycheck comes from. Try to figure out all the steps that it takes for your paycheck to get to." So that was an important thing to me. I'm not a finance person, but I now understand better than I did that things have to be commercially viable for us all to get to go play tomorrow. And so we've got to have some mix of vision and reach, but also ability to deliver and some way to pay for all this fun.

Alison Dean (36:10):

Is there anyone, past or present, that you would have wanted to study under?

Jon Snoddy ():

Ivan Sutherland is a pretty cool name, the guy that invented VR. I love these people who when technology was two sticks and they imagined 3D movies or when they could see so far into the future and to be so right about it. I got to work closely with Ed Catmull on a lot of stuff, and I met him really early in the Pixar days when I worked at Lucasfilm. He was just another guy there, but then got to spend time with him, and what a brilliant person he is. I think that Nikola Tesla, that was somebody with some big ideas, wireless power and things like that, audacious things that were pretty cool. I think that it'd be pretty neat to have worked with him.

Alison Dean (37:00):

I dig it.

Jon Snoddy (37:00):

Edison, I don't know that I would've liked him, but the idea of having a factory that could pound out innovation, something to be said for that, probably a lot to learn there. Those come to mind. I'll think of 20 more in a minute.

Alison Dean (37:13):

What you want your direct reports to remember you for?

Jon Snoddy (37:16):

I'm not big on legacy. We're all forgotten pretty quickly anyway, but I would hope that people would say, "Man, that moment in my career was super productive, and we did astounding things, and that Jon guy was in the room," and to be associated with part of a team, part of a group that was fully in control of its craft, that could deliver things and to be remembered as somebody who could put that together.

Alison Dean (37:45):

I dig it. So I'd like to punctuate this conversation with a recent breakthrough that you've had.

Jon Snoddy (37:50):

Yeah. I keep coming back to the AI characters thing because it's one of the biggest things that I'm working on right now. And we used to do these branching narratives that felt that we could hide the branching, but it was still pretty branchy, into something that is starting to feel like you're talking to someone and it's beginning to feel seamless at times. And with the progression that I see, we're going to really get there and deliver something in about a year that will feel just completely seamless. That's pretty neat. And what's

neat about that is taking a character that artists created and taking a group of story people that envisioned a personality and a story, and then a group of technologists, and putting all those together to create an experience in which this character that came out of the minds of these people kind of pops the life out of nothing. And you can talk to it.

Alison Dean (38:42):

I'm excited for that. I'd like to be another test person to experience this.

Jon Snoddy (38:46):

You no doubt will be.

Alison Dean (38:48):

Okay, great, great. You all heard it here first. A big thank you to Jon Snoddy. Thank you for tuning into The Breakthrough, brought to you by TheoremOne. Make sure to hit that subscribe button and leave us a comment. You can find us wherever you listen to podcasts. And for more great content, follow us on Twitter and Instagram at breakthrupod. That's Break, T-H-R-U, P-O-D. I'm your host, Alison Dean. Until next week.