Down to the Struts

Season 6, Episode 4: Disabled in Space with Denna Lambert

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Guest: Denna Lambert

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**Introduction**

“Whether we're talking about me as a blind person, or someone with let's say, a chronic illness, or someone with different types of disabilities, at the end of the day, we have human desires, we have human dreams, and they should be able to take shape and form regardless of whether you have a disability or not.”

[jazzy piano chords, bass strumming with smooth R&B]

Qudsiya Naqui:

Hi, this is Qudsiya Naqui, and welcome to Down to the Struts, The podcast about disability, design, and intersectionality. Today, we’ll listen in on my conversation with Denna Lambert. Denna is part of the NASA Space Tech Mission Directorate, an Astro Access ambassador, a single mother by choice, and a member of Delta Sigma Theta. Denna and I talked about her efforts to advance diversity, equity, inclusion, and access in space innovation and exploration; her time as part of the second disabled cohort to experience zero gravity and its implications for access here on earth; and how being a single mom to a four-year-old is sometimes like being in space. Denna has met all of these experiences with wisdom and grace. I hope you enjoy this journey to the stars with Denna as much as I did. Ok, let’s get down to it.

Qudsiya Naqui:

Well, thank you so much, Denna, for joining me. It's such a treat to be able to sit down and talk to you today.

Denna Lambert:

Thank you so much. I have been looking forward to this conversation just oh my goodness, just to talk and, and catch up. So I'm so glad to be here on the Down to the Struts.

Qudsiya Naqui:

Well, I'm so glad to have you, the feeling is so mutual. So I wanted to start if you could introduce yourself and share a little bit about you and your disability journey.

Denna Lambert:

I'm Denna Lambert. I live in the DC area, specifically Maryland. But I like many folks who live in DC, I came here from Arkansas, so I'm an arkansan, born and raised. So I've been living in the DC area for almost 20 years now, I work for NASA, specifically our Space Technology Mission Directorate, which has given me a lot of opportunities to connect with young researchers, innovators, and entrepreneurs. And that really speaks to my own personal passion of advancing space technology. And really ensuring that we're able to bring along groups of innovators, and to be a part of that is just a blessing. I am a single mom by choice to a almost four year old son through adoption, and I am blind. So blind since birth. So a lot of different things, I kind of wear a lot of different hats from being a mom to a government employee to a STEM innovator to try to be as involved in and connected with my communities. I'm a board member of our cooperative organization, which has about 1600 units and over a $14 million budget, just trying to stay connected and really promoting inclusion in our our neighborhoods. So as far as my disability journey, I've been blind since birth, I do have some remaining vision. So I do find myself sometimes straddling the fence of experiencing life as a blind person, or someone who oriented non visually, to someone who does have access to some visual information. And sometimes being perceived by you know, the public is being more sighted than blind. And that's kind of, I don't know if the right word is a dichotomy, or kind of a push and pull that a lot of low vision folks experience. But it's been a part of my everyday life from schooling to learning how to navigate and using a cane or a guide dog to how to want to access information. And whether that is, you know, in digital form or in Braille, or sometimes in large print, it kind of permeates throughout a lot of different decisions and aspects of my life.

Qudsiya Naqui:

Thanks for that overview. Denna, there's so many aspects of your identity and who you are that I hope that we can explore in this conversation. But I wanted to start, since you mentioned it first, also with Could you share a little bit more about what led you to where you are now to working on really exciting diversity, equity and inclusion initiatives at NASA?

Denna Lambert:

I think initially, a lot of the DeIA, and now “A,” meaning accessibility community really honed in on the workforce, you know, how do we bring in employees? How do we treat them? How do we retain really good talent in our organizations, particularly in the government. And I think now we're recognizing that inclusion and equity and diversity and all of those principles surrounding that permeate through all different aspects of life. And it's in our relationships, who we develop partnerships with agreements that we we create with business partners, or investors. And so being able to merge that, that that work of equity inclusion, not only in when we look at our workforce statistics, and who is there and where they are in our organization and our leadership levels, but how they're able to be a part of the ecosystem that we call Space Technology, and who's a part of that. And so, as we start to have these large, you know, missions of Artemis, where we're going to go back to the moon and where we're going to live and work and beyond. We want to make sure that we're bringing the best parts of human, you know, society or human experience. And that includes diversity, equity, inclusion accessibility, we have to infuse that into our development and into our innovation as well. So to be able to do that with NASA is just a dream to be able to do that.

[Musical interlude of gentle guitar struts with a background that evokes soaring through space]

Qudsiya Naqui:

That's incredible. I have some more questions about your work at NASA, and a bit about some exciting things that you have been up to over the last couple of months. But I know in addition to all that great work you're doing at NASA, you're also a mom, which you mentioned. So how has becoming a parent affected how you think about disability, diversity, equity, inclusion, and just sort of life in general?

Denna Lambert:

Oh, my goodness, all of it. You know, I think, at the end of the day, as a blind person, whether we're talking about me as a blind person, or someone with let's say, a chronic illness, or someone for different types of disabilities, at the end of the day, we have human desires, we have human dreams, and they should be able to take shape and form regardless of whether you have a disability or not. So for me, I started out working with a local girl scout troop, I was a Daisy, and Brownie , Girl Scout troop leader, I really enjoyed that I love spending time with the girls seeing them grow and, and learn new concepts and ideas. But when it was time for them to go, I felt like man, I really want to do this with my own child, you know, I want to have these experiences and help them grow as a person. And so that's what led me to thinking, Could becoming a mom be for me, I was single, at the time when I was thinking about this. And I did have to factor in blindness, though, I think in really factoring blindness. It wasn't so much of can I be a parent as a blind mom, you know, there's tons of really great role models out there in the blind community that I was able to find who were doing and killing this whole motherhood or fatherhood thing. But more how do i operationalize this? How do I become a blind mom on a day to day? How do I get my son back and forth to school or to doctor's appointments? And so I took some time to interview women that were out there who either decided to become moms or who decided that being child free was better for them. So I landed on the answer, yes, I do, in fact, want to pursue this. And I can pursue this as a single person. And really looking at the different options, you know, there's fertility, there's foster care, there's adoption, and I've had adoption on my heart for a number of years, even probably since the age of 10. And to be in a place that I could financially do that. It was definitely a journey. And I think having a positive philosophy or positive attitude about my own blindness, did really helped me in conversations with the adoption community, who is very new to working with people with disabilities who want to pursue adoption as an avenue to becoming a parent. And so now that I'm four years into this thing, at this point, my son is not quite aware that I am a blind person, he understands that he needs to interact with me, through touch, if he wants to show me something, he has to, you know, guide my hand there, or be more verbal and his descriptions of what he sees or what, what he wants. But it's not a showstopper, you know, we kind of figure it out. And while he's turning four, I'm going to figure out new ways of doing things when he turns five and six, it's a journey of just learning how to, you know, live this life that I want. So, I think that is probably something that is true for a lot of different people out there is that you never have quite the final answer. You have the answer that is right in the moment. And then you you reassess, and you adapt and you change, and that's where I think resilience comes in. I think that's where having a village that you build and expand, you know, to come alongside you in those moments when you're not really sure of yourself, but ultimately it It's okay. It's a journey. It's a process. It's ultimately just life.

Qudsiya Naqui:

I really value that point of view, especially as someone who is also blind and “parenting curious,” I would say, being a parent, I think is probably just kind of a scary journey for everyone. And it's just has similar in some ways in different than other ways sort of dynamics when you are a parent with a disability. And I think, you know, I really appreciate that.

Denna Lambert:

Definitely. So I've had experiences, where it has been so beneficial to know, and build relationships with other blind parents, you know, because there are some, you know, specific practical things of how am I going to teach my sighted child how to write his name or write his, you know, you know, letters or read art books, you know, per se. But there has been a surprising level of benefit, and goodness that has come from just building relationships with other parents without disabilities as well, there are so many, you know, commonalities, everybody's struggling, everybody's trying to find the new and better ways of parenting that works, you know, for their specific child. So, I have definitely realized that there's benefits of building a village that includes both people with disabilities and those without disabilities. But going back to the the first question of pursuing parenting and being, let's say, parenting curious, one thing that I realized when I would interview and talk with women, who were both decided to go the route of becoming a parent, and those that choose not to the question that I had, at the end of the day, was looking at their life and whether they were happy or not, was, were they at peace with the decision that they made? So, you know, for those who chose to become parents, were they at peace? For those that wanted to be child free? Were they at peace? And if the answer was they were, then I could see that reflected in so many aspects of their life and the relationships they had, and the things that they pursued, how they lived in the bodies that they have, you know, that it just seemed to reflect that peace that you get in the decisions that you make, and the things that come up in life, just, and I hope to continue that in any other decision that I have coming up, whether it is whether I move somewhere else, or I take a different job, that ultimately, can I live at peace for the decisions.

Qudsiya Naqui:

I appreciate that. And it's hard to know, right? Like, you have to look into the future a little bit to imagine that future self and like, is that future self going to be at peace or not? And yeah, yeah, that's the hard part, I think sometimes, but I really appreciate your vulnerability and sharing that. And I can attest that personally, even just for me, it's helpful to hear.

[Musical interlude of gentle guitar struts with a background that evokes soaring through space]

Qudsiya Naqui:

returning back to space for a second, which I'm sure being a parent sometimes feels like being in space. You recently, were part of the second cohort of people who participate in the NASA program called Aster Access, and you experience zero gravity, which is so cool. And I've been dying to ask you, what was that like?

Denna Lambert:

Oh, my goodness, you know, there's an analogy of when you're trying to explain, explain, I find myself having to explain basic concepts to my son who is exploring the world right now. And I want to, you know, describe a taste, you know, to him, and I can't explain it until I actually give it to him. So this whole experience was very much like that of experiencing weightlessness is such a foreign experience, in that, how we orient ourselves from, you know, what is up or what is down. The rules are totally different when you're in a weightless environment. But for one to actually put my hat in the race or my name in the hat. It was a dream come true. Because sometimes being a single mom, there are these practical decisions of, oh my goodness, can I do this? Can I get away for four or five days to pursue this dream? And to have the village to step in and help me do this to do you know, it's just I feel so blessed. So that's one thing that it has taught me is that I can as an individual, pursue the things that I love, while also being a mom, and And being a single mom. The second thing is getting a chance to work alongside disabled researchers and disabled engineers and blind scientist or amputees. That was just incredible. You know, we all were striving for a positive outcome on this one mission over a number of months. And a lot of these crew members came from Australia, you know, Spain, it was totally a melting pot of everyone who had a similar passion working towards the same goal. And it felt kind of a, it was like a utopic experience being in Houston for five days, really having to focus with a lot of intensity on making sure our experiments were at a level that were, you know, that was safe, that could pass muster with zero G, to actually getting on the flight. And there were some surprising, you know, aspects of that flight, but when we actually took a couple of days to rehearse the parabola plans that we had set out, I would say the experience was very well run very organized, it was considered a research flight. So there were a lot of I’s to dot and t's to cross, to give us the green light to go. So sometimes in a disabled community, we always have to kind of go in with a little bit of skepticism to say, okay, is this performative is this for show, and I would say with the Astro Access experience, it was very much way beyond a performative kind of thing. It was real research, real findings, real outcomes, that we had probably over 100 different individuals coming from space oriented companies like Blue Origin, and Virgin Galactic CRS space, they were there, because they wanted to know how to include disabled explorers, in their, their line of business. And that was exciting. So to have that experience, and then just too, as a 41 year old woman, where sometimes your body lets you know how old you are, to be able to do a flip, and a turn and a twist, you know, with little to no effort. That was, I felt like four or five year olds and just have that exuberance of Look at me, I'm standing upside down. But also to know that we were doing real research that will hopefully serve as pioneering steps for explorers in the future. That was really humbling, and very much a part of the story that I want to leave as a legacy, all of that to say it was epic.

Qudsiya Naqui:

That sounds incredible.

Denna Lambert:

I would just be doing cartwheels in the air, because I've never been able to do a cartwheel in real life. I know gravity. I know. And that is what is so crazy to think that in space, our physical bodies have so much more freedom than what we have may experience on Earth and a lot of the things that the limitations that we have on Earth are maybe more a function of our physical environment that we can hopefully change and expand. But in space, there's a lot more freedom.

Qudsiya Naqui:

How can advancing access and inclusion for disabled people in space, change how we think about our world here on Earth?

Denna Lambert:

We can address the barriers and challenges of space while we work on these these barriers and challenges here on Earth. And actually, this is reflected in the work that I do with NASA, that we want the technology that we're developing for spaceflight to have applications here on Earth. We build that into our requirements. So to know that as we look to launch duration missions, we know that disability is a normal part of the human experience. So it's gonna come up at some place, whether it's acquired disability, or something that someone comes with as their own, you know, experience in life. So, it is great to factor these things in, for instance, our mobility crew members, those with prosthetics, those with varying degrees of paralysis, they were testing out different types of materials, different geometry of prosthetics, that would work better in a micro G environment. Those findings, those insightzs that we gain, from these type of flights, will have implications for how we think of prosthetic design, here on Earth, and even for, let's say, the blind crew, we were testing out how do we convey crucial environmental information, and a sign or in how we navigate a space with a device orientation device that has applications right now for how we can convey information. For instance, on a flight, I have this occasion, a lot where a flight attendant will look to the passenger next to me, who is not disabled, to tell them Are you willing to help this passenger meaning me, in a case of an emergency, I will love if I had the information that I needed to take care of myself. And if I can get that from a tactile graphic from universal design that we incorporate in our environments in our buildings and our infrastructure, then that would make me a lot more self sufficient, sufficient, and not dependent on another person, or even make me just as capable of helping a non disabled passenger who may need assistance, you know, who knows what happens in a urgent situation. But I think, because space is such a foreign environment, and we have to double check and triple check and build redundancies, that we see that as the hardest, our biggest challenge. So everything below that, meaning, the challenges that we face on Earth, we can do that, that gives us the confidence that we can tackle tackle those problems. I'm so excited to see, you know, what findings and recommendations flow from this research. And I honestly hope to see more more more of this more disabled people going into space, contributing meaningfully to this sort of scientific process of discovery.

[Musical interlude of gentle guitar struts with a background that evokes soaring through space]

Qudsiya Naqui:

while I'm sure at this point, it's hard for you to imagine what would top going to zero G at this point? What's next for you, Denna, what are there are projects coming up for you that you're excited about whether inside of your work at NASA or outside of it?

Denna Lambert:

Specifically for work, I am the inclusive innovation lead for early stage innovations and partnerships. That's basically the group that serves as the front door for our space technology pipeline. And I am so honored to now be building a team where we're going to be hitting the road and meeting students and universities and small businesses to bring them along in our ecosystem of innovators. And that's going to be something that's that's pretty exciting. We've we've gotten approval for our strategy. So now we're ready for execution. We've gotten our budget, so we're able to roll out we're hiring, which is awesome. So that's something that I will be speaking more specifically to and on our social media platforms. Personally, oh my goodness! Sometimes I want to make it through each day. And that is a win for the day. I have a four year old boy that I'm raising. And I think this is where I'm getting into the thick of what a parent is. So I think a lot of my focus is going to be giving him the experiences that help him to grow. So maybe we'll get into sports. So maybe I'll become a coach or something for a T ball League, I don't know. But at some point, I love being involved with in my community. And I've held a number of open forums for our city council members for our board of directors. So maybe as my son gets older and maybe venturing into politics at some point, I don't know. It's something I've dreamt of as a high school and college student. And maybe now that I've gotten a lot more experience under my belt, maybe that, you know what, we'll see where that goes. But I, I right now, I'm looking forward, just, you know, continuing to grow and level up, you know, as a person, while staying grounded in you know who I am, which hopefully is I love meeting and connecting with people. I love being an advocate, and a supporter, and probably an inventor, so trying something crazy new. So if they do say, hey, Dina, you want to try to suborbital flight? I'll probably put my name in the hat for that, too. So who knows?

Qudsiya Naqui:

I mean, amazing, amazing. So you're gonna, you know, go further into the galaxy in every direction.

Denna Lambert:

Yeah.

Qudsiya Naqui:

Where can folks find you and learn more about you and your work?

Denna Lambert:

I've been doing a lot of connection through LinkedIn. So that's where you could find me. So my name is Denna D-e-n-n-a Lambert, L-a-m-b (as in boy)-e-r-t. You'll find me there. That's where I'll post a lot of information on our work in space technology.

Qudsiya Naqui:

Well, Denna, this has been super delightful. I'm so grateful for you taking time out of your very, very busy schedule today.

Denna Lambert:

Thanks for having me. i Oh, my goodness. I'm just so happy to be here just to share with and hear what's happening around the world and disability.

Qudsiya Naqui

Awesome. Thanks, Denna.

[jazzy piano chords, bass strumming with smooth R&B]

Qudsiya Naqui:

This episode was produced by Ilana Nevins and me. Our social media manager is Avery Anapol. Special thanks to Claire Shanley for designing our logo, and to Eiffel Gangsta Beats for our theme music. If you like what you’re hearing and reading, be sure to subscribe or drop us a review on Apple Podcasts, Spotify, Sticher, or wherever you love to listen, follow us on Twitter and Instagram at Down to the Struts, and join our Facebook group, Down to the Struts podcast. If you want a monthly update from me, including news from the disability community, sign up for our newsletter, Getting Down to It on Substack. If you have disability news or thoughts to share, drop us a line at [downtothestruts@gmail.com](mailto:downtothestruts@gmail.com). Thanks for listening, and see you in a couple of weeks so we can get back down to it!