

**GLOBAL FEMINISMS
COMPARATIVE CASE STUDIES OF
WOMEN'S AND GENDER ACTIVISM
AND SCHOLARSHIP**

SITE: UNITED STATES

**Transcript of Netia McCray
Interviewer: Abigail Dumes**

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Netia McCray is an educator whose global non-profit organization, Mbadika (bah-GEE-kah), has helped thousands bring their ideas to reality through leveraging STEM. For over 10 years, Netia has worked to demystify STEM in order to make it accessible to typically disadvantaged groups. As a March 2020 Longhailer, she has witnessed first hand the short and long term devastation that Long COVID has brought to not only her community but to communities worldwide. Netia believes knowledge is power and being able to obtain appropriate care and support starts with equitable access. Through her work with C-19 LAP, she utilizes her educational background to demystify Long COVID and recovery for communities like hers that shouldered the burden of the COVID pandemic.

Abigail Dumes is a medical and cultural anthropologist and an assistant professor in the Department of Women's and Gender Studies at the University of Michigan. Dumes received her PhD in sociocultural anthropology from Yale University, and her first book, *Divided Bodies: Lyme Disease, Contested Illness, and Evidence-Based Medicine*, was published by Duke University Press (2020). Her ongoing research explores the relationship among gender, contested illness, infectious disease, and environmental risk in the United States; she is working on a new project on Long COVID.

Abigail Dumes: Hi, my name is Abby Dumes, my pronouns are she/her/hers. I'm a white woman with a red and blue and white floral print shirt, brown hair and a braid over my left shoulder; and I have silver and gold circular earrings. Over my left shoulder is a red framed painting, and to my right is a bookshelf. Netia, thank you so much for being here and being willing to share your story with the Global Feminisms Project. I'm going to briefly introduce you, and then we'll move on to our questions. As the executive director of a nonprofit organization, Mbadika, her work focuses on making STEM, or science/tech/engineering and mathematics education accessible to learners of all ages. As a long covid advocate, Netia's goal is the same: making knowledge regarding post infectious disease accessible to all. Netia graduated from MIT in 2012 with an undergraduate degree in political science and I just realized that when I first introduced you I'm not sure, based on the bio that I was reading if I gave your full name, which is Netia McCray.

Netia McCray: So, should I give a description of myself in my surroundings, before I start?

AD: That'd be great.

NM: So I'm an African American female in her early 30s wearing minimal jewelry, except a necklace over her neck, wearing a tan shirt and a royal blue sweater. Her background is gray with two portraits on the wall that she does not know their details because they happen to belong to her partner. And she has a pair of black headphones over her head in order to engage in this video recording.

AD: Wonderful. Thank you so much. So the first question we're going to ask—we're gonna start with sort of where your story begins; as you think about where you are today, we'd like to hear how you would depict that journey, what brought you to this point.

NM: I would say: If I was to look at my life like what will be my lifetime biographical movie that I'll go okay this this kind of like is the really important first step to my life journey, I would say, will be my childhood and Florida,¹ regardless of when I first was born and my family moved to Homestead² Florida, which is right outside of Miami; or when at the age of 10 we moved to North Florida to be in a safer environment. My Florida upbringing, I like to say was my first step because, unlike the childhoods I now encounter or I've experienced through the testimonies of my friends and colleagues, Florida, is one of those wild places

¹ Florida is a southeast state in the United States. "Florida." Wikipedia. <https://en.wikipedia.org/wiki/Florida> (accessed August 20, 2022).

² Homestead is a city located in the Miami suburbs of Florida. "Homestead, Florida." Wikipedia. <https://en.wikipedia.org/wiki/Homestead, Florida> (accessed August 20, 2022).

that even if you don't like wildlife, or you don't like nature, you are forced to learn so many weird and interesting things. Not for survival! It's not like I walked out my front door and a rattlesnake was attacking me— like it's not that type of wilderness. But it's one of those things that you were exposed to people from all walks of life, who will visit your school to do safety briefings or showcase like hey, Florida has all the science centers because there's so much to explore and learn. And between that and my parents, it was such a nurturing environment for a highly curious kid. And I like to say that was my first step in my journey—was when my parents realized that they were kind of torn about having to move houses or do anything different because they saw how much I enjoyed being a kid, and being able to explore my curiosity and wonder about the world around me to the point my mom went: you know what I was a child, I couldn't understand certain kids but my kid is the kid who finds dirt interesting. And if you have some bit of knowledge, she will sit there for three to five hours with you to glean as much as possible from her. And I look at that moment and realize: my childhood is important to my story because it's kind of like the story *Arabian Nights*,³ and which a lot of people don't know this: Sinbad,⁴ Aladdin,⁵ all the stories that we know from the Middle Eastern region⁶ come from this book of *Arabian Nights* and the actual plot of the *Arabian Nights* is there was a mad King, who felt betrayed by his ex-wife, I guess you can call her that. And he kept let's say getting rid of her replacements, because he had pretty strong PTSD⁷ vibes along with insomnia.⁸ And his last wife grew up learning about how to tell stories from the actual village storyteller. And she utilized the skill in order to keep up and stay alive to the next day by ending her stories at night to her husband or the King on cliffhangers. And she found everything in her environment useful when she was coming up with an engaging story for that night to stay alive, and I didn't notice it at the time, but all those random bits of information were useful at least once in my life, whether immediately or later on down the road. And I tell my mom all the time, because my father is no longer with us, you didn't realize how just exposing me to everything at that point in time, has made me such an amazing executive director and

³ *Arabian Nights*, also known as *One Thousand and One nights*, contains a series of Arabic folklore told by Scheherazade, the female protagonist in the story itself. "One Thousand and One Nights." Wikipedia. https://en.wikipedia.org/wiki/One_Thousand_and_One_Nights (accessed August 20, 2022).

⁴ Sinbad is an epic character in *Arabian Nights* story and Middle Eastern folktales. "Sinbad the Sailor." Wikipedia. https://en.wikipedia.org/wiki/Sinbad_the_Sailor (accessed August 20, 2022).

⁵ Aladdin is a fictional figure in the story collection *Arabian Nights* of Middle-Eastern origin. "Aladdin." Wikipedia. <https://en.wikipedia.org/wiki/Aladdin> (accessed August 20, 2022).

⁶ Middle East is considered to be a Eurocentric term that refers to the region transmitted between Southern Europe, Western Asia, and North Africa. "Middle East." Wikipedia. https://en.wikipedia.org/wiki/Middle_East (accessed August 20, 2022).

⁷ Post-traumatic stress disorder (PTSD) is a mental health condition that can result from a horrible and traumatic event. "Post-traumatic stress disorder (PTSD)." Mayo Clinic. <https://www.mayoclinic.org/diseases-conditions/post-traumatic-stress-disorder/symptoms-causes/syc-20355967> (accessed August 20, 2022).

⁸ Insomnia is a health problem in which people find it difficult to fall and stay asleep. "Insomnia." Mayo Clinic. <https://www.mayoclinic.org/diseases-conditions/insomnia/symptoms-causes/syc-20355167> (accessed August 20, 2022).

educator to my students, or a great engineer developing products solutions, because, based on my background and my variety of experiences, I can pull from a lot of things to make unique solutions to everything. And so I think that's where my little lifetime movie would begin: a little girl in Florida in the 90s, who was kind of like really introverted, but she became an extravert when it came to learning. And just growing up in a loving household where my parents fostered any kind of creativity or idea that I had. And that I'm truly, truly blessed about, but I would say, some people go: that's the villain origin story, and I go no, no, it's still positive right now. So that's my background.

AD: That's great, that's great so if we connect the dots from there to MIT⁹ and then you founding your organization: can you flesh that out a little bit for us? what the trajectory was there?

NM: Oh sure! I would say the catalyst for everything that happened was when I was in my 11th grade year, I received a letter from MIT and the mail. And the letter was like: hey, we have this summer enrichment program and based on your PSAT¹⁰ and SAT¹¹ scores and you're— on your, oh my God, your academic record thus far, we think you'll be a perfect fit. Please apply. And I was like MIT? And the first time— I remember looking at that— I didn't tell my parents what it was, until a couple days later. It's like, isn't MIT the place where they built the atomic bomb¹² and I kept going: Do they have a school? and at this time, I know people are like how old are you? This was 2007, 2006, the Internet was widely available, but it wasn't the search tool it is today.

So I had to do my own research on like, oh it's a school. Like it's not just a research institution. Oh, okay, so you can actually go to school here. And when I brought it up to my father, my father immediately was like: oh, you're going. I don't have to pay anything except to fly you there? Oh you're going. And I was like 16-year-old Netia feeling a little independent, was I'm sorry, I didn't make a decision. I was just informing you of a piece of mail I received in your household. I think I should be able to dictate what I'm going to do my summer. And he's like: no, you don't understand what that piece of paper is. You're going. And he just stood over me while I was applying. And the whole time I was like: you

⁹ The Massachusetts Institute of Technology (MIT) is a prestigious private research university in Massachusetts. "Massachusetts Institute of Technology." Wikipedia.

https://en.wikipedia.org/wiki/Massachusetts_Institute_of_Technology (accessed September 28, 2022).

¹⁰ The PSAT is a standardized exam for high school students and is used to identify recipients of the National Merit Scholarship Program. "PSAT/NMSQT." Wikipedia. <https://en.wikipedia.org/wiki/PSAT/NMSQT> (accessed August 20, 2022).

¹¹ The SAT is a standardized exam used for college application in the United States and a few other countries. "SAT." Wikipedia. <https://en.wikipedia.org/wiki/SAT> (accessed August 20, 2022).

¹² Atomic bomb is a massive destructive kind of nuclear weapon. "Nuclear Weapon." Wikipedia. https://en.wikipedia.org/wiki/Nuclear_weapon (accessed August 20, 2022).

don't know if this is a terrorist organization,¹³ because for a lot of people post 9/11,¹⁴ those first 10 years post 9/11 is a little precarious when you are hearing institute, technology, research, I'm like this could be a scam.¹⁵ I don't know enough, but he's forcing me, so I'll do it. I applied, I got into the program, and I was off on my first summer away from home. And I arrived in Boston¹⁶ into MIT's campus and immediately, it was as if someone just slapped me across the face, because I saw a city car zoom by me and then it folded up into a parking spot. And I was hooked immediately. Like wait, what is this place? And every day that summer, despite many lows going through that academic program and realizing, even though I was the top student at my high school how inadequately I was prepared to apply for a university or college, let alone at MIT. Because in that summer program, those six weeks, I realized out of 55 kids I was number 54. And to go from being the top kid taking an extra 4 to 5 classes beyond your high school's daily allotment— like I was taking night classes at the community college to prepare myself for college. And to see even with that additional effort, I was still number 54 out of 55 kids: It's like, oh God, what are the kids in my high school going to encounter, when they actually go to these colleges and universities, and they fail the first year because they don't know— I don't want to say competition, but what their peers are doing. I thought I was doing great doing calculus in junior year, because I was one of two in my whole county. Apparently, it was the norm in other states to have already started calculus by freshman or sophomore year. And despite the lows of those programs, and the reality checks of what was going to face me as an adult, the thing that kept motivating me was I can walk down the hallway and the infinite corridor¹⁷ and see some really cool stuff that I've only seen on National Geographic¹⁸ or the Science Channel.¹⁹ And so when that summer program ended, it was my senior year. And the program director, who at first just thought I was a wayward²⁰ kid, because he couldn't believe I had never heard of MIT before.

¹³ Terrorism refers to violence and criminals acted by systematic groups or individuals that threaten society's safety and peace. "Terrorism." FBI. <https://www.fbi.gov/investigate/terrorism> (accessed August 20, 2022).

¹⁴ Post-9/11 GI Bill refers to an education assistance for veterans serving after September 10, 2001. "Post-9/11 GI Bill (Chapter 33)." Veterans Affairs. <https://www.va.gov/education/about-gi-bill-benefits/post-9-11/> (accessed August 20, 2022).

¹⁵ Scam refers to a fraud used to deceive people for something, particularly money. "Scam." Dictionary.com. <https://www.dictionary.com/browse/scam> (accessed August 21, 2022).

¹⁶ Boston is the capital city of the state of Massachusetts in the US. "Boston." Wikipedia. <https://en.wikipedia.org/wiki/Boston> (accessed August 21, 2022).

¹⁷ The Infinite Corridor is a long and iconic lobby connecting main buildings in MIT. "Infinite Corridor." Wikipedia. https://en.wikipedia.org/wiki/Infinite_Corridor (accessed August 21, 2022).

¹⁸ National Geographic is a famous American photojournalist magazine released every month by the National Geographic Society. "National Geographic." Wikipedia. https://en.wikipedia.org/wiki/National_Geographic (accessed August 21, 2022).

¹⁹ Science Channel is an American pay TV channel focusing on topics of programming and science related. "Science Channel." Wikipedia. https://en.wikipedia.org/wiki/Science_Channel (accessed August 21, 2022).

²⁰ Wayward refers to one's impulsive, unstable tendency in their characteristics and behaviors, especially those of kids. "Wayward." Merriam Webster. <https://www.merriam-webster.com/dictionary/wayward> (accessed August 21, 2022).

So he was like: why am I convincing you this is a great university? But by the end of the program he realized, no, I seriously did not know what the school was and I'm probably the perfect candidate to apply for this school. So at the end of the program—I'm about to walk into my senior year— my program director calls me and he goes: hey, I just want you to know that you need to apply to this school. And to show I have faith in you I'm going to pay for your application and I'm going to help coach you through the process. Now, it was like what do I have to lose at this point? It's his money, not mine. Like I know I'm not so sure. And my senior year just working with him and realizing all those weird curiosity experiments I did in my youth- actually was what made me a perfect candidate for MIT and that's what MIT was looking for. So I applied, and I will never forget this day because. Will Smith's²¹ *I Am Legend*²² premiered in theaters and my parents took me to go see it, so I wasn't standing at the computer, to see whether or not I got in. And when I came home I rushed to the computer and locked myself in the office and opened that email, and it was: congratulations, you're part of the MIT class of 2012. And I cried, because that was my ticket to going to a school that was going to allow me to be this curiosity hungry hamster. And I got to do it for four years. And my parents were in the other room—and this will be funny for the project— and they didn't think I was going to get in, so they bought a big cake that said: "Sorry, but screw them!" As the celebration cake. So they were pulling that out and putting it on the table when they heard me cry. They're like, you know, we're going to lift her spirits.

AD: Right, aww. That's so sweet.

NM: And then the baker decided like hey, she make it, so you may want to get like a second cake just in case. And the second cake just said congrats because it was so small—it was like a one- year-old's smash cake.²³ And my mom—my mom was like, okay I'm that's gonna feel out the situation; so we'll see. And I remember my mom coming in and when she came in, she was like: Baby, it's okay, they don't deserve you. I was like, no! I got in! I remember the panic on her face. She just left me there with all my emotions.

AD: Change the cake!

²¹ Will Smith is a versatile American artist who raps, acts, produces, etc. "Will Smith." Wikipedia. https://en.wikipedia.org/wiki/Will_Smith (accessed August 21, 2022).

²² *I Am Legend* (2007) is an action movie adaptation of the same name novel about a post-apocalyptic phase. "I Am Legend (film)." Wikipedia. [https://en.wikipedia.org/wiki/I_Am_Legend_\(film\)](https://en.wikipedia.org/wiki/I_Am_Legend_(film)) (accessed August 21, 2022).

²³ A smash cake is a petit birthday cake gifted to a one-year-old baby to destroy. "The Best Smash Cake Ideas for Baby's First Birthday Party." What to Expect. <https://www.whattoexpect.com/family/celebrations/first-birthday-smash-cake-ideas/#what> (accessed August 21, 2022).

NM: The yelling I heard in the kitchen. I was the first kid to apply for colleges, etc., etc. cause I was the oldest, so I like to say, I opened the door, that they were more cautious with the other two when they went through the process. But to go from this kid who thought hey I'm working so hard, because my teachers in my school are making me think the only school I can pray I can get into is our local State University and if I don't work this hard, I may get into the Community College²⁴ to go from that to I just got into MIT—Was astounding to me, and I spent the Christmas²⁵ break trying to figure out: “Oh crap. If I didn't have that program—How would I have known this was a possible pathway for me? So I spent that Christmas break working on a plan of: “I want to pay this forward the last semester that I'm here in my town. I want to do a little after school program for the middle school students who I was mentoring a little bit privately, but I wasn't doing anything really organized and I said, you know what: I'm going to get a group of 10 girls. And I'm going to do all the fun curiosity experiments I've enjoyed in the last 18 years, like the greatest hits—[laughs]—I like to call them. And I'm going to make it into an organized spring program to test out: “How do you expose students to the possibilities available to them and try to get them to understand high school is make or break, but not in a stressful way with SAT testing but hey when you're in high school apparently there's all these programs I didn't know about. Let's get your resume. Let's get your mind expanded to actually take advantage of those.

AD: Mm hmm.

NM: And that program was called Science Days of Tallahassee and that was my first foray.

AD: Wow!

NM: —into nonprofit after school philanthropic work, and that was just me trying to go out with a bang for my senior year, because I was just so thankful I got into MIT. And out of those 10 girls, three of those girls went to top 10 schools from my city, so Georgia Tech.²⁶ One got into MIT. I was like, “yes!!!!” [Laughs]—Another got into Stanford²⁷ which for my town for Tallahassee²⁸ or three Black girls to go to those schools—is one of the moments

²⁴ Community College is an institution for higher education. “Community College.” Wikipedia. https://en.wikipedia.org/wiki/Community_college (accessed August 21, 2022).

²⁵ Christmas is a worldwide cultural and religious celebration of Jesus Christ's birthday. “Christmas.” Wikipedia. <https://en.wikipedia.org/wiki/Christmas> (accessed August 21, 2022).

²⁶ Georgia Institute of Technology is a prestigious public university in the state of Georgia, USA. “Georgia Tech.” Wikipedia. https://en.wikipedia.org/wiki/Georgia_Tech (accessed August 24, 2022).

²⁷ Stanford is a prestigious private university in the state of California, USA. “Stanford University.” Wikipedia. https://en.wikipedia.org/wiki/Stanford_University (accessed August 24, 2022).

²⁸ Tallahassee is Florida's capital city. “Tallahassee, Florida.” Wikipedia. https://en.wikipedia.org/wiki/Tallahassee,_Florida (accessed August 24, 2022).

that made me realize when someone opens the door for you, it's amazing to prop that door open—and let other people come through. And once I got a taste of that it was hard to shake that taste. Of realizing: No matter how little you think you have—You have so much you can pass on to someone else.

AD: Mm hmm. That's really—

NM: Yeah. I'm like trying not to do the cheesy lines but.

AD: No, they're very heartfelt.

NM: That first group— They know there might be.

AD: And, was it intentional? For it to be all girls was that—

NM: [Nods head up and down]. My concern was: I knew what type of teenager I was and I had never dated a boy. I had very limited interactions with boys, and my mother was like, “Hey, do you want to do middle school boys?” I was like, “the flashbacks I’m having to middle school—I feel I’m not mature enough to deal with middle school boys *and* middle school girls.

AD: Mm hmm.

NM: Like, I didn't have any camp counselor—Like, I had limited camp counselor experience, but not enough that I would feel— I could deliver the same impact to boys and girls.

AD: Mm hmm.

NM: And I felt starting off with girls I could focus more on being a mentor and role model—kind of guiding-- My mom made the joke of: you're kind of Harriet Tubman²⁹ but for [laughs] college and science and engineering careers. I remember, she said that when I was 17. I was like, “You know what? That's a strong analogy. I don't think we've hit that threshold yet, but sure.” She was like, “No. You're guiding your family first, then you pick up strangers, then you make it open season.” And I was like, “You're right, I understand the challenges of middle school and high school girls better than I do for boys. Let me start off with what I know, then hopefully, I can expand to the great unknown of the other genders.”

²⁹ Harriet Tubman was a symbol of courage who, born into slavery, escaped and liberated enslaved people. “Harriet Tubman.” Wikipedia. https://en.wikipedia.org/wiki/Harriet_Tubman (accessed August 24, 2022).

AD: Mm hmm.

NM: So that was—that was how we made the connection from curiosity kid who just tore ish apart, but also was trying to learn everything possible when a new book or something came in the house to: I got into MIT— and then starting that nonprofit I would say, Post Science of Tallahassee and doing our first science fair, because my county didn't offer a science fair, so we also hosted a science fair to give kids that opportunity to know: “What was that process?” But to also have something on their resume—because one of the other things that upset me when I was in the MIT program called MITES,³⁰ was how many kids had a science fair. And science fair was something I only saw on the magic school bus that they did.

AD: Mm hmm.

NM: I didn't know it was a thing. Like ISEF— I didn't even know was a thing—Okay, so these girls are going to compete with ISEF finalists or international science—there we go: International Science and Engineering Fair (ISEF). If they're dealing with this level at 11th and 12th grade, they need to start doing science fairs in middle school. So even having like the science fair component—made me realize that if you just get 10 to 20 kids every year you're guiding through this, and maybe one or two decide to at least explore science and engineering, that's this pipeline I kept hearing about. And I'm like, I can do that, like I'm not gonna be able to do 300 kids, but I can do 10 to 20 in my spare time. Maybe one or two decide, “You know what? Ms. Netia is weird but she's cool enough that I kind of want to be her but do better than her—

AD: [laughs]

NM: I'll take this path.” And so, when I left Tallahassee and I graduated and I finished the first Science Days of Tallahassee, I approached MIT and said, “Hey, this is something I want to continue doing as a freshman at your school, and they were like, “Sure, we have grants for that.” I was like [makes shocked sound], I don't have to like beg Publix³¹ for a \$25 gift

³⁰ Minority Introduction to Engineering and Science at MIT (MITES) is a summer program to help foster minority senior high schoolers' engagement in science and engineering. “Minority Introduction to Engineering, and Science at MIT (MITES).” Broad Institute. <https://www.broadinstitute.org/education/diversity-initiatives/mites/minority-introduction-engineering-and-science-mit-mites> (accessed August 24, 2022).

³¹ Publix is a Florida-headquartered supermarket chain. “Publix.” Wikipedia. <https://en.wikipedia.org/wiki/Publix> (accessed August 24, 2022).

card, so I could get subs³² to feed my students like there's things, called grants [makes another shocked sound]. Okay!

AD: Yeah [smiles].

NM: So my first year of MIT I would say, “kicked my boo-tay.”³³ Um—I did two summer programs back to back before I went to MIT. And I still say—if I didn't do those two summer programs, I would have failed a pass or fail Semester, which is the first semester there. And when I tell people coming to the Institute. They're like, “It can be that bad.” And I'm like, “Listen. I have a student ID that I took month three of being at MIT. I look 10 years older than I do now, and that was over ten years ago, and I've gone through some things since.”

AD: [laughs] Right.

NM: I was not prepared, despite the two summer programs, for how hard MIT was gonna be, and every time I was faced with a challenge there, I kept going, “Is it worth it?” Like, I can go to community college, I had instate bagged for me going somewhere and just working as a barista at Starbucks.³⁴ Like, I had multiple escape plans, because there were multiple days those first four years I was like—[laughs hysterically]: I can't leave this room. I can't look my professor in the eye—and get another assignment I can't complete.

AD: [nods in agreement] Right.

NM: And MIT calls it drinking from the firehose.³⁵ You have to learn to pare down your curiosity and thirst for knowledge or you're going to drown.

AD: Mm hmm.

NM: And you have to learn how to like bend underneath the fire hose to take little sips, or stand above it and take little sips as needed—And I'm sooo hard-headed--that's just a

³² Subs refer to submarine sandwich as abbreviation. Dean, Sam. “The origin of Hoagies, grinders, subs, heroes, and Spuckies.” Bon Appétit. <https://www.bonappetit.com/test-kitchen/ingredients/article/the-origin-of-hoagies-grinders-subs-heroes-and-spuckies> (accessed August 24, 2022).

³³ Boo-tay refers to a butt. “Bootay.” Urban Dictionary. <https://www.urbandictionary.com/define.php?term=bootay> (accessed August 24, 2022).

³⁴ Starbucks is an American-originated large chain of coffeeshops. “Starbucks.” Wikipedia. <https://en.wikipedia.org/wiki/Starbucks> (accessed August 24, 2022).

³⁵ To drink from the firehose is a metaphor that refers to being bombarded with more information than one can handle. “Drink from a firehose.” Collins Dictionary. <https://www.collinsdictionary.com/submission/23301/drinkfromafirehose> (accessed August 24, 2022).

personality trait--for some people it took three weeks for them to realize, "I should tone down how much I want to drink." For me, it took a good two years before I finally broke down, it's like, "Oh, I figured out the SIP technique.³⁶ Yaaaaaaay." I can't do everything that's available, I have to focus. And that year two, when I was able to finally get my bearings about me,³⁷ I was like, "Okay, I couldn't do it the first year. Couldn't do it most of this year but, God willing, I'm going to do it this year. And MIT was so supportive; they're like, "Yeah, because we're trying to do more outreach MIT students are the perfect vehicle for it because you've gone through it. You know what challenges are lying ahead." And then I mentioned, "I want to do this for Black and Brown students in Boston." Because, from the little things I was able to do, I realized that most of these kids ride the red line and they don't know what's at Kendall.³⁸ Like they hear, "Kendall/MIT," but they don't know what MIT is—just like I didn't know what MIT was.

AD: Mm-hmm.

NM: But I was in—I was in the south, in kind of a rural city. Even though it's the state capital. You are five minutes from MIT—and maybe 10 minutes from Harvard University.³⁹ And both schools you're just like, "I don't know anything about them."

AD: Mm hmm.

NM: Literally in your backyard and you don't know. And so I pitched it to MIT like, "Hey, I want to do this program, like I have a track record, I did Science Days of Tallahassee, I've done some one off volunteer projects when I've had spare time. This gives me joy and fulfillment, and if you want me to stay sane on campus, I think I'll be a perfect candidate, because I need a sanity project.

AD: Mm hmm.

NM: And they were like, "Oh well, we don't have funding necessarily for Boston and Cambridge," which is the neighborhood MIT is a part of, "but we do have funding for

³⁶ Stable-isotope probing (SIP) is a technique used to track nutrients in microbial ecology. "Stable-isotope probing." Wikipedia. https://en.wikipedia.org/wiki/Stable-isotope_probing (accessed August 24, 2022).

³⁷ To get/find one's bearings is to find out one's positions concerning their surroundings or their next steps. "To get your bearings." Collins Dictionary. <https://www.collinsdictionary.com/us/dictionary/english/to-get-your-bearings> (accessed August 24, 2022).

³⁸ Kendall is an area in Florida. "Kendall." Wikipedia. https://en.wikipedia.org/wiki/Kendall_Florida (accessed August 24, 2022).

³⁹ Harvard University is an elite Ivy League private research university, located in Massachusetts. "Harvard University." Wikipedia. https://en.wikipedia.org/wiki/Harvard_University (accessed August 24, 2022).

Brazil.”⁴⁰ And I went, “That doesn't make sense to me, but sure—I guess. I'm not paying for it, so sure.”

AD: Mm hmm.

NM: And it bothered me, because, at first, I was going, “Maybe they're used to people trying to volunteer abroad. Because they're trying to do something—interesting and I noticed with a lot of my peers—they don't want to do things in their own backyard because they've already like been there—like been there, done that.”

AD: Mm hmm.

NM: So I initially took this as “Oh, they probably don't have a lot of interest of doing stuff in their own backyard. Maybe if I do this Brazil thing, they'll realize that I'm really serious about this and then they'll fund maybe with a grant or what have you, for me to do something local.”

AD: Ahh.

NM: Totally fine. I spent six months learning Portuguese⁴¹ in a very intensive language course, which I do not recommend to the faint of heart. [laughs] They go, “You will be able to work in a Brazilian science laboratory in these six months.” And you're going, “Perfect! I'm a great learner. I love fast paced things.” [Shakes head side to side laughing slightly]. If anything was soul ending—it was between differential equations⁴² and trying to learn Portuguese in six months.

AD: Wow.

NM: Would be the two things I would say of my undergraduate career that—I questioned the universe. And why.

AD: [Laughs]

⁴⁰ Brazil is a Southern American country. “Brazil.” Wikipedia. <https://en.wikipedia.org/wiki/Brazil> (accessed August 24, 2022).

⁴¹ Portuguese is a language of the Indo-European language family. It is the official language of Brazil, Angola, and so on. “Portuguese Language.” Wikipedia. https://en.wikipedia.org/wiki/Portuguese_language (accessed August 24, 2022).

⁴² Differential Equation is a type of mathematical equation that conveys the relationship between unknown functions and their derivatives. “Differential Equation.” Wikipedia. https://en.wikipedia.org/wiki/Differential_equation (accessed August 24, 2022).

NM: I still [laughs] had not learned to take those tiny sips from the firehose. But learning Portuguese and doing the Brazil trip, I didn't make really public, but was a private childhood dream of mine, a roundabout way to get to one of my bucket list items, which was to visit Angola.⁴³ So, Angola is a Lusophone⁴⁴ country on the west coast of Africa, and the reason why I wanted to visit a golden was because my idol when I was a kid was Queen Nzinga of Angola.⁴⁵

AD: Mm hmm.

NM: And she was one of the few rulers who were able to keep down the Portuguese colonizers during the 14 to 1500s and she fought till I believe her late 80s if I'm not mistaken. So she was 16, due to the fact her brother committed suicide, because of the ongoing raids on the capital,⁴⁶ etc. And I remembered reading her book, when I was younger and I made a promise to myself: Every time there was a dark moment when I was in middle school or high school which paled in comparison to adulthood, but as a kid it's like—crushing when you get like a 32 on an algebra test. You're like, "I'm never gonna get into college. My life is ruined! I better learn how to flip burgers at McDonald's⁴⁷ cuz I'm not going to do anything else!" That's your middle school vibe, when you think there's not a lot of possibilities. And every time I'll have one of those moments I go back to that book of Queen Nzinga of Angola and go, "Hey, her brother was kind of outta the picture at 16, and her dad was kidnapped. If she could survive that, I can survive failing this algebra test."

AD: Mm hmm.

NM: And the fact she not only survived, but she thrived. She took runaway slaves from other kingdoms, and she built what we would now consider a math science and technology Mecca.⁴⁸ So they were learning high-level geometry and algebra and doing pioneering work

⁴³ Angola is a coastal Southern African nation. "Angola." Wikipedia. <https://en.wikipedia.org/wiki/Angola> (accessed August 24, 2022).

⁴⁴ Lusophone refers to Portuguese-speaking people and countries. "Lusophone." Wikipedia. <https://en.wikipedia.org/wiki/Lusophone> (accessed August 24, 2022).

⁴⁵ Queen Ana Nzinga, with her military and political intelligence, led Ambundu Kingdoms of Ndongo then Matamba which are presently located in Angola, and fought for liberation from the Portuguese Empire. "Nzinga of Ndongo and Matamba." Wikipedia. https://en.wikipedia.org/wiki/Nzinga_of_Ndongo_and_Matamba (accessed August 28, 2022).

⁴⁶ Around 1923, the Portuguese broke the concord with Ndongo and led raids for loots and slaves into Ndongo's land. "Nzinga of Ndongo and Matamba." Wikipedia. https://en.wikipedia.org/wiki/Nzinga_of_Ndongo_and_Matamba (accessed August 28, 2022).

⁴⁷ Mc Donald's is a universal chain of fast-food restaurants. "McDonald's." Wikipedia. <https://en.wikipedia.org/wiki/McDonald%27s> (accessed August 28, 2022).

⁴⁸ Mecca generally refers to a place of mass gathering for a specific cause. "Mecca." Oxford Advanced Learner's Dictionary. <https://www.oxfordlearnersdictionaries.com/us/definition/english/mecca> (accessed September 28, 2022).

in calculus and basic engineering principles that upon her death, I remember the quote that stuck with me was one of the Danish Nobles⁴⁹ stated that, “If she was allowed to continue to thrive, Rwanda or the capital of Angola would have had a capital city that will rival anything in the northern region of Europe.” And this was like in the 1560s. So this was: “We have money from colonization--in order to build some very extravagant buildings and fund inventions and forays into science engineering.” And to hear someone take a situation and morph it into an opportunity for all to benefit and advance as a society. And what happened in the last 50 years with Angola. I was kind of like, “I know I can't do much.

But a bucket list item to go, thank you for the inspiration was, I wanted to go to Angola.” So it's like, “Okay, I'll do Brazil.” Like it's a weird sidestep in my journey, but I get to learn Portuguese for free. I get to go to a Lusophone country so I'm going to have real world practice with Portuguese.

And I'm building my resume so I can do things like this. Cool! Never been abroad before. No one in my family has been abroad before. I have six months to figure it out—piece of cake.⁵⁰ [sighs] As if that wasn't enough, my father had been battling cancer since my senior year of high school.

AD: Mm hmm.

NM: And it pretty much was like: the final six months of his life was when I started that semester as well.

AD: Mm hmm. Oh you said... that's right.

NM: Yeah I—I would say that semester, and the years following, was when you have your identity crisis of, “What's the point of being a good person if these things happen to you?” Well for me personally. And during that time, my dad was having more end-of-life conversations with me, and five days before I was supposed to get on that plane to go to Brazil, I came home because I just finished up finals in my family didn't really know he was in his last week or two. So when I came home, he was in the hospital literally the same day, I went, “Wait, what? Like did he get too excited? Like, what happened?”

AD: Mm.

NM: And that's when we were told, he had less than four days to live.

⁴⁹ Danish Nobles refer to royal people in the monarchial Kingdom of Denmark. “Danish nobility.” Wikipedia. https://en.wikipedia.org/wiki/Danish_nobility (accessed August 28, 2022).

⁵⁰ The idiom “piece of cake” refers to something easy and simple to do. “A piece of cake.” Cambridge English Dictionary. <https://dictionary.cambridge.org/us/dictionary/english/piece-of-cake> (accessed August 28, 2022).

And that's when my dad started having his real last conversations with me. And the last conversation he had with me was how, when he was a young boy, he was 16 and he heard about MIT. And um—He wanted to apply so bad, but you had to have a letter from your guidance counselor. And so, he went to his guidance counselor and said, “Hey, I want to apply to MIT. I’m a great student. I’m your number one student here. Can you write me the letter of recommendation?” And his guidance counselor said, “No, you will be a far better garbage collector than a MIT student.” And so my dad tried every trick he could find. To try to get his application in; and MIT told him that, without a guidance counselor's letter of recommendation—they couldn't review his application. And my dad spent a good six years harboring that resentment, and working odd jobs in Southside Chicago,⁵¹ in order to save up enough money to go to the Illinois Institute of Technology,⁵² because once he grew-- once he got to a certain age, 24 I believe--he didn't require a guidance counselor's letter of recommendation.

AD: Mm hmm. Right, yeah. [nods]

So, I didn't realize that my dad became a psychologist, because he couldn't go to MIT and the only major they were funding at that time was psychology—because of the drug epidemic that was happening in the 80s. And that was the only way my dad was able to get into the Illinois Institute of Technology and he said, “It’s not MIT, but it's as close as I’m going to get.” And he had such a resentment about that whole experience he never mentioned—like I didn't know where my dad went to school, I thought it was such a traumatic experience—I didn't want to bring it up, I know you have a degree from somewhere, [laughs] But you won’t tell me, and he never mentioned MIT in our household and so when I got that postcard—that—my 11th grade year I didn't understand, why he was so passionate about I was going, because he thought that was the only opportunity he was going to see what this MIT was about.

For him personally and—and the last thing he said before he passed was, “You know, when you were born, I didn't resent you—I was upset you weren't a boy. Cuz he had all girls. And he said, “Because I thought, if I couldn't go to MIT, at least my son could go to MIT.” He goes, “when you were born,” he goes, “I loved you to pieces, but I knew the Lord was laughing at me, because he wasn't giving me a son, it was basically saying you're never going to get to see MIT. And he said, “and for the Lord to act like this is a great sitcom.⁵³ [laughs]

⁵¹ Southside Chicago is an area located to the south of Chicago, a large city in the Midwestern state of Illinois, USA. “South Side, Chicago.” Wikipedia. https://en.wikipedia.org/wiki/South_Side,_Chicago (accessed August 28, 2022).

⁵² Illinois Institute of Technology is a private university in Chicago. “Illinois Institute of Technology.” Wikipedia. https://en.wikipedia.org/wiki/Illinois_Institute_of_Technology (accessed August 28, 2022).

⁵³ Sitcom, or situation comedy, refers to a subcategory in comedy that typically features a fixed group of characters throughout the series. “Sitcom.” Wikipedia. <https://en.wikipedia.org/wiki/Sitcom> (accessed August 28, 2022).

And to have you be my Queen Elizabeth⁵⁴ and King Henry⁵⁵ going ‘she can't be a good leader! Pssstt!’ [does hand motion upwards while laughing]. Despite everything I threw in your way, you still found a way there without me telling you it was possible.”

AD: Wow.

NM: And he said, “and for that, I now have the McCray name in the MIT Brass Rat which is our famous super bowl ring to show that you survived MIT. With an escape map included inside. And he was like, “For my daughter, to make sure my name is on the inside of that ring.” He's like, “I'm more than proud.” And I went. He died two days later and just slipped into a coma that evening. And I had to sit there, because he still also forced me to get on that plane to Brazil, so I buried him the next day, was on a plane to Brazil by myself. I said, “Ooh, this is all the trauma in one week.”

AD: Yeah. Oh Netia.

NM: But as I sat on that plane, I had to go, how many other black boys and girls could have been MIT engineers, scientists, what have you, but because there was that one gatekeeper, unlike me, who had someone who opened the door.

AD: Mm hmm.

NM: How many of my dads—are just sitting there with talents being wasted. because someone just thought of the way they look, their background, or whatever—they're not going to open that door. And there's the Nick Kristof⁵⁶ quote of, “talent is universal, but opportunity is not.”

AD: Mm hmm.

NM: And in my dad's will, he talked about how he had first wanted the will, because he thought was going to be like at least successful enough that his kids will be taken care of; he wouldn't have medical expenses to worry about when he passed; and all of that. He wanted to dedicate his wealth to creating a science and technology school that could be a shoo-in for kids to go to those places and have the opportunity to change the world.

⁵⁴ Elizabeth II is the Queen of the United Kingdom, British Monarch. “Elizabeth II.” Wikipedia. https://en.wikipedia.org/wiki/Elizabeth_II (accessed August 28, 2022).

⁵⁵ King Henry ruled England, first in 1100. “Henry I of England.” Wikipedia. https://en.wikipedia.org/wiki/Henry_I_of_England (accessed August 28, 2022).

⁵⁶ Nicholas Kristof is a Pulitzer winner who usually contributes to journalism sites, such as CNN and the New York Times. “Nicholas Kristof.” Wikipedia. https://en.wikipedia.org/wiki/Nicholas_Kristof (accessed August 28, 2022).

AD: Wow. Amazing.

NM: And I went, “You know—you don't need to dedicate a whole fortune for that to happen.” And I went back to my Science Days of Tallahassee days of you can just do it with small groups of kids. It doesn't have to be a whole thing.

AD: Mm hmm.

NM: And so, while I was in Brazil, I was chilling, just doing my research on nanotubes-- carbon nanotubes⁵⁷-- like looking to see if we can make the next iron man suit—because that's what you do when you're an Engineering undergrad. And I remember, there was one day at the lunch table I was asking everyone like, “What jobs are you looking for?” to a couple seniors at the table. They're like, “Oh I'm going to work for Google⁵⁸ Brazil.” “I'm going to work for IBM⁵⁹ Brazil.” I'm like, “You're in a physics department and you're in a mechanical engineering department.” And I know Google Brazil only has 26 positions in Belo Horizonte,⁶⁰ Rio De Janeiro,⁶¹ and São Paulo⁶² at this time. I'm like, “Okay, if one person from every state university applies for that position, that's almost 100 people applying for each seat available at Google Brazil, “What's going to happen to the rest of you all?” “Oh well, you know—we don't know yet.” I was like, “Well, you're researching an iron man suit why don't you take that research and create a company spinoff.” And this is where I didn't realize MIT had tainted me a little bit, because they're all looked at me and go, “An entrepreneur? No, poor people do that.” And I was like, “Oh—okay, I guess I'm poor, because that's all my family did. Huh?? [sarcastically]” And just the disdain of, “Why would we take research and put blood, and sweat and tears into turning that idea into like a company. Maybe do some research and go” —holy crap, the same nonsense we deal with in the U.S.—everyone's dealing with.

AD: Mm hmm.

⁵⁷ Carbon nanotube is a tube with nanometer-long diameters. “Carbon Nanotube.” Wikipedia.

https://en.wikipedia.org/wiki/Carbon_nanotube (accessed August 28, 2022).

⁵⁸ Google is a worldwide technology company whose services cover a range of areas, such as computing, AI, e-commerce, etc. “Google.” Wikipedia. <https://en.wikipedia.org/wiki/Google> (accessed August 28, 2022).

⁵⁹ International Business Machines Corporation, or IBM, is a universal information technology company. “IBM.” Wikipedia. <https://en.wikipedia.org/wiki/IBM> (accessed August 28, 2022).

⁶⁰ Belo Horizonte is a metropolitan big city in Brazil. “Belo Horizonte.” Wikipedia. https://en.wikipedia.org/wiki/Belo_Horizonte (accessed August 28, 2022).

⁶¹ Rio De Janeiro is a southeast city in Brazil. “Rio De Janeiro.” Wikipedia. https://en.wikipedia.org/wiki/Rio_de_Janeiro (accessed August 28, 2022).

⁶² São Paulo is a southeast cosmopolitan and developed city in Brazil. “São Paulo.” Wikipedia. https://en.wikipedia.org/wiki/São_Paulo (accessed August 28, 2022).

NM: My parents didn't want me to start a business, because they knew it's a survival technique.

AD: Interesting.

NM: It's not a—it's a cool thing to do. It's a survival technique when you can't get a proper job with stability. But at MIT everyone has a safety net,⁶³ so you think that way, because the threat of starving or losing your house never really comes into the picture. You're really about your idea of being the next Bill Gates⁶⁴ or Steve Jobs.⁶⁵

Well, everyone else's looking at that and going, “Yeah, but the rent man doesn't care if you're working on an idea. You still have health insurance and all of that to deal with.” And I said, “Hmm. Is that the reason, a lot of kids also don't do science and engineering—or their parents don't encourage that?” And so that summer I just spent interviewing people and asking those questions and realizing there—A long time in the US and around the world, we keep thinking kids aren't interested in science and engineering because math is “hard,” and all of these things. When I remove my childhood from it, it seems a lot of the parents—the 10 plus years on I've been doing this—the reason they don't encourage it is because they see it as a very expensive upfront cost and they're not sure of return on investment.

AD: Hmm

NM: Just like entrepreneurship. My first microscope,⁶⁶ a work colleague of my dad's purchased. My dad didn't purchase it. It was \$115 at Toys R Us.⁶⁷ I remember it clearly.

AD: Wow.

NM: And I remember dissecting worms and clams from the beach trying to figure out like how did they operate, because again—before the age of the Internet—And I remembered

⁶³ Safety net refers to one's support system concerning financial, mental, and/or physical spheres. Social safety net particularly cites any assistance for underprivileged, impoverished, marginalized groups or individuals. “Social safety net.” Wikipedia. https://en.wikipedia.org/wiki/Social_safety_net (accessed September 24, 2022).

⁶⁴ Bill Gates is the founder of Microsoft, one of the five biggest American information technology companies. “Bill Gates.” Wikipedia. https://en.wikipedia.org/wiki/Bill_Gates (accessed August 28, 2022).

⁶⁵ Steve Jobs co-founded Apple, one of the five biggest American information technology corporations, and Pixar, a renowned digital animation studio within Walt Disney Company. “Steve Jobs.” Wikipedia. https://en.wikipedia.org/wiki/Steve_Jobs (accessed August 28, 2022).

⁶⁶ A microscope is a tool used in laboratory to view and investigate very small objects including cells and so on. “Microscope.” Wikipedia. <https://en.wikipedia.org/wiki/Microscope> (accessed August 28, 2022).

⁶⁷ Toys “R” Us is an American seller of toy and baby products. “Toys “R” Us.” Wikipedia. https://en.wikipedia.org/wiki/Toys_%22R%22_Us (accessed August 28, 2022).

my dad going, “Oh yeah he's flexing, because his kids are interested in this stuff, but he knows you're interested in it. And you doing something with this microscope brings a smile to his face, but he knows we are trying to build a safety net, so we're not going to splurge \$115 on a microscope. And as an adult, I have nieces and nephews now, if I had to buy a microscope kit for each one of them—yeah, nooo. I'm not fostering that— that's a very expensive Christmas.” And seeing how a parent going into a store, a parent going into a school, and realizing the science club has a \$50 sign up fee.

AD: Mm hmm.

NM: All the science kits and products have this enormous upfront cost that's a barrier to entry. So by the time you get to parents and telling them, Coding's the future.” And, “Your child should be an engineer.” “They should be a scientist.” They're like, “That's great. But how are you making that accessible for me to even allow my child to pursue it? For it to help them in adulthood?”

AD: Mm hmm.

NM: And my mom, because she's amazing and she can break down anything, so I get that gift from her on communications, she said, “When I see a football player get a \$50 million dollar contract after their parents invested 10, 12 years into that skill of them being a quarterback⁶⁸ or frontline⁶⁹—I don't know enough about football—I should have just stuck with quarterback. [laughs]

AD: [laughs] I won't be able to help you either.

NM: I think it's a linebacker?⁷⁰ I was trying to-- [laughs] trying to pretend I had this— [laughs]. When you see that kid get the \$50 million NFL contract, parents can make the connection of, “Oh it's sucks, I have to pay a \$50 equipment fee every year. But the potential return on investment could be \$50 million dollars, if my kid is one of the chosen ones. Just like the lottery, I can at least see some return on investment.” While in STEM and in entrepreneurship and all of these things we don't think people are interested in, it's the

⁶⁸ Quarterback is an offensive position in football. “Quarterback.” Wikipedia. <https://en.wikipedia.org/wiki/Quarterback> (accessed August 28, 2022).

⁶⁹ Frontline here refers to offensive line position that prevents the opposition's defense in American football. “American Football Positions.” Wikipedia. [https://en.wikipedia.org/wiki/American_football_positions#Offensive_\(interior\)_line](https://en.wikipedia.org/wiki/American_football_positions#Offensive_(interior)_line) (accessed August 28, 2022).

⁷⁰ Linebacker is a versatile position playing behind the defensive line in American football. “American Football Positions.” Wikipedia. https://en.wikipedia.org/wiki/American_football_positions (accessed August 28, 2022).

same problem of, “I just see upfront costs and risks; I don't see the ROI⁷¹ or benefit, or the likelihood someone like me can benefit.”

AD: Mm hmm.

NM: So after that summer, and doing my initial research, I came up with Mbadika.⁷² And Mbadika means “idea” in Kimbundu. Kimbundu is a language of Western Angola, and I named it that because I was like, “Well, I’m starting to feel like I did in middle school when I was suffering going through my first real math and science classes.” And I still feel like I need to call upon Queen Nzinga, and I’m surrounded by Portuguese, so I’m in the zone right now. And in a fit of, “I had a week off from work,” [laughs] I was just going through the Kimbundu-to-English dictionary for like words that sound Start-Up-y and inspirational—and I came across the Mbadika, and it's just that idea and went, Boom! [snaps fingers] That's it! Because I wanted to be about ideas and those who create them.

AD: uh huh.

NM: I wanted Mbadika to foster the ideas that don't get those platforms, or the spotlight, but are really—adequate solutions to the challenges we face in our communities or in our personal lives. But I also wanted it to be a place to support people behind those ideas, who also don't get the supports to realize how brilliant they are.

AD: Mm hmm.

NM: And so that summer of grief, and major transitions, and transformations. That’s when Mbadika was born.

AD: Wow.

NM: Now, I didn't know what I was going to do. I just knew: I have all this information; What's the solution? And when I came back to campus after my dad's passing in that summer I said, “Hey, I did the Brazil thing. Would you guys give me a mini grant to do this with some kids locally. with this program I have in mind. I’m going to start with entrepreneurship, because that's the sexy thing right now.

⁷¹ ROI stands for Return on Investment that measures the time period for an investment to pay back for itself, so ROI is used to assess an investment’s efficiency. “Return on Investment.” Wikipedia. https://en.wikipedia.org/wiki/Return_on_investment (accessed August 28, 2022).

⁷² Mbadika is a non-profit organization supporting ideas and their innovators in STEAM. “Ideas and those who create them.” Mbadika. <https://mbadika.org> (accessed August 28, 2022).

AD: Mm.

NM: But the core of it's going to be STEM.⁷³ But we're going to use entrepreneurship as a hook. Because a lot of these parents are hearing about all these entrepreneurs and they're going, "Wait, you're not starving? Like this isn't because you have to feed the kids today? Like this is a job?" We're going to use that as a hook for the program. We're going to do these workshops, but the core of it is showcasing how science, technology, engineering, mathematics help you take your ideas to reality. And that's the beauty of STEM; it's not, "Oh, I get to feel important or look like Einstein."⁷⁴ Like the important part of STEM is to create order in chaos—and create solutions to challenges facing us, or anyone around us. But I'm like, "No one thinks that's sexy. Entrepreneurship, though, and making a boat ton of money—that's sexy." [laughs] So, we did our first programs in Boston. They were successful enough that we were actually called from my university that I did my research initially that summer—what they're like, "Hey, could you bring that program here next summer?"

AD: Wow.

NM: I was like, "Sure! No problem—"

AD: So, this was your junior—this was during your junior year?

NM: This was during my junior year.

AD: Okay.

NM: So, my junior year we did local programs, then I went back to Brazil that summer, and I had my first cohort of high school students.

AD: Oh, wow.

NM: So, the pilots⁷⁵ I did beforehand were elementary/middle school students, kind of hooking them in with entrepreneurship, but they had to [winks one eye vigorously before

⁷³ STEM stands for Science, Technology, Engineering, and Mathematics academic fields. "Science, Technology, Engineering, and Mathematics." Wikipedia.

https://en.wikipedia.org/wiki/Science,_technology,_engineering,_and_mathematics (August 28, 2022).

⁷⁴ Albert Einstein was a renowned genius physicist with his most influential development of relativity and quantum mechanics theories. "Albert Einstein." Wikipedia. https://en.wikipedia.org/wiki/Albert_Einstein (accessed August 28, 2022).

⁷⁵ Pilot refers to an experimental phase to test and assess something before extending it to larger scales. "Pilot Experiment." Wikipedia. https://en.wikipedia.org/wiki/Pilot_experiment (accessed August 28, 2022).

saying] *design and develop a product to sell*—utilizing their engineering and science skills. I brought the same program for high school students because they're like, “Oh no, our middle school students of trash.” Like they're not gonna pay attention to you and your bad Portuguese. The high school students know the return on investment of listening to you. Let's do this for high school. So, the university hosted us for the high school program, and we named that program Kasahorow because Kasahorow which means “egg.” Because it was the first serious six-week program that was coming out of Mbadika. I was really big into my names back then. [laughs]

AD: Yeah—no, I love them.

NM: And that summer I realized, “Oh wow, like this idea actually could have some legs to it.” And the following year, which was my senior year, we expanded into Mexico⁷⁶ and Chile⁷⁷ as well as into other neighborhoods of Boston. So I was still a full-time student, but I was starting to get some track records and some legs underneath Mbadika at the time.

AD: Yeah.

NM: And that's when the story kind of pivoted really quickly. Because I kept feeling exhaustion. And I couldn't just get my body up and running, and I kept thinking, “It's my schedule, like I'm doing a lot, until I couldn't get out of bed one day and—

AD: Was this during your senior year?

NM: This was during my senior year.

AD: Okay.

NM: And it got to the point that MIT was like, “Hey—we know, like you've been having this issue for the last two years; we thought it was like grief from your father passing. But now it seems to have given seems to have gotten progressively worse. Like we know you're doing a lot, so we know it's not lack of motivation.

AD: Mm hmm

⁷⁶ Mexico is a country in Central America, neighboring the US to the south. “Mexico.” Wikipedia. <https://en.wikipedia.org/wiki/Mexico> (accessed August 28, 2022).

⁷⁷ Chile is a nation situated in South America. “Chile.” Wikipedia. <https://en.wikipedia.org/wiki/Chile> (accessed August 28, 2022).

NM: But something's not right and until you figure that out"—because they were thinking it was cancer, but nothing was popping up. Heart disease, nothing was popping up. They were like, "Well, we think you should go to a less demanding major. Matter of fact, we don't *think*—we're going to strong arm that decision."

AD: I see.

NM: [sighs] So, I switched from physics and mechanical engineering—to political science, because they felt that that academic load was more manageable, given all of my responsibilities and my health at the time.

AD: Wow.

NM: And then I was forced to take a break, because I just wasn't able to finish the year because I got so bad. But I'm not gonna—not going to be a negative Nancy⁷⁸ about it because they still allowed me to do my work with Mbadika. And they thought maybe that would help—keep me sane—while I was trying to figure out the health stuff. So, I took an extra two years to finish that last year [laughs]. So, even though it says I graduated in 2012; I actually graduated in 2014.

AD: I see.

NM: And at that moment I just felt like a huge failure because I couldn't figure out why my body was betraying me like this and I thought, "Maybe I'm weak minded—like, what am I doing wrong?"

AD: Mm hmm. Mm hmm.

NM: But now looking back on it, that was a blessing, because it allowed us two extra years of funding, and safety from MIT. So those years, they were like, "Hey, you can still do your Mbadika stuff because it makes us look good. We're not going to stop that, but we want you to try to take it a little easy on the academic stuff that's probably not going to be as big of a ROI for your future—

AD: Mm hmm.

⁷⁸ Negative Nancy is a slang term that refers to an overwhelmingly pessimistic person. "negative Nancy." Wikipedia. https://en.wiktionary.org/wiki/negative_Nancy (accessed August 28, 2022).

NM: —as Mbadika. And having those additional two years, we were able to expand into sub-Saharan Africa.⁷⁹ We were getting partners like the Clinton Foundation⁸⁰, and the State Department,⁸¹ and I was like, “Oh okay, I’m mad. But also, like—we’re making great progress [laughs].”

AD: Right.

NM: So, professionally I was like, “Okay, it could be better. Could be better if I could figure out this health stuff—could be better.” But at the same time, it was like, “Well, we’re making such an impact. If this is the sacrifice: I’m okay.” Especially because I was on a full ride scholarship, so it didn’t cost me—nothing but time and sanity.

AD: Mm hmm.

NM: For those extra two years but—

AD: Did you stay in the Boston area during that time?

NM: Yes, so it was in the Boston area when I was taking a lighter load of classes, and then I would spend like three months or four months like in South Africa or in Brazil, looking after like—our workshop development and partners who were delivering those workshops. As well as starting our first attempt at a product line in Cape Town,⁸² because we wanted to create accessible science kits, to make the jobs of our workshop facilitators easier.

AD: Mm hmm.

NM: Because one thing we quickly ran into is: Science kits are bloody expensive, no matter where you are. And the more there’s an income or wealth gap, the worse it is. And the same problems I was having doing science kits for kids in Boston, was the same problem we were having in Cape Town, but *worse*, cause of tariffs⁸³—[sighs]. So, having to remix

⁷⁹ Sub-Saharan Africa is an African region located to the south of Sahara desert. “Sub-Saharan Africa.” Wikipedia. https://en.wikipedia.org/wiki/Sub-Saharan_Africa (accessed August 28, 2022).

⁸⁰ The Clinton Foundation is a non-profit organization founded by former US President Bill Clinton. “Clinton Foundation.” Wikipedia. https://en.wikipedia.org/wiki/Clinton_Foundation (accessed August 28, 2022).

⁸¹ United States Department of State is an international affairs department of the U.S. federal government. “United States Department of State.” Wikipedia. https://en.wikipedia.org/wiki/United_States_Department_of_State (accessed September 28, 2022).

⁸² Cape Town is a capital city of South Africa. “Cape Town.” Wikipedia. https://en.wikipedia.org/wiki/Cape_Town (accessed August 28, 2022).

⁸³ Tariff is a tax on importing or exporting goods. “Tariff.” Wikipedia. <https://en.wikipedia.org/wiki/Tariff> (accessed September 17, 2022).

everything I was used to having access to in the US with my team in South Africa, to the point we were we had a science kit about electronics, and it was one battery, some nails and wires, and a piece of wood in Cape Town, because it costs the exact same as some LEDs,⁸⁴ electric wires, and breadboards⁸⁵ in the Key West and trying to remix it that the lesson was still being taught—and still provided access to that knowledge, was—was a whirlwind⁸⁶ but it helped me professionally as a product designer and developer, like all the weird circular pathways still helping later on in the journey. So that was until 2014, and in 2014 I graduated from MIT finally, finally! And at that point, it could have went two ways: I could have moved to South Africa, or moved to Brazil and Mexico, where the cost of living was lower so we could have done more with the money, or, I could stay in Boston and I hee-ed and haw-ed with my team about this and my mom—because I was very concerned. She was getting up there in age—now my dad's age when he wasn't doing the best—and I was a little concerned about her health going downhill and I wasn't in the country to provide support.

AD: Mm hmm.

NM: And after some talks I was on the T, which is the subway line through Boston, and I remember one of my former students was on there, and she says, “So Miss Netia, you are coming back this summer to teach us, right?” I was like, “Oh me? I’m supposed to be in South Africa, this summer.” And I thought about it, to that moment at MIT was like, “Oh well, we can't do anything for the kids of like Boston but we’ll pay for you to go to Brazil.” And I had that moment of I got slapped across the face by my past self of, “Are you not doing the same thing to this young girl that MIT was doing to all these kids by limiting funding or what have you, and providing more funding for the international projects and almost zero funding for local projects?”

AD: Mm hmm.

NM: And I said, “Okay. I’m going to have to make the call.” And so, I decided that I was going to be Boston-based and Mbadika’s headquarters were going to be Boston-based, because I needed to pay it forward to a community that allowed for me to be there for six years, trying to get my stuff together and learn as much as I could.

⁸⁴ LED stands for light-emitting diode which is a semiconductor source of light. “Light-emitting Diode.” Wikipedia. https://en.wikipedia.org/wiki/Light-emitting_diode (accessed September 17, 2022).

⁸⁵ Breadboard is a tool based on which samples of electronic circuits are built. “Breadboard.” Wikipedia. <https://en.wikipedia.org/wiki/Breadboard> (accessed September 24, 2022).

⁸⁶ Whirlwind figuratively refers to an everchanging or energetic process. “Whirlwind.” Cambridge Dictionary. <https://dictionary.cambridge.org/us/dictionary/english/whirlwind> (accessed September 17, 2022).

AD: Mm hmm.

NM: I owed that community something, and so that's how Mbadika was based in Boston and since 2014/2015 we've been in Boston ever since.

AD: Wow.

NM: Through highs and lows.

AD: So, what then is the arc between your health up to 2014, and then let's connect the dots maybe to long-Covid which, through that experience has become, it seems like, another branch of the work that you do.

NM: Yes, this is—I thought my father's section was going to be the tough section—I'm like, "Oh, this—this is going to be up there." I think, when I was dealing with my health issues at MIT, I allowed for the medical mystery that was me—

AD: Mm hmm.

NM: —to be reflected inward; and what I mean by that is, I kept thinking, it was because I wasn't working hard enough. I didn't know how lucky and fortunate I was. And I obviously am not doing all I can do, because everyone else is saying I can do it. Why can't I get out of bed some mornings—and they were like, "Oh, it could be depression or anxiety." And I kept thinking, "but I don't feel depressed; like it—it feels physical to me, but the physical part is making me feel crazy." Cause I'm like, "Why can't my brain make my back turn over, or my body move? Why are there some days I can have a conversation with somebody. and it's almost like I ran a marathon? I—I don't get it. I tried everything caffeinated. I tried five-hour energy.⁸⁷ I tried cold showers. I tried doing a keto diet⁸⁸ before it was cool. I tried everything I could." And I still—it seemed-- it happened twice and every time it happened, I would get really sick for a week, like a really bad flu. And then for two years, it was as if I would have these horrible crashes, physical crashes. And everyone kept telling me, it was because it was burnout,⁸⁹ you know it's MIT—a whole range of excuses. But as soon as I left MIT and forced myself to rest for six months, because I was like I can't—I can't start my

⁸⁷ Five-hour energy is a dietary energy-boosting drink. "5-hour Energy." Wikipedia. https://en.wikipedia.org/wiki/5-hour_Energy (accessed September 17, 2022).

⁸⁸ Ketogenic diet is a diet style that focuses on low-carbohydrate while maintaining high-fat and adequate-protein. "Ketogenic Diet." Wikipedia. https://en.wikipedia.org/wiki/Ketogenic_diet (accessed September 17, 2022).

⁸⁹ Burnout is an emotional, physical, and mental state when ones constantly feel exhausted and unmotivated. "Burnout: 3 Signs To Look For." WebMD. <https://www.webmd.com/mental-health/burnout-symptoms-signs> (accessed September 17, 2022).

adult life, post MIT, feeling this horrible. I took my savings, and I took a six-month break: all of it stopped. Like it was the first time I felt normal like I did at 18. And I was like, “Oh, it could have been burnout: that’s what the problem was.” And I continued powering through for the next five years until 2020. [long pause] And I never talked about my health issues again because I thought it was just burnout, it had no—it was not going to come back up and rear its ugly head later in life.

AD: Right.

NM: Ha ha ha! 2020 rolled around, Mbadika was doing great. We finally hit six figures in donations and revenue. We’re still surviving, despite changes in government administration and a couple overthrows. People in jail [sips tea].

We were still doing pretty good, to the point, I was like, “You know what? I’ve done this for about 10 years now—

AD: Wow.

NM: —Dang. We should celebrate that in 2020.” I was gonna—Oh, oh how naïve [laughs]. I started off my 2020 with, “Yeah, there’s this virus going around I’m hearing from my colleagues in Wuhan.⁹⁰ Like, this is probably going to hit late March early April.” So, we had made plans for that, like wasn’t like it caught me off guard.

AD: Mm hmm.

NM: But then, mid-March happened, we had our regional lock down here in Boston and I was here with my partner and um, about week two I was just exhausted. But exhausted like I was back at MIT, and I went, “Oh, I must be burnt out like I was running on adrenaline from the first two weeks of like trying to get stuff straight, making sure family, friends and employees were taken care of. It’s just burnout. It’s pandemic burnout days.” And I just did an away message for two days. But I remember talking to a partner, one of our work partners, and she looked at me on the video call, and she said, “Mmm.” And she kept trying to—and she stopped herself. And she said, “You know, you should lay down.” That’s how she ended it. I went, “That’s odd. She’s usually pretty blunt.”

AD: Mm hmm.

NM: At the time I didn’t know she her husband had gone through a post viral illness.

⁹⁰ Wuhan is the capital city of Hubei province in China. “Wuhan.” Wikipedia. <https://en.wikipedia.org/wiki/Wuhan> (accessed September 17, 2022).

AD: Mm hmm.

NM: And he caught SARS⁹¹ in Hong Kong⁹² and apparently I was looking like he did the first two weeks of his initial SARS infection. And she didn't want to break—[laughs]—break my heart, or just jump to conclusions at that time, because in March 2020 most people had never seen a Covid patient before.

AD: Mm hmm. Mm hmm.

NM: We were only hearing about it on the news, and so I was like, “Okay.” I took a break. And I remember that was the last day I could remember not being short of breath, or having to be mindful of, “do I have enough oxygen—to do X, Y, and Z. Because I woke up and I went to the bathroom, and my chest was in extreme pain. And I remember clutching my chest and saying, “Oh my God, am I having a heart attack?” And I just remember blacking out and hitting the floor. And when I woke up, I was still short of breath. And I was like, “Did I just survive a heart attack? Like what just happened?” and I crawled back into bed, and I can just remember just trying to catch my breath the whole time. And I woke up the next day and then my partner started coughing. And we're like, “the only place we've been in two weeks has been the grocery store. It's not a high probability, but let us go try to get a Covid test to double check.”

AD: Mm.

NM: But at that time, what we didn't know, was most Covid tests were giving false negatives in the city of Boston, and there was a week-long wait list to get one, as we now know, most people only show up positive within that 72-to-120-hour period. Not 120-hour. Was it 120-hour? Yes. 120-hour period. So, I knew, even when I got my Covid test appointment, the likelihood I was still positive was slim to none. And, of course, shows up negative. My doctor goes, “don't worry about it; it's probably pandemic induced anxiety. Just do some yoga and do some adult coloring books and take a Tylenol.”⁹³ By the second month I was like, listen: “I was told this was two weeks.”

⁹¹ Severe acute respiratory syndrome (SARS) is a respiratory illness caused by a coronavirus. “Severe acute respiratory syndrome (SARS).” World Health Organization. <https://www.who.int/health-topics/severe-acute-respiratory-syndrome> (accessed September 28, 2022).

⁹² Hong Kong is a special administrative city in South China. “Hong Kong.” Wikipedia. https://en.wikipedia.org/wiki/Hong_Kong (accessed September 17, 2022).

⁹³ Tylenol is a moderate painkiller and fever reducer. “Acetaminophen oral: Uses, side effects, interactions, pictures, warnings & dosing.” WebMD. <https://www.webmd.com/drugs/2/drug-362/acetaminophen-oral/details> (accessed September 17, 2022).

AD: Mm hmm.

NM: “I’m not in a hospital. I don’t have oxygen. This isn’t working for me. Because every morning, I have to keep going: am I alive? Because I don’t feel alive. I feel like I’m two steps from being in the ICU⁹⁴ and everyone’s just saying, “It’s fine—it’s fine. Just give it another week,” and I’m like, “I can’t give this another week.”

AD: Mm hmm.

NM: “You try the shortness of breath for another week and tell me how your energy reserves are depleted—

AD: Mm hmm.

NM: —by the end of that week.”

AD: Mm hmm. At this point was your partner—had your partner’s symptoms resolved, or were you both feeling—

NM: He was not as bad as me. His worst symptom was the coughing, and that took a good month. And then month two it was kind of like once or twice an hour he would have a good coughing fit. But it took him a good three months before you didn’t even hear a cough from him.

AD: Mm hmm.

NM: So we were both in the—I more so because he could still walk, and think, and do stuff. While for me, waking up was so exhausting, I would have to take a nap after I woke up. Going to the bathroom required taking a nap after.

AD: Mm hmm.

NM: Eating required taking a nap. I was like—honestly it felt like a long hibernation. And very few moments, during that time, I remember—and talking with him I realized it’s because I wasn’t awake.

AD: Mm hmm.

⁹⁴ Intensive Care Unit (ICU) in a hospital is designated to provide intensive medical treatment. “Intensive Care Unit.” Wikipedia. https://en.wikipedia.org/wiki/Intensive_care_unit (accessed September 17, 2022).

NM: I'm like, "Maybe I just don't know I wasn't awake."

AD: Mm hmm.

NM: I was on the sofa next to an open window trying to catch my breath, and my body seemed to just go, "It's better for her to be in a fake coma⁹⁵ than for us to continuously try to work for this breath." So, July of 2020 we made the decision, based on multiple factors, that I would go home briefly and see if that would help. Because my family was dealing with a Covid outbreak, and so, in case something happened I needed to be there. As well as to see if I can get medical treatment while down there, because Covid wasn't as bad in Florida at this time, as it was in Boston. We're like, "Okay, we'll make the decision. You'll get on the plane. Go home to Florida. You'll come back in a month or two. And then we'll continue trying our: what's the next steps here in Boston." And I got on that plane in July. Within a week I was in the ER⁹⁶, with a suspected heart attack, that we now believe was caused by a micro clot⁹⁷ that moved when I was on the plane. But back then we didn't know these things.

AD: Ugh. Yeah, ugh.

NM: And how quickly I deteriorated after that flight we made the decision it was probably not safe for me to get back on a flight—[laughs]—within a month. And that just started the journey of me realizing, "Oh snap, this is not like a short-term disability thing like when you get mono and you're out of school for two months. This is—this has got to be a journey." And I think August of 2020 even my primary care physician was of that opinion of, "If you're not better by now. You're probably not going to get better anytime soon, so you need to start figuring out what you're going to do if you don't improve." And then I was dropped as her patient, because I was too time intensive—

AD: Ugh.

NM: —if I was going to be long term illness versus—She said, "like yes, my cancer and diabetes patients are more lower maintenance when it comes to trying to figure out what's wrong."

⁹⁵ Coma is a state when one in their prolonged unconsciousness can't awake and respond to anything. "Coma." Wikipedia. <https://en.wikipedia.org/wiki/Coma> (accessed September 17, 2022).

⁹⁶ ER stands for Emergency Room in the hospital. "Emergency Department." Wikipedia. https://en.wikipedia.org/wiki/Emergency_department (accessed September 17, 2022).

⁹⁷ Micro clot is a microscopic blood clot that has been debated as hidden reason of long COVID symptoms. Willyard, Cassandra. "Could tiny blood clots cause long Covid's puzzling symptoms?" Nature News. <https://www.nature.com/articles/d41586-022-02286-7> (accessed September 17, 2022).

AD: Oh—

NM: I'm like, "Ooh, this is going to be fun."

AD: Yeah—

NM: And at the time, everyone was praying and hoping for the vaccines and even I was—as a form of antiviral treatment to kind of speed along this recovery. And I remember that fall keeping my hopes up of, "Once we get the vaccine. If I'm going to be forced to live like this the rest of my life or I succumb to my illness, at least there won't be other people like me."

AD: Mm. Mm hmm.

NM: Like that was my big hope. Cuz—you probably heard from Fiona,⁹⁸ "I don't wish this on my worst enemy."

AD: Mm hmm.

NM: [laughs] And I'm known to be petty and even I'm like, "This is a bit too much for a dramatic villain storyline."

AD: Mm hmm.

NM: "Ehh. I don't want to do this."

AD: Mm hmm.

NM: So fast forward to today there's been some highs and lows on my journey of-- some things we thought were going to work. They didn't.

AD: Mm.

NM: I was hoping I was going to be one of the lucky few that being double triple or quadruple vaccinated was going to help my body recover and for me to get out of my post-

⁹⁸ Fiona Lowenstein considers herself an independent writer, speaker, and producer, focusing on gender and sexuality, health justice, etc. "Fiona Lowenstein." Center for Health Journalism. <https://centerforhealthjournalism.org/users/fionalowenstein> (accessed September 28, 2022).

viral ailment.⁹⁹ It did not. But one of the things I can say: the curiosity kid who like to come up with unique solutions for things—the most heartbreaking part of this was me realizing—A) this ailment could take that from you, because of the neurological issues that come with it. And I remember telling my mom when she was taking care of me, “The most heartbreaking part wasn’t the pain, it was me realizing that certain sections of my brain—like an office cubicle floor—I could see lights turning off in random spots on the floor and I knew that was something I was never going to get back.” And this was before, we now know, it wasn’t a figment of my imagination, that was short-term memory loss, as well as neurological decline similar to dementia¹⁰⁰ and Alzheimer’s,¹⁰¹ that we’re now seeing in long COVID patients.

AD: Mm hmm.

NM: But I remember telling my mom, “It’s not the pain. It’s not being able to move and do stuff.”

AD: Mm hmm.

NM: “It’s me knowing I’m losing important information that I could use later in life, to do something with.”

AD: Mm hmm.

NM: “Because that was the core of what made me Netia.”

AD: Mm hmm.

NM: “And to lose that in real time was the most heartbreaking thing, but then every time my mom would ask me, “Well, at least you’re not as sick, as you—like it looks like you’re sicker now than you were at MIT when you were going through your burnout.” And I said, “You know, the MIT situation was worse than what I’m going through now.” My mom was like, “Wait, what??” I was like, “Yeah, I didn’t realize I was in pain. Like the whole time I just

⁹⁹ Post-viral ailment refers to various conditions continuing after the infection is resolved. “An Overview of Post-viral Syndrome.” Southern Medical Association. <https://sma.org/post-viral-syndrome/> (accessed September 20, 2022).

¹⁰⁰ Dementia generally refers to diminished functions in one’s brain that disturb daily life including but not limited to memory loss and judgment struggles. “What is dementia?” Centers for Disease Control and Prevention. <https://www.cdc.gov/aging/dementia/index.html> (accessed September 20, 2022).

¹⁰¹ Alzheimer is a type of dementia that has progressive symptoms of memory loss and inability to respond to daily activities. “What is Alzheimer’s disease?” Centers for Disease Control and Prevention. <https://www.cdc.gov/aging/aginginfo/alzheimers.htm> (accessed September 20, 2022).

thought it was burnout, but now going through this I'm wondering: did I get sick? And I was actually battling a post viral ailment?"

AD: Mm hmm.

NM: And now we know: Yes, I was. All that burnout was actually me recovering from a post viral ailment that they suspect was H1N1¹⁰²—going through campus at the time, but I kept going, "Like I'm in pain. This is horrible, but you know what? It's bad," I said that the first year. Second year, way worse than MIT, but the first year was like, "This isn't as bad as what I went through back then, and that's what prompted my team to go, "Like you look pretty bad. Like your labs aren't great. You're not doing great, and you said, there was a worse moment?" I was like, "Well I never brought it up in medical appointments because they told me it was burnout."

AD: Mm hmm.

NM: And they're like, "right."

AD: Mm hmm. Mm hmm. Mm hmm.

NM: Mm. But I would say year two, when all the other new symptoms come online, I would say no. Far worse. [laughs] Far worse. [laughs more] Even with rosy retrospection¹⁰³—[laughs]—far worse—than the time at MIT but I think—

AD: think this is 2001 to—I mean 2021 to 2022.

NM: Yeah, well, 2021 to 2022, yes. Because the first year—and that's why I like to say long Covid's one of those—you think you beat the worst of it and then something else pops up, and you're like, "Oh, that was a warmup round? Oh, I didn't know I was still training. I thought that was the final boss? bell. Dang it!" I would say 2021 to 2022 the cognitive decline was apparent, and I had to step away from being Executive Director of Mbadika for a while. Because I couldn't remember days of the week. I couldn't remember people's names—not like people I talked to once a month—I mean people I live with. I couldn't

¹⁰² H1N1 is a type of virus that brings about seasonal flu. "H1N1 flu (swine flu)." Mayo Clinic. <https://www.mayoclinic.org/diseases-conditions/swine-flu/symptoms-causes/syc-20378103> (accessed September 20, 2022).

¹⁰³ Rosy retrospection is a cognitive tendency to bias the past which can consequently cause misjudgment or distortion of the present. "Rosy retrospection." Wikipedia. https://en.wikipedia.org/wiki/Rosy_retrospection (accessed September 21, 2022).

remember their name. And to quote my mother, “It was like you're living with an Alzheimer's patient,” because she took care of my grandmother—

AD: Mm hmm.

NM: —who suffered from Alzheimer's.

AD: Mm hmm.

NM: And to see the same look of confusion in me she's like, “Oh, your doctors may not pick up on it, but I'm looking at you, and you don't remember why you're in this house. You don't remember why you're in a room, and when you go to sleep, or when the sun goes down, you're crazy as a jitterbird.” Like, no. That year, realizing how much I was losing so quickly—

AD: Mm hmm.

NM: —that was the roughest part of my journey thus far. The last couple of months they're finally finding, not treatments, but ways to manage my symptoms. And those have been night and day an improving quality of life. And I can say now, I still know I'm losing things, but there's—it's not every morning I feel like I'm losing three to six months of memories.

AD: Right. Yeah.

NM: Now it's like, I forgot there was a bumblebee that stung me two days ago. I forgot that I had milk in the fridge. Like manageable short-term memory loss. And because, once again, I felt so fortunate, because I know others who are not, and they're in nursing homes or no longer on this planet.

AD: Mm hmm.

NM: I wanted to pay it forward so that—those who may be joining the pipeline either recently—

AD: Mm hmm.

NM: —or in the future would know: It's scary. It's *scary*. But no, you're not crazy.

AD: Mm hmm.

NM: And this is a thing. And that's where I found myself doing some stuff with long COVID advocacy. Because one of the things that bothered me, even in the first month of the pandemic, as someone who runs a STEM organization and does science communication—

AD: Right.

NM: —was the communication! Like, I would have to make graphics for family members to understand like, “No, this is not what you should do. No, this is not what the CDC¹⁰⁴ is supposed to be telling you. This is the type of mask you're supposed to wear etc.”

AD: Mm hmm. Mm hmm.

NM: And I was getting frustrated, because I was doing science communication work for my community and for my family and friends, which I don't mind. I love sharing knowledge, as you can see here—that part I love.

AD: Mm hmm.

NM: But when you don't have energy or bandwidth, it's extremely taxing to do.

AD: Mm hmm. Mm hmm.

NM: And now two years on, I have so many family members who are now realizing they have long Covid like me. And they can't figure out how to navigate what they have—what it's supposed to look like. And that's where I'm like, “I can't do public speaking and all of that—that's not my forte—but what I can do is science communication. So, if that's a skill I can give to long Covid and advocacy work around that, that's the skill I'm giving. And I bring up this example of my aunt. My aunt saw me about three or four months into my long Covid journey, and she was seeing me once a week. And saw how bad I was getting. Like, I wasn't able to walk; like I was dragging my legs, at one point. And I remember, she was like, “Oh, I'm fine.” Because my face—my face and my hair was still intact. She'd say, “Ahh, if you use a wheelchair it's fine.” I'm like, “You're 40 years older than me, but it's okay, for me, because nothing's wrong with me. Okay, cool.” After her third bout with Covid because—some people—were hitting those levels now. She couldn't remember things and she was

¹⁰⁴ CDC, or Centers for Disease Control and Prevention, is a governmental organization for public health in the US. “Centers for Disease Control and Prevention.” Wikipedia.
https://en.wikipedia.org/wiki/Centers_for_Disease_Control_and_Prevention (accessed September 21, 2022).

watching CBS¹⁰⁵ morning show, and they were featuring a long Covid patient, and she goes, “Hey, Netia! There's this girl on TV who's talking about like long Covid and that seems like what you have. And I have to go: “That was me. That was me on the TV explaining long Covid.”

AD: Oh my gosh.

NM: And she went, “That was you?” “Yes, that was me, yes, literally yesterday you saw me before I did the zoom that you saw this morning. I was wearing the same clothes.” She's like, “Oh, well, she made more sense.” It's just like, “Oh, and your hair's different.” I was like, “My hair is exactly the same as it was yesterday” [laughs]. “I've lost it to Covid, you saw me do my dramatic chop.” And to realize, even for her—seeing her niece—didn't make the connection for her. It was seeing somebody who she was detached from, even though it was her niece, which told me the cognitive dysfunction was a lot higher than I thought.

AD: Mm hmm.

NM: Because my name was even up. I was like, “Okay.” But hearing someone she was detached from that came from a position of authority helps relay that information clearer for her and I went, “If that's all it took for my aunt—What can I do for other family members or people dealing with this for them to understand: A) What's happening to them? Why there's so much chaos, all of a sudden in their lives?” And then the beauty about science and engineering is bringing order to that chaos with knowledge.

AD: Mm hmm.

NM: Like now that you know why things are chaotic, it's okay to fear them. Like, I'm still fearful of getting cold again. Because I've gone through this. I don't want to go through this at a higher level. I'm not that video game player who's like I need to increase the intensity. I'm good. I'll play easy mode.

AD: Mm hmm.

NM: But using my science technology engineering background to go, “This is the chaos, but just like we didn't understand thunderstorms and hurricanes, we now do. Now I can't prevent them. But I can tell you when they're coming via the weather channel app. or weather alerts, and you can avoid being in a situation that's going to cause you harm.”

¹⁰⁵ Columbia Broadcasting System (CBS) is a US broadcasting network of radio and television. “CBS.” Wikipedia. <https://en.wikipedia.org/wiki/CBS> (accessed September 21, 2022).

AD: Mm hmm.

NM: And that's what I like to do with my advocacy work on that end. Which surprisingly still aligns with my passion for Mbadika so—Yeah.

AD: They hold hands in some way.

NM: Yes [she says while laughing and playfully nods head side to side].

AD: Do you want to describe the organization that you've done work with a bit? Has it been just one or—

NM: So, it's been a few.

AD: Okay.

NM: But the primary organization I work with is C-19 Longhailer Advocacy Project,¹⁰⁶ which is led by executive director Karyn Bishof.¹⁰⁷ I do a little bit of work with [Ebi??] Action because, as someone who's realized—me not having that “connect the dots,” moment earlier in life in regards to what happened to me in undergraduate, and realizing post viral or post infectious diseases can have a long tail. That was something I didn't know. But now realizing like, “Oh, that's why we get the HPV¹⁰⁸ vaccine.” Because that can have a long tail of cancer. Or Epstein Barr virus¹⁰⁹ can lead to an activation of MS¹¹⁰ in over 90% of cases. Now that even my science literate tail has been made aware of this, I work with multiple organizations who are now realizing how big a threat long Covid is to their communities.

¹⁰⁶ C-19 Longhailer Advocacy Project is a non-profit organization working towards the awareness of Long Covid and support for longhailers and their families. “Home: Covid-19 longhailer advocacy project: C-19 Lap.” Covid 19 Longhailer. <https://www.longhailer-advocacy.org/> (accessed September 22, 2022).

¹⁰⁷ Karyn Bishof is the director and founder of C-19 Longhailer Advocacy Project, who was one of the first patients worldwide to get Long Covid. “Our Team.” Covid 19 Longhailer. <https://www.longhailer-advocacy.org/our-team> (accessed September 22, 2022).

¹⁰⁸ HPV, or Human Papillomavirus, is a very common infection transmitted through sexual intercourse. “Std Facts - Human papillomavirus (HPV).” Centers for Disease Control and Prevention. <https://www.cdc.gov/std/hpv/stdfact-hpv.htm> (accessed September 21, 2022).

¹⁰⁹ Epstein Barr Virus (EBV) is an omnipresent human virus that causes mono and some other ailments. “About Epstein-Barr virus (EBV).” Centers for Disease Control and Prevention. <https://www.cdc.gov/epstein-barr/about-ebv.html> (accessed September 22, 2022).

¹¹⁰ Multiple sclerosis (MS) is a disease disturbing the connection between the brain and body, which can ultimately lead to deteriorated nerves and disability. “Multiple sclerosis.” Mayo Clinic. <https://www.mayoclinic.org/diseases-conditions/multiple-sclerosis/symptoms-causes/syc-20350269#:~> (accessed September 22, 2022).

AD: Mm hmm.

NM: And I try to come in as the communicator to make sure everyone's on the same page of, "This is what we know now, and this is how you can relay that information to those without a scientific medical background so they can quickly grasp what they need to make better decisions to protect themselves and their families and loved ones." But yeah.

AD: That makes a lot of sense. My next question is kind of taking a step back and piecing together this arc of both personal and professional work in the context of feminism. And I'm curious what you think feminism is; How you've come to understand it in your own life; What it's meant to your work; and whether you consider yourself a feminist.

NM: Phew! This is the other loaded one. So, [laughs] for me, I grew up in the south and feminism was like the dirty word outside of my house, it was the word for, "Females think they should run stuff and think they're equal to men." And I'm like, "Okay, but what's the alternative, because I'm starting to feel: if you have a position that women shouldn't find themselves to be equals, then that means you find them less than. So, why would I want to create solutions to the challenges facing our world if you find me less than? And I think this is a unique perspective for, as a woman of color, but for anyone from any non-mainstream identities—it's: okay, you're mad at feminism because women have equal rights—mmmmm [gives a skeptical look and gestures with hands]. And it took me a very long time to realize why feminism wasn't something that was taught to me outside of my house. Cause, in my house feminism was taught as, "Back in the day you go to the grocery store, and there was just one type of apple. It was MacIntosh.¹¹¹ You didn't have a choice you just had to eat MacIntosh, or you just don't eat apples at all. And sometimes you didn't have a choice not to eat, because you would starve. But then women started saying, "Hey, we want more diversity and choice and options. And so, you don't just have a MacIntosh, you had a Granny Smith.¹¹² Then other groups started voicing their, "Hey, we have some unique tastes, too, cause we're all different. And that's when you got Gala,¹¹³ and Fuji,¹¹⁴ and all these wonderful apples came to the grocery store. So, instead of just getting the MacIntosh, you have other options. But sometimes MacIntosh feels really, really bad that you pick the

¹¹¹ MacIntosh is a kind of apples that has ripe red skin. "McIntosh (apple)." Wikipedia. [https://en.wikipedia.org/wiki/McIntosh_\(apple\)](https://en.wikipedia.org/wiki/McIntosh_(apple)) (accessed September 22, 2022).

¹¹² Granny Smith is the green-colored type of apples that originally came from Australia. "Granny Smith." Wikipedia. https://en.wikipedia.org/wiki/Granny_Smith (accessed September 22, 2022).

¹¹³ Gala is a reddish sweet type of New Zealand apple. "Gala (apple)." Wikipedia. [https://en.wikipedia.org/wiki/Gala_\(apple\)](https://en.wikipedia.org/wiki/Gala_(apple)) (accessed September 22, 2022).

¹¹⁴ Fuji is a red type of apples originated in Japan. "Fuji (apple)." Wikipedia. [https://en.wikipedia.org/wiki/Fuji_\(apple\)](https://en.wikipedia.org/wiki/Fuji_(apple)) (accessed September 22, 2022).

Gala or a Fuji or a Granny Smith, and they like to pound their fists at the grocery store, meaning that they want to go back to the old days that nobody else had any other space in that apple section. And it's the good old days when MacIntosh was celebrated. It was the apple of the day. It was a *MacIntosh*. Not a Fuji. Not a Gala. Gala is for a good party, not for an apple." That was like the discussion my mom would have with us. Some people just don't like the fact that MacIntosh has to share space with other apples, but everybody else loves the fact that if you hate MacIntosh apples, like my family, we can still pick up a Gala, and feel like we made a good apple pie and share in that American dream,¹¹⁵ just like people who like MacIntosh and Granny Smith. It's just slightly different, and that definition of feminism as, "We're just asking for choice, and a seat at the table, to make sure we can have liberty and the pursuit of happiness kind of deal"—that's what I feel is the branch of feminism I grew up with, and that I embrace.

AD: Mm hmm.

NM: For me on my personal, professional journey, I feel it's the central model for me. My team likes to call me the Benevolent Queen of a Constitutional Monarchy,¹¹⁶ right? And I go: "That's a very loaded statement." [laughs] But what they mean is, like on the surface people will look, and they're like, "Oh, like she's a dictator. She should be able to do whatever she wants; she's like the boss." But I try to make sure that my background is one unique set of experiences, but I want to hear about all of your experiences on how you would tackle this.

AD: Mm hmm.

NM: Now, sometimes we do a vote on what we should do, but at the end of the day, I could drag my tail up just like the Queen at the Platinum Jubilee¹¹⁷ and go, "Nah, we ain't doing that." I respect everyone's opinion here, but I'm the next one signing check, and I'm like "nope not doing that." But I had the options of MacIntosh, Granny Smith, Gala and Fuji before I made that decision.

AD: Mm hmm.

¹¹⁵ American Dream briefly refers to an ideology in which freedom of a society and one's hard work can secure their success and wealth regardless of their social status. "American Dream." Wikipedia. https://en.wikipedia.org/wiki/American_Dream (accessed September 24, 2022).

¹¹⁶ Constitutional Monarchy is a governmental form in which monarch joins a constitution in decision making and authority practices. "Constitutional Monarchy." Wikipedia. https://en.wikipedia.org/wiki/Constitutional_monarchy (accessed September 24, 2022).

¹¹⁷ Platinum Jubilee is a milestone celebration of a Monarch's 70-year service. "A History of Royal Jubilees." Historic Royal Palaces. <https://www.hrp.org.uk/tower-of-london/history-and-stories/a-history-of-royal-jubilees/> (accessed September, 24 2022).

NM: And I think that's how I try to live my personal and professional lives: that you just want to give options. I'm not going to force somebody to accept my perspective or belief. But I'll be damned if you come to my section or spaces I occupy, and dictate me giving kids exposure to computer science, engineering, as well as some other technical invention, and telling me, "Oh girl, shouldn't be learning that or the Black kids got all the good programs, what about the white kids over here?" My brand of feminism is: Everyone should have a seat at the table, and if they decide to eat is their business, but at least they got to the table, and were exposed to it. And with Mbadika it comes in the form of our programming in which we try to make our programming as gender neutral as possible, so everyone has a seat. And sometimes, that means working against the systems that are in place.

AD: Mm hmm.

NM: For example, a lot of our programs don't say STEM.

AD: Mm hmm.

NM: They say design. That's because we found out that when a high school teacher or guidance counselor got a flyer from us and it said STEM, over 80% of the kids they were recommending to us were boys. No matter what school district or country, it was boys.

AD: Mm hmm.

NM: But if we said design, then we got 60% girls and 40% boys. Is that a perfect ratio? No. But it was better than getting clearly 80% boys and 20% girls.

AD: Mm hmm.

NM: so even our brand is—sometimes we have to do things to make sure everyone still has that opportunity to have a seat at the table.

AD: Mm hmm. That's so interesting. And you're—This has had such a global dimension for such a long time. I'm curious at this point, whether you have any reflections about some of that cross-national and cross-cultural difference in the context of gender. Are there any salient things that you can pull out? Lessons learned?

NM: I would say, every culture, every region, every city, every neighborhood's battle in regards to the lens of feminism is different. The battle I had in Johannesburg¹¹⁸ was different than the battle I had in Belo Horizonte. The battle had in Belo Horizonte was different to the battle had in Brussels,¹¹⁹ or in Boston, or San Francisco,¹²⁰ or even being in Chicago. I would say one anecdote was in Johannesburg—I had a meeting there—and I was with the State Department. So, you're thinking, "Okay, I'm using the cloak of State Department. Who I am, identity politics wise, shouldn't—should not matter at all." So, the meeting, the representative or meeting from South Africa,¹²¹ just kept looking at my partner who's a six foot three um South African man, and then me, and he kept calling my partner Netia. And for a second I kept going, "So am I Charles? He obviously knows I'm not Charles. Why does he keep calling my partner Netia?" And this was the—everyone has a different flavor when it comes to how society should be built. For an hour, this man kept going, "Yeah, Netia, like your background's really impressive." And I'm like, "uh---um. I'm just gonna sit here, because my partner should call out that his name is Charles, not Netia, and so and make this straight." And it didn't happen. So, on the car ride back, I was like, "Hey, I'm not trying to be that person. Not trying to be like, "I need my accolades," but um, why didn't you correct it? He said, "If I corrected him, the meeting would have ended, because he wasn't going to meet with you. And for us to get what we need, to do the work that we need to do as your ally, I became your "White Ghost." he was calling it. And he's a Black man, so I was like, "White Ghost" is a weird turn of phrase, but I get it. Different cultures.

AD: So interesting. Right, yeah.

NM: He was trying to say Casper.¹²² I knew what he was trying to say. Okay, he was like, "Cuz I could have ended that meeting, and he would have cut off all funding we could have possibly have gotten from the Department of Education in South Africa. He said, we know the table wasn't fair for you coming in, once he kept calling me Netia. So what I did was play my position, so that way, we still have access to the funding to do the work we need to do. And I went, "Now how does that play up in other circles?" Because my American feminism side, that I grew up with would have been, "Yeah, that totally makes sense, like change--

¹¹⁸ Johannesburg is a large major city in South Africa. "Johannesburg." Wikipedia. <https://en.wikipedia.org/wiki/Johannesburg> (accessed September 24, 2022).

¹¹⁹ Brussels is the capital city of Belgium. "City of Brussels." Wikipedia. https://en.wikipedia.org/wiki/City_of_Brussels (accessed September 24, 2022).

¹²⁰ San Francisco is a big city in California, USA. "San Francisco." Wikipedia. https://en.wikipedia.org/wiki/San_Francisco (accessed September 24, 2022).

¹²¹ South Africa is a country to the southernmost of Africa. "South Africa." Wikipedia. https://en.wikipedia.org/wiki/South_Africa (accessed September 24, 2022).

¹²² Casper is a friendly and adorable ghost characterized in an animation series. "Casper the Friendly Ghost." Wikipedia. https://en.wikipedia.org/wiki/Casper_the_Friendly_Ghost (accessed September 24, 2022).

work against the system in a way to make sure everyone has to see the table, because you're not going to change certain people's perspective." Got it.

AD: Mm hmm.

NM: But then the way I was taught feminism in schools and in college was, "No, you need to correct that. You need to establish your dominance. You need to make them bow down to—you are a woman." And I go, "Whooh. This is going to be a crash course on how everything has got nuance and everything has a different flavor. And pretty soon I'm going to have a tea wall of all the different flavors or lenses I have to have in order to do this work, and by golly¹²³ I was correct." Every country deals with it differently. I don't care, I know this is a personal opinion. I don't care if you're not giving me like my accolades or what have you, as long as you don't stop the work of making sure there're seats.

AD: Mm hmm.

NM: And every time I've done that, it's not always been successful. Some people, some institutions, you have to beat over the head of, "No, I'm a woman. I do this work. And screw you, we're not working together." And then there's other institutions that you have to do what Charles did, and when they realize the work is being produced by women. And they try everything they can to shift that narrative that women can't compete, or not on the same playing field, but we exist, and you benefit from us?—Is not really for the people *in* the institution—it's for the people *outside* that institution to see.

AD: Mm hmm.

NM: And that's how I've noticed I've been able to convince fathers, and mothers, and uncles, and aunts—to take a little bit more seriously the freakin' natural talent the girls in their households have to make the world a better place. Because they'll see me walk out of a department they've never seen a woman walk out of who wasn't a secretary, or doing maintenance, or doing cleaning. And they'll go, "Wait, they let her walk in the building? And she has a backpack?" The weirdest minimal things. Even though that institution may be trash, now you have a community going, "Well, if she's possible, then why didn't you hire my niece?"

AD: Mm hmm.

¹²³ By golly is an exclamation used to express surprise or spotlight the sentence. "by golly." Macmillan Dictionary. <https://www.macmillandictionary.com/us/dictionary/american/by-golly> (accessed September 24, 2022).

NM: It is the communities that provide that pressure to those systems.

AD: Mm hmm.

NM: And I say that, from my feminism lens of about 11 countries of work experience, as well as my lens as a woman of color.

AD: Mm hmm.

NM: Rarely is it *in* the institution you making those changes. It's you making those changes so the communities and customers and everyone outside of it starts putting the pressure on. "Mmm. Now we know what's possible and that the world's not going to burn down if you do this. Why are you not doing it? Just an innocent question."

AD: Mm hmm.

NM: I thought the world was going to burn if like half the table had women, but apparently not. We apparently seem to be doing a better job soooo.

AD: Interesting—yeah.

NM: Yeah, and—pay equality—is something that, because I run Mbadika, I've never had a big issue with, because we were like, "We pay based on experience." Not based on, "Oh my God, you know you may have a family in five years, so let me help you build up your nest egg." No, I would say abroad though—whew! That was something that we probably had to do the most work with, was that a lot of our college graduates or college students who are helping out with Mbadika who are male, automatically assume that they were getting paid twice as much as the females in our organization, just because they were male. And one made a very blunt argument to me; he said, "I provide you more credibility than she does." I go well, maybe here, but in the U.S. you don't. So you have to realize that half your role is to the US and the other half is to home.

AD: Mm hmm.

NM: So yes, if I bring a mom or pop in and they see a male engineer, they may take us more seriously because of that. But you know what, when my American investors come in, they don't want to see you.

AD: Mm hmm.

NM: Cause they're looking at diversity and inclusion.

AD: Mm hmm.

NM: Kind of negates your pay bump that you're trying to argue with me on.

AD: Really interesting.

NM: So that's like the—that's like the—only major I've seen across our work experiences has been trying to negotiate and get stuff straight in terms of our programming at home or abroad. Regardless if it's Mbadika or long Covid and the second thing has been the pay equality.

AD: Mm hmm.

NM: That was what I didn't—I didn't think was going to be as big of a deal as it was.

AD: Mm hmm.

NM: But as you can tell from the bags under my eyes, I am wiser [laughs].

AD: I guess, maybe, as we think about wrapping up some of the last questions I would have would be: Specifically in the context of long Covid, what your experience with long Covid—and this sort of segues from what we've been talking about—reveal about the intersectional dimensions of long Covid?

NM: I would say-- in regards to my diagnosis and treatment, thus far: within the first three weeks of me being sick and suspecting it was Covid, I knew it was a long shot, but I was willing to pay out of pocket.

AD: Mm hmm.

NM: And once I started realizing what the alternative would be—um—I remember reaching out to my doctor and I reached out anonymously to some other doctors in the area. And said, "Hey, I know that I didn't test positive for Covid-19. It is possibly the flu that I'm still battling with, is it possible to get my hands on some antivirals, because I feel the

problem is either: My body is just going haywire¹²⁴ cause it still thinks it's Covid in its body or the flu, or B) it's still in my body, and I kind of need to start fighting it was a little bit more than a Tylenol, ginger ale,¹²⁵ and rest.

AD: Mm hmm.

NM: Out of about 10 people I emailed or call their offices all of them were like, "No. Why would you treat Covid with an anti-viral? Like, it doesn't last longer than two weeks." "Okay, but if it's a virus, I don't understand how two plus two doesn't equal four. Is there something unique about this virus?" I'm going, "Wow, my STEM trainings not great, because apparently this does not, 'two plus two does not equal four.'" And I remember, for the first six months, when I kept talking to medical professionals, they kept going, "Oh, it's just anxiety." I'm like, "No, I'm having I'm having seizures."¹²⁶ They're like, "No, you're shaking from the trauma."

AD: Mm hmm.

NM: The trauma of being in my house as an introvert—as an introvert?

AD: Mm hmm. Mm hmm.

NM: "No, the trauma is that I'm looking and realizing I may not get better because you all aren't doing anything about an apparently growing problem." Fast forward to year one post-Covid when the neurological symptoms were ratcheting up, and how quickly I went from "interesting case of let's explore this and see what it is" to assume, as I didn't fit into a neat box—all of a sudden, it was back to, "Oh, it's all in your head." "Oh, it's anxiety or trauma-induced" etc., instead of looking at, "Did you see my brain scan there? What's that? That wasn't there six months ago."

AD: Mm hmm.

¹²⁴ To go haywire refers to bizarre or uncontrolled behaviors. "haywire." Wikipedia. <https://en.wiktionary.org/wiki/haywire#Translations> (accessed September 24, 2022).

¹²⁵ Ginger ale is a ginger-flavored type of soft drink. "Ginger ale." Wikipedia. https://en.wikipedia.org/wiki/Ginger_ale (accessed September 24, 2022).

¹²⁶ Seizure refers to nervous system's abrupt disruption that leads to uncontrolled behaviors. "Seizures." Mayo Clinic. <https://www.mayoclinic.org/diseases-conditions/seizure/symptoms-causes/syc-20365711> (accessed September 24, 2022).

NM: Or having a seizure in the hospital and them watching and they're going, "Oh well, you know that that could have been the AC."¹²⁷ And I kept going, "Okay, is it—is it because I'm female? Is it my voice is too high pitched? Is it because I'm black? Is it my age? Is it my weight? Is it socio—assumed socioeconomic status? Like I'm trying to figure out why you're not even entertaining this, with even exploring this aspect, which makes you money. I will become poor if you explore this aspect. There's a financial incentive to explore it. And I think it took the cognitive issues to develop for me to start realizing: let me play a game, because at this point it's sunken cost.¹²⁸ Let's play a game. So, when I went to my neurologist I would say, "Oh well, you know MIT is looking at this." And just like spout off nonsense to basically let him know he's going to look like a fool when he goes to his academic conference, because the cool kids in neurology were looking at this research angle. And he's like, "Well what would you know about that?" And I was like, "Well, you know, if you Google me, you'll realize who I'm connected to." And I kid you not this man Googled, in the middle of my doctor's appointment, and went, "Oh, they're talking about that Covid can still exist. It's viral persistence. And I went, "Yes! And did you see the picture of me? With that person? Yes!" And how it went from, "Oh, this patient—it's all in their head to—I'll order these tests." Not to help the patient or because I will leave them, but "I'm going to show this MIT snooty two shoes, whatever, that she doesn't know anything." So doing that out of spite because you're going to prove to this female or to this Black female or young female—don't know which boxes—

AD: Mm hmm. Mm hmm.

NM: —was the trigger.

AD: Mm hmm.

NM: And then you have to come to me three months later and go, "Well, yes, you were correct. Um, it's been a year, apparently, but you still have Covid. Um-- in your spinal column so yay. [pretends to be the doctor looking around awkwardly]. So, you do qualify for some stuff that—here's the prescription pad (don't make eye contact)—and yeah. I had to sit here and go, "In this journey, I didn't expect an apology. I didn't expect one—but what is everyone else going to do when they face this? They're going to just listen to you. Go about their lives thinking, "it's just me." [sighs] And every time I go into a doctor's office, as someone who is a woman, and a woman of color—you've probably heard this all the

¹²⁷ AC stands for air conditioning. "AC." Oxford Advanced Learner's Dictionary.

<https://www.oxfordlearnersdictionaries.com/us/definition/english/ac> (accessed September 24, 2022).

¹²⁸ Sunk cost refers to complete expenditure that can't be returned. "Sunk cost." Wikipedia.

https://en.wikipedia.org/wiki/Sunk_cost (accessed September 24, 2022).

time—gaslighting¹²⁹ is real in the medical establishment. My mother is a former nurse. They kept telling us it was diabetes: why my mom's leg was basically deteriorating, and you can see bone. I said, “She doesn't have diabetes, no one in my family has had diabetes. The blood work shows no diabetes. Where are we getting that?” Well, she's Black and middle aged.

AD: Hmm.

NM: “Is that it? We hit 40, we automatically get—What?!”

AD: Mm hmm. Mm hmm.

NM: And me having to fight for her to get the proper testing to show—because of a virus she obtained during a hurricane that made sure we didn't have food and water for a week, she was suffering from a post viral ailment that triggered an autoimmune disease called lupus. And lupus makes wounds notoriously hard to heal, and the virus she got was from a damn mosquito. That's why her leg was being devoured [takes long pause]. That was just 2019 we went through it, and to see myself and other people doing the Medical Olympics,¹³⁰ you have to wonder when I hear certain people get access to the Olympics faster than others—

AD: Mm hmm. Mm hmm.

NM: —what factors are boxes that they got checked off that they were able to have the empathetic ear. And one thing that's going to be a huge issue, and this will be my last point, is socioeconomic status and safety nets.

AD: Mm. Mm hmm.

NM: I've had to decrease my work schedule to the point that if I didn't have the safety net I have, I would seriously be on the streets, homeless, with no future. I tell people that all the time. Don't look at this as, “This is what your long Covid experience is going to be.” I'm incredibly blessed, but I also know that at any moment I can be yanked to that situation.

AD: Mm hmm.

¹²⁹ Gaslighting refers to form of psychological abuse that makes someone self-doubts their sanity. “Gaslighting.” Wikipedia. <https://en.wikipedia.org/wiki/Gaslighting> (accessed September 24, 2022).

¹³⁰ Medical Olympics is a commission in Olympics in charge of athletes' health matters. “Medical and Scientific Commission.” International Olympic Committee. <https://olympics.com/ioc/medical-and-scientific-commission> (accessed September 24, 2022).

NM: A lot of people don't have a safety net. They *are* the safety net for many people.

AD: Mm hmm. Mm hmm.

NM: And they're facing that situation now, and one of the things about long Covid advocacy that seems to also be similar to my work in STEM education—is safety nets aren't factored in. A lot of people in long Covid advocacy are like—

AD: Mm hmm.

NM: — “Hey, we need to focus on the research side and find a treatment. And I'm like, “Okay, I agree, the science and the scientist in me agrees, but who's going to be able to afford it?” And, who's going to live long enough to receive that treatment? Because there's no economic supports; there's no social program supports, specifically for this ailment. So, who's going to benefit? And when I look at other post viral and post infectious disease communities, like they go, “We have a race and identity issue.” And I go, “Do you realize you have that because the Black and Brown or Queer or anyone who's not a mainstream identity going through this is probably dead or in a nursing home and has no ability to help you?” And even they were like, “Wait, what?” I was like, “Do you see how expensive it is to manage your condition? People living paycheck to paycheck can't do that.”

AD: Mm hmm.

NM: And their doctors aren't gonna order tests, because Medicaid¹³¹ or Medicare¹³² isn't going to cover it.

AD: Mm hmm.

NM: So, they can't even get to the point of—they know what they have, they can get support for it, and I think that's the major—[long pause]. It's not just women, people of color, it's the social economic status and safety net issue. I think it's gonna dictate where this work is gonna go—

¹³¹ Medicaid is an American health coverage program, especially for underrepresented groups. “Medicaid.” Medicaid. <https://www.medicare.gov/what-medicare-covers/your-medicare-coverage-choices/whats-medicare> (accessed September 24, 2022).

¹³² Medicare is a federal program for mostly elderly people's health insurance. “What's Medicare?” Medicare. <https://www.medicare.gov/what-medicare-covers/your-medicare-coverage-choices/whats-medicare> (accessed September 24, 2022).

AD: Mm hmm.

NM: —and its impact.

AD: That's a powerful and illuminating place, I think, to end, and I think so nicely ties together both your work in STEM and long Covid and what has been sort of a lifetime of thinking about gatekeeping and access and equity. So, it's really been an honor for me to spend these last couple hours with you, and I appreciate you sharing your story, and um, hopefully we'll all benefit from it, so thank you so much.

NM: Thank you and, hopefully, there is a good gem of knowledge, because I still have my moments of, “I don't know if I'm rambling or I'm making sense. But—”

AD: No, this was—it was rich and really illuminating so—I appreciate it.

NM: Well, thank you for the invite and thank you for your patience—[sighs]—to weed through—oh my God—that hay barrel of thoughts and opinions

AD: It was wonderful.