Episode #8: Interview with Dr. Talitha Washington, Director of the Atlanta University Center (AUC) Data Science Initiative and Professor of Mathematics at Clark Atlanta University.

Ivory Toldson:

Hello everyone, and welcome to another episode of Collaborative Strategies for Inclusive Change. This is the official podcast series NSF INCLUDES Coordination Hub, where we highlight projects and partnerships that are shifting inequitable systems to improve accessibility in industry and inclusivity in STEM education and careers. My name is Ivory Toldson and I represent the QEM Network. I'm also a professor at Howard University in Washington DC and I'm the National Director of Education Innovation and Research for the NAACP. I'm very excited to be here today with one of our esteemed colleagues, Dr. Talitha Washington, who is the director of the Atlanta University Center Data Science Initiative. She's also the professor of mathematics at Clark Atlanta University, another HBCU in Atlanta, Georgia. As director of the Atlanta University Center Data Science Initiative, she is passionate about engaging the HBCU landscape and also building a community to prepare students and data science and discover solutions for data oriented problem solutions that impact Black lives.

She is the principal investigator of the NSF funded National Data Science Alliance to expand data science at HBCUs. The goal of the center is to increase the number of Black people earning data science credentials by at least 20,000 by 2027 and expand data science research that advocates for social justice and strives to eliminate bias. These are some very powerful programs, and this is right at the epicenter of the data revolution. I know a lot of stuff is happening in Atlanta that's going to affect the rest of the world. I think that this data center being positioned in Atlanta and in the HBCU, with all of the Black history that Atlanta has and all of the Black history of the Atlanta University Center, this is a very powerful thing that you have going on, right, Dr. Washington?

Dr. Talitha Washington:

Well, we are here to serve and to bring new insights through data because as you know, as we go through our everyday life, data impacts us, whether it's trying to get a loan from a bank, or using facial recognition in policing, to technologies such as your Apple watch that captures your health data that goes through your phone and you share it with your friends. So there's a lot of data being captured, and so what we like to think of is enabling data to help us figure out better solutions, to help us determine did we reach our exercise goal or is this person viable for a loan? We also know that bias and inequities have seeped into data methodologies, preventing some demographic groups, including African Americans, from getting loans, and also in other cases it's been shown that African Americans get misidentified in facial recognition software. So these are some challenges and some problems that we aim to address through our National Data Science Alliance, where we're going to work across all historically black colleges and universities just to bring new insights that will really benefit everyone.

Ivory Toldson:

Being a part of the Black community, we know that there are a lot of healthy skeptics. There are black people who are sensitive to the issues of racism in this society. They know how far behind we are in terms of matching the credentials and the access and the wealth of white people in this country. And so there are some that will say, there's no way that we can have data work to our advantage. That data is going to be inherently something that is going to be harmful to us, capturing everything through our iPhones and all those types of things. But you're saying that this center is helping to mitigate against the ways in which data can be harmful. What are some of those ways, and how can other people support your efforts?

Dr. Talitha Washington:

I haven't found that level of skepticism with data. We find it refreshing. Our students come in knowing that data and technology is important. They don't know what it is, but they know they need to learn it. They know they need to do it because that is what's a driving force for a skill that's needed in the future workforce. Also, we know in the Black community that data's being collected whether we want it or not. It is happening. And there are ways that we can take ownership or sovereignty of data so that we can create solutions in that we're not just at the whim of someone else, but we can actually contribute to the conversation, contribute to the technologies, and contribute to new innovations that really benefit the black community and other communities as well. So fortunately, I haven't been met with that level of skepticism.

Maybe that's because I'm too much of an optimist, but the need is there. There's an underrepresentation representation of Blacks in data science. There was a study that was put out. They said that only 3% of data and analytics professionals are African American, where we make up about 12% of the US population of a whole. We know that diverse thought, diverse people, diverse perspectives help create better solutions. In terms of data science, a lot of these solutions help people. So we want to make sure we interpret the people element so they can really best serve everybody. And to do that, we need the diverse perspectives at the table.

Ivory Toldson:

So it sounds like data science can create opportunities for some decisions that's marred by subjective biases to maybe be more fair. So there are humans that are making decisions about things like loans, sentencing, whether or not you get a job, whether or not you get into certain types of schools, and data has an opportunity to replace this. So how can we make sure that as data science is being used to augment humans' decisions, that data won't be used to further inequities and not mitigate them?

Dr. Talitha Washington:

We all have biases. I have bias. We all carry some form of bias. We have a limited knowledge base. Each human being has a limited knowledge base that we operate in. And so we're going to come in with some ideas or some notions of what should be or what is, we'll come in with an interpretation in a lens, in a way that could distort reality. That's why we always say with data

science, it's a very team-oriented field, in that you really want those different perspectives to directly challenge how we're collecting the data, how we're assessing the data, and how we're using it to message in either creating policies or making health recommendations from your medical doctor when you go receive care.

So we need to make sure that they are different people at each step of the way so that this whole, sometimes people call it the data life cycle, project life cycle, mitigates by as best as possible. Can we completely eliminate it? Maybe not. But if we can at least challenge it, use our colleagues, use our peers, and use some other systems to make sure that we're not exacerbating it in this data life cycle.

Ivory Toldson:

I know before you got to Clark, we talked a lot about HBCU funding and the funding disparities, and when you were at the National Science Foundation, you helped the QEM Network in our quest to make sure that HBCUs were fairly represented in NSF portfolios, and I know that that was a labor of love. Now you're at an HBCU, and I know you have some ideas about how we can further this process of creating more opportunities for HBCUs and maybe some partnerships between the HBCUs in the specific field. So I want you to talk about that a bit.

Dr. Talitha Washington:

As director of the data science initiative, I have the luxury of working across Clark Atlanta University, Morehouse College, Morehouse School of Medicine, and Spelman College. So it's been really great to work across the institutions, work with faculty, staff, administration, and our students to develop and innovate around data science. Before this position, I was a program director at the National Science Foundation. While I was there in my first year, I found myself building and implementing their first Hispanic-Serving Institution program that really sought to leverage and enhance STEM education for students at Hispanic-serving institutions. And then I did a rotation in the Convergence Accelerator, which we can think of the convergence of different disciplines to solve problems of societal interest. So both of those gigs will stay at the NSF, I much enjoyed, really enjoyed my time there, and also having the opportunity to go to the NSF as a faculty member from historically Black college university, to advocate that diverse folks and institutions should have access to funding.

Sometimes, as I said before, bias impacts us all, and sometimes bias can seep into the review process of who gets awarded funding for projects and who does not get funding for projects. And the projects that get funding, well, they're the ones that we expect to advance STEM for our nation. And now I'm on the, as my colleagues would say, the reality side where I'm at an HBCU and I'm the PI of three grants from the National Science Foundation and negotiating all the financial joys, management joys that come along with it. I think that we do have some work to do at HBCUs in providing support for PIs as far as financial management, navigating all the accounting systems, purchasing, because there's a lot of administrative work that happens behind the scenes that unfortunately at many HBCUs, not all, but many HBCUs, that tends to be the burden of the PI.

Ivory Toldson:

The final thing I want you to address is looking at systems change through policy that includes national network. We're about collective impact and building a national coalition that can shape policy, because we know that a lot of the problems aren't just individual actors doing bad. It's embedded in our system. So what are some key policy strategies that you can think of to where we can create better systems that will improve the landscape of equity in data science?

Dr. Talitha Washington:

So for the National Data Science Alliance, we also have a collective impact really at the core of what we do. We have a regional hub model where we have three regions. We have a Northeastern regional hub that's led by Dr. LaTanya Brown-Robertson at Howard University, your colleague, and then our South Central hub that's led by Dr. Sajid Hussain at Fisk University. And the Southeastern Hub is led by Dr. Eric Mintz here at Clark Atlanta University. And the research of the project is led by Dr. Justin Ballinger, who's at Morehouse College. So we have this collective impact built in and infused into the work that we're doing to build a capacity and to support the building capacity at HBCUs around data science. So our project focuses on engaging with faculty, engaging with staff and administrators around data science, either through workshops, through research affinity cohorts, through curriculum development work groups, to provide an at scale, let's say, community of practice where we have this community across HBCUs where we can cross fertilize with respect to data science.

And we'll also have others come along with us from other higher education institutions as well as industry and government. But creating this network and this ecosystem across HBCUs to enhance data science and also to advertise at our institutions, I think in a way it is an indirect way to address policy because the goal there is to better position HBCUs around data science as data science has become important across all fields, including developing policies, including healthcare, including economics, including English. All fields are leveraging and using data science. So providing support to HBCUs to better position us to be at this forefront of this data revolution.

Ivory Toldson:

Some of the things that really caught my attention was looking at the ecosystem and how we create the kind of ecosystem that we need. I don't think we talk about that enough. We talk about how can we directly impact policy, but how do we impact policy just from the things that we do, not separating policy advocacy from practice, but how does our work indirectly impact policy? So I think that's something that we need to have a deeper conversation about. And also the idea of convergence. I know that you were a part of the Convergence Accelerated right before you went to Clark Atlanta. When we think about data science and convergence, 20 years ago data science existed, but we didn't really think about it in terms of it being a subset of computer science.

But now those things have converged in such a way that is so intimate, and now that we have AI coming into the picture, so you'll have data, you'll have AI. So there's a lot of complex things that we have to think about. So thank you so much for this dialogue and for really sparking our imagination about what's possible if we can create equitable systems across data science.

Dr. Talitha Washington:

Great. And thanks to be here. And if I could give a shameless plug for our website, is that possible?

Ivory Toldson:

Yeah, go right ahead.

Dr. Talitha Washington:

If anybody wants to connect with us, you can go to datascience.aucenter.edu. That's datascience.aucenter.edu. We are active in creating data-driven solutions around, as you say policy anywhere, looking from prosecutorial performance to working with our police chiefs to create data dashboards, but really to provide these insights just to help better equip the society, the communities in which we live. So thank you, Dr. Toldson, for having me on today.

Ivory Toldson:

Thank you. Everybody, definitely check out the center, and continue to follow us. Follow the Includes podcast as we bring on more scholars and activists who's doing outstanding work to create more inclusive environments for STEM education. Thank you all so much.

Speaker 4: