Getting Curious with Jonathan Van Ness & Meredith Broussard

JVN [00:00:02] Welcome to "Getting Curious". I'm Jonathan Van Ness. And every week I sit down for a 40 minute conversation with a brilliant expert to learn all about something that makes me curious. On today's episode, I'm joined by NYU Associate Professor, data journalist, A.I. researcher and author Meredith Broussard. We discuss her book, "Artificial Unintelligence: How Computers Misunderstand the World", where she sheds light on how racism plays a part in the current state of A.I. Welcome to "Getting Curious", this is Jonathan Van Ness. I'm so excited to introduce to you, Meredith Broussard, our guest this week. You are a professor at NYU and also an author of a gorgeous book, which is "Artificial Unintelligence", which I live for. Welcome.

MEREDITH BROUSSARD [00:00:45] Thank you. It's so exciting to be here.

JVN [00:00:47] I'm so happy to have you here. I've, I don't think I've ever had a professor from NYU. I'm enthralled. I'm nervous. I'm, NYU is like a major school, honey, she's like a major university.

MEREDITH BROUSSARD [00:00:59] Well, you can come to class anytime.

JVN [00:01:00] Oh, my gosh. Is that a thing where you observe-? You can come like, what's that called when you come observe a class? It's like a thing. Isn't that like a thing that people do where they go, like observe classes?

MEREDITH BROUSSARD [00:01:10] Yeah, yeah, it has a name.

JVN [00:01:11] It's like, uh, audit!

MEREDITH BROUSSARD [00:01:14] Yeah. Audit.

JVN [00:01:15] It's an audit.

MEREDITH BROUSSARD [00:01:15] All right. You can come audit my data journalism class anytime.

JVN [00:01:19] Really?

MEREDITH BROUSSARD [00:01:20] Yeah. It'd be fun.

JVN [00:01:21] OK. I'll. I'm. OK. Focus. I was imagining like an all back outfit, a really sleek haired, like something sleek. Something like really Julia Roberts in "Erin Brockovich". Like I'm going to university to learn about this water.

MEREDITH BROUSSARD [00:01:36] Oh, that would be lovely.

JVN [00:01:38] I digress. So "Artificial Unintelligence" is a book about algorithm bias.

MEREDITH BROUSSARD [00:01:45] Yeah, it's a book about the inner workings and the outer limits of technology. And I wrote it because there's a lot of confusion out there about what computers do and don't do. And there's an idea that I talk about in the book called Techno-Chauvinism, the idea that computers are always superior to humans. And I think it's time to really examine that bias, that knee jerk reaction that we have that, oh, we need to always use computers because always using computers is better. And we need to think more about what is the right tool for the

task? Because sometimes the right tool for the task is a computer. And sometimes it's something simple, like a book in the hands of a child.

JVN [00:02:26] Oh, OK. So one example is letting a kid use their imagination in terms of a book instead of like opting for a computer. What's like another example where we shouldn't be so to, or we could opt to not be so tech centric?

MEREDITH BROUSSARD [00:02:41] Well, because I'm a professor. I really think about this a lot in the term, in terms of education. So one of the things that I talk about in the book is an investigation that I did, a computational journalism investigation, where I asked the question, do the kids in Philadelphia public schools have the books that they would need in order to learn the material that's on the state mandated standardized tests? You know, because people are all worked up about standardized tests nowadays. And in our large urban public school districts, kids are not passing the tests. So I discovered that the same people who write the books, write the tests. And originally I thought, oh, well, I, I used to be a test prep teacher. So, like, I'm going to go in, I'm going to write like some amazing computational system that is going to allow kids just like to do better. And then I realized like oh wait, you don't actually need to do that. All you need to do is give the kid the book because the book has the material that you would need.

JVN [00:03:42] So what did you find?

MEREDITH BROUSSARD [00:03:43] Well, I found that, no surprise, Philadelphia public schools didn't even have vaguely the number of books that they would need in order to get the kids to pass the tests. And moreover, they didn't have enough money in the budget to buy the books.

JVN [00:03:59] Does that mean that they just had, like, everything like on computer or iPad and they were like, we'll just read it there?

MEREDITH BROUSSARD [00:04:05] Oh, no, no, no, no, no. Not even close. So there was this, this very confusing thing that happened where people were so excited about the idea of using technology in the classroom that they were spending all this money on technology and doing that really badly. And they were also short changing the traditional methods.

JVN [00:04:25] Because they were replacing it with the technology, so they were like, oh, we don't need to because it's-.

MEREDITH BROUSSARD [00:04:30] Exactly. So that's Techno-Chauvinism.

JVN [00:04:33] Oh, yes, Queen, you are really a professor, honey, bringing it back. Like finishing a point, honey, I, nailing it. So that's Techno-Chauvinism is like, like leaning into computers, like choosing computers when like-. That makes sense.

MEREDITH BROUSSARD [00:04:50] Yeah. So it's also about doing it badly. Right? Like you can absolutely replace paper processes or human processes with computer processes as long as you also have the, the low tech options available, say, for people who can't access the computational options. But too often the computer systems are used to perpetuate bias, or in the case of something like public assistance, the public assistance systems are automated and the automation is actually used to edge people out of being able to access benefits.

JVN [00:05:36] OK, let's. OK. So the automation systems used in, like in systems for people to gain benefits are used to like, perpetuate bias.

MEREDITH BROUSSARD [00:05:48] Exactly. There's a really great book by Virginia Eubanks called "Automating Inequality". And in it, she writes about how automated systems are used to profile, police and punish the poor. So, for example, there is, there's a situation that she talks about where caseworkers used to have a drawer full of cash. And so if you walked in and you were a young mother who was at the end of the month and you didn't have enough cash to buy diapers and formula for your baby, the caseworker would know who you were and the caseworker would be able to just reach in the drawer and like, give you, you know, 10 bucks, 20 bucks to buy diapers and formula for your baby. And it would tide you over until the end of the month when your, when your check came in. But now we have these automated systems where people have to just jump through so many hurdles to access benefits that often people just give up in the face of bureaucracy. Because, I mean, what are you going to do? Like spend your entire afternoon, like battling the computer system? Like people have, people have lives. And it can just, it can feel like, it's so insurmountable to deal with this big anonymous computer system that you just go without. And that's not actually a better system.

JVN [00:07:12] Yeah. I mean, and that's happened in the face or in a lot of service, like service providing things, like whether it's like accessing health care or accessing assistance or educational things. So you are a professor of?

MEREDITH BROUSSARD [00:07:30] Data journalism.

JVN [00:07:32] Data journalism. So what does that look like? You? I mean, you're a professor, so that means you're like a literal doctor of, like information of that field. So like what? How did you study to become that?

MEREDITH BROUSSARD [00:07:44] So I start-.

JVN [00:07:44] Actually. What did you study? I'm so sorry. Now, how? Because obviously you had to go to school for like 10,000 years. Yeah. And you're like very, very smart.

MEREDITH BROUSSARD [00:07:50] So I started my career as a computer scientist and then I quit to become a journalist. And the reason I quit computer science is I couldn't deal with the sexism. And so journalism is a much friendlier place to be female.

JVN [00:08:07] I'm gagged. I love that answer and didn't expect it. And I love that story. I mean, I love a frank moment. Couldn't handle the, flip the table, you guys. I was just making a face like I wanted to like, flip the table, like sexism and the binary make me so mad, it makes me want to throw a table out the window sometimes, but I love it when people call out so frankly, it makes me really inspired because like speaking truth to power, queen. Yes. So then you're like, I'm going to talk about this. I'm going to like go study journalism. Interesting. We don't hear that, that many times. Like a computer scientist becoming a journalist.

MEREDITH BROUSSARD [00:08:39] Well, also, the thing is that computer scientists make like ten times as much money as journalists. So that's one of the reasons people don't it.

JVN [00:08:47] Major. I mean, pocket books are like a thing. Everyone does like, yeah, that's, that's a thing. So that takes you to journalism. So you go start studying journalism, which I think that's a whole other podcast, like how do you become a journalism-? Or how do you, like what's journalism school like? Because it's like integrity. It's like learning to interview. It's like using your, like, journalism. Tell me. Like in a nutshell.

MEREDITH BROUSSARD [00:09:11] It's so fun going to journalism school. I think that more people should go to journalism school, obviously, because I teach at a journalism school. But we,

we do everything. We do how to interview. We do how to research. So one of my favorite classes that I teach is called "Research for Writers", and it's about doing deep dives into archives. And how do you, you know, how do you sit in a room with somebody and look into their eyes and talk to them and have a really meaningful interaction? But then we also talk about ethics and we talk about the big issues of the day and we talk about science. And so you just get to do this incredible range of thing,. As a journalist. And so my particular brand of journalism is kind of attuned to social justice issues. So what I do as a data journalist is I find stories and numbers and I use numbers to tell stories. And then because I have this background in computer science, I can also write code. So I can write code in order to commit acts of investigative journalism.

JVN [00:10:15] You're kind of like the Brené Brown of like numbers, science, journalism and storytelling.

MEREDITH BROUSSARD [00:10:23] That is the biggest compliment you could possibly give me. Thank you.

JVN [00:10:27] That's like, that's-. I mean, we love. Like all hail.

MEREDITH BROUSSARD [00:10:28] Love.

JVN [00:10:29] Like. Wow.

MEREDITH BROUSSARD [00:10:30] Yes.

JVN [00:10:31] Major. So that's major. So basically. And then. So what you're saying is, is that as like kind of looping all that together, trying, is like that as tech has been introduced into a lot of service things, like whether it's like access to assistance for education, health care, public health, like food, all sorts of like, medical, food assistance, like social services things. As tech has been introduced. It's actually been introduced to like prevent people from getting the help or the care that they need.

MEREDITH BROUSSARD [00:11:03] Yeah, the narrative about tech has always been that, oh, tech is so great. But as a journalist, you're always looking for, OK, where is it maybe not so great as well? So I think we may need a more balanced narrative about technology. Sometimes it's really fantastic and sometimes it's really terrible. And we need to report on it the same way that we report on anything else. Right? So a lot of tech journalism is just about, oh, the new iPhone is coming out and it's so great. I'm way more interested in something like how is technology being able to or being used to prevent people from accessing benefits? How is technology being used at airports to persecute people who are nonbinary? How is, you know, how are databases being leveraged to purge voters as part of a, as part of a scheme to-?

JVN [00:12:09] Literally suppress the vote.

MEREDITH BROUSSARD [00:12:10] Yes.

JVN [00:12:11] Like the suppress, like the Dem-, like the Democratic will of the people. So let's break that down. So at airports, there is facial recognition technology that, like we don't even see. Right? Like, 'cause isn't it just like, like checks you in when you're walking in and out of doors and stuff?

MEREDITH BROUSSARD [00:12:26] Well, let's talk about facial recognition technology, because this is a whole can of worms and official recognition technology is really being, it's being

weaponized, nowadays. So people sometimes think that facial recognition technology is really cool and because it's really cool. We should just use it for everything.

JVN [00:12:47] Can I tell you? Did you see the "Minority Report" with Tom Cruise? Back in like the 2000s with those twins?

MEREDITH BROUSSARD [00:12:53] Yes. Prescient.

JVN [00:12:53] Excuse me, not the twins. The triplets. Who says that? Ugh, Jonathan, that facial recognition thing where they scan your eyes in the malls and stuff, that, I've been scared of this facial recognition since 2000 and whatever that movie came out in.

MEREDITH BROUSSARD [00:13:06] With, with good cause. You are very smart to be scared of it. So there is a, there's this proposal to put facial recognition in, into public housing. In order to to like affect the locks on people's apartment, like you would have to use your face to unlock the front door of your apartment in public housing. In Massachusetts.

JVN [00:13:30] Why?

MEREDITH BROUSSARD [00:13:31] Exactly.

JVN [00:13:32] In Massachusetts?

MEREDITH BROUSSARD [00:13:33] It's, again, it's Techno-Chauvinism. The idea-.

JVN [00:13:35] That's being, that's being proposed in where?

MEREDITH BROUSSARD [00:13:39] Well, so it is, it was being proposed. It worked badly. And now there's a bill saying we need to prohibit this.

JVN [00:13:49] Oh, got it.

MEREDITH BROUSSARD [00:13:50] Yeah.

JVN [00:13:50] Cool.

MEREDITH BROUSSARD [00:13:51] Yeah. So, Representative Yvette Clarke is doing some really interesting work around facial recognition and making sure that it's not being used inappropriately. So she has a bill called the Algorithmic Accountability Act that is really groundbreaking. I think she proposed it with Corey Booker. And it's really groundbreaking work that says that if algorithms are being used to make decisions on people's behalf, these algorithms need to be transparent and we need to be able to audit these algorithms.

JVN [00:14:25] Because an algorithm gets put, how does an algorithm get put in place? Like for any, any, any set of anything?

MEREDITH BROUSSARD [00:14:33] Such a good question. OK. So facial recognition runs based on algorithms. An algorithm is basically a recipe. It's a set of steps for completing a computational process.

JVN [00:14:45] OK. You said computational like six times. I've been trying to be like you're interviewing a professor. Be fucking cool, Jonathan. What does computational mean? I can ask a question.

MEREDITH BROUSSARD [00:14:55] That is a great question. I'm so glad you asked. So one of the things I do in the book is I break down exactly what are we talking about when we talk about using a computer? Because often we talk about things like A.I. or computation without really understanding what we're talking about. So like, let's talk about what a computer does. A computer literally computes. It just does math. It's a machine for doing math. And actually, I brought a computer with me. Do you want to see it?

JVN [00:15:25] Yeah.

MEREDITH BROUSSARD [00:15:25] OK. I brought a prop. Maybe we'll, maybe we'll shoot this in the-.

JVN [00:15:31] Yes, yes. Yes. It's really good content, it's really good content.

MEREDITH BROUSSARD [00:15:35] OK.

JVN [00:15:36] But it's in a really fierce bag.

MEREDITH BROUSSARD [00:15:38] Thank you.

JVN [00:15:38] Yes. Oh, my. Oh, my. What is it? What's in there?

MEREDITH BROUSSARD [00:15:48] All right. So here I have a computer. This is a Raspberry Pi computer. I'm going to pass it over to you so you can.

JVN [00:15:55] Oh. Is it what's in my phone?

MEREDITH BROUSSARD [00:15:57] It is a lot like what's in your phone. So when we actually look at what a computer looks like, it demystifies it a lot. So what I recommend is taking an old computer that you have sitting around your house and like pop the case open and look at it and look at the places where the ports go in. So, like, see the, the round bit, right there on the side. That's where the power goes in.

JVN [00:16:21] Ooh. Interest.

MEREDITH BROUSSARD [00:16:21] Yeah.

JVN [00:16:22] OK. This is like the best content for our video. And this is like, I've never had someone give me such good content for the vid-, I'm so excited. We're going to take a really quick break. We going to have a few little baby commercials. And then we'll be right back with more Professor Meredith Broussard right after this. Welcome back to "Getting Curious". This is Jonathan Van Ness. OK, back to computation. Computation is?

MEREDITH BROUSSARD [00:16:55] Is computing, it's doing math. So what this, what this computing machine we have in front of you is, is, it is a machine for doing math. So everything that we do with a computer ultimately comes down to doing math. When you do image recognition on a computer, what you're doing is you're taking, you're taking an image from the real world and it gets translated into a grid. The grid is made up of pixels. So, you know, when you buy a camera. It tells you how many megapixels it is.

JVN [00:17:25] Yeah.

MEREDITH BROUSSARD [00:17:26] That's what is the resolution. So it's like how many pixels.

JVN [00:17:31] Like how many little spots can live on that square?

MEREDITH BROUSSARD [00:17:33] Exactly. And so when you do image recognition, it's really about looking at that grid and saying, does this shape on this grid match more or less, mathematically, the shape in the grid, that is already in my memory.

JVN [00:17:51] So when it comes to facial recognition then it inherently would have to be racist, wouldn't it?

MEREDITH BROUSSARD [00:17:56] Exactly. So facial recognition systems generally are better at recognizing light skin, than they are recognizing dark skin, and they're generally better at recognizing men than they are recognizing women. And they also don't take into account nonbinary individuals at all. Also, people with, with disabilities often have trouble being recognized as human by facial recognition systems. So, for example, I had a student who had a condition where he didn't, he didn't have eyeballs. And so what the facial recognition systems are looking for is they're looking for shapes that look like conventional eyeballs.

JVN [00:18:42] I just, I'm left speechless from thinking about what it is to live with, with living without eyeballs. Like, I just, I just don't even think about it. It took me that many seconds to get a sentence together. Good for me.

MEREDITH BROUSSARD [00:18:56] Yeah. I mean, there's lots of, there's lots of ways of existing in the world. Right? Like, there are all kinds of ways existing that I haven't even thought of, but the creators of these computational systems also have not thought of these different ways of existing in the world. And that's a kind of bias. You know, so somebody, somebody I know who's, who's visually impaired. She has a condition where her, her eyeballs kind of don't focus. They're kind of doing stuff. And, so if she goes and does one of these job interview, video job interviews. What the video job interview software is looking for is they're looking for somebody who maintains eye contact. Well, if you have a disability, that means that you're not maintaining eye contact, you're automatically going to get kicked out by this algorithm.

JVN [00:19:55] So. Because algorithms are, as technology is introduced to so many different facets of how we interact with life, because it really does permeate like how? I mean, when you were talking about it initially, it made me think about the Affordable Care Act and how confusing that was for me as like a 26 year old. Like when that first came out, I was like, that whole navigating that whole system was like so, at least for me personally in California, is like overwhelming. I didn't really understand it.

MEREDITH BROUSSARD [00:20:25] Oh, it was brutal.

JVN [00:20:26] Yeah. And I mean, and for all like the good and I understand like, you know, how important having insurance is. But it's very difficult to navigate and technology has permeated so many interactions and how we navigate so many things. But it's like that saying of like the road to hell is paved with good intentions. It's like I don't think, I don't think that these scientists intend when they start off making these to be, I mean, I would imagine that people be like, how do we serve more people? Like how do we help more people? But then in the, in so doing like it gets bad or no? It's just like a systematic way to like oppress people, people from being able to gain the access that they need because it's like really confusing for me to sign up for health insurance. Now that I think about it. I really couldn't figure it out.

MEREDITH BROUSSARD [00:21:04] Yeah. Because it was really badly designed, the system. And so I would argue that badly designed technology is not better than, than like the old system of filling out a paper form. Like most people can handle filling out a paper form. But when you have to use the system, this system on the Internet that crashes all the time and loses your information and then it's really confusing and you can't come back to it and complete later.

JVN [00:21:34] And getting your passwords in the, it was a lot.

MEREDITH BROUSSARD [00:21:37] Yeah, it's kind of a lot. And so-.

JVN [00:21:39] And like written in like, especially if it's in terms of health care, it's like written in a jargon that's like not, it's like literally not comprend-, or like not comprehensible and like.

MEREDITH BROUSSARD [00:21:47] Exactly.

JVN [00:21:48] I am not someone who, I mean, I can understand most things.

MEREDITH BROUSSARD [00:21:52] You're a smart person like you, you should be able to sign up for health care.

JVN [00:21:56] Well, I think identifying anyone face based on like how many pixels it takes up or like the measurements of stuff that is giving me Big Brother. It's giving me, is giving me all sorts of scary things.

MEREDITH BROUSSARD [00:22:10] Yeah, agita overall.

JVN [00:22:11] Yes. Yes.

MEREDITH BROUSSARD [00:22:13] Well, so let's, let's take, let's take a small piece of that. Let's go back to our algorithms bias. Is A.I. racist? Techno-Chauvinism tells us that algorithms are somehow better or more objective than people. And that's completely wrong. OK?

JVN [00:22:33] Because we understand nuance.

MEREDITH BROUSSARD [00:22:34] We understand nuance. And computer programs are created by people and people have unconscious bias. Like we're all working on our unconscious bias. We're all trying to become better people. But our unconscious bias, like we can't see it because it's unconscious. Right? And so what we do is we embed our unconscious biases in the technology that we create. And so the world that we had before technology was, you know, getting more egalitarian. But then we said, oh, we're going to, we're going, you know, we're going to replace all the existing systems with technical systems. And so then-.

JVN [00:23:15] Did that kind of happened in the 90s, like as the Internet was coming up and it just was all kind of like a gold rush of like just Internet age things?

MEREDITH BROUSSARD [00:23:24] Exactly. And people said things like, oh, we're, we're just going to, like, make the world better by doing everything with a computer now. And, you know, there are so many things in the world that you can do better on computers, but not everything. So we've, we've had the Internet for 20 years now. And so we really need to be more deliberate about our decisions. And we also need to recognize that doing things on the computer is not always faster, cheaper and better. Often it's far more expensive and time consuming. So I see this in my data journalism work. People often assume that data journalists are going to be able to do things really fast and really cheap because they're using a computer. They're like, oh, you know,

you just buy the computer. And then just like, you know, make the journalists use the computer and then it's just cheaper. But it's exactly the opposite. So doing a big data journalism investigation, you need more people than you do for a traditional investigation. You need more time. And it's really, really expensive. So-.

JVN [00:24:26] 'Cause you have to double check all the work of all these computers that can do all this work really fast. And you have to do it by hand. But you can actually look through the issues more readily.

MEREDITH BROUSSARD [00:24:36] Well, we have to build the code, right? So when you, when you build code in order to audit algorithms.

JVN [00:24:46] Ooh.

MEREDITH BROUSSARD [00:24:46] Yeah, so what we do as data journalists is we often build code in order to audit the algorithms that are being used to make decisions on our behalf. So there's a, there's a very famous investigation by Julia Angwin, who is then at ProPublica. If you're not reading ProPublica, you absolutely should be.

JVN [00:25:04] Do they have an app, honey? What do they have? An app?

MEREDITH BROUSSARD [00:25:07] I don't know if they have an app.

JVN [00:25:07] Got to get an app. But they broke that one story about those hideous, the Border Patrol hideous Facebook group.

MEREDITH BROUSSARD [00:25:14] Yup. Yup, exactly. They have done all kinds of groundbreaking work.

JVN [00:25:17] Yeah. We love ProPublica.

MEREDITH BROUSSARD [00:25:18] They're fantastic. And the really groundbreaking computational journalism story they did, under Julia Angwin, was they discovered that there was this algorithm called COMPAS that was being used to, quote, unquote, "predict" whether people would reoffend after they were, after they were arrested. And so these risk scores, future risk scores were being given the judges. So judges could use the risk source to try and make decisions about whether people are going to get released.

JVN [00:25:49] Wow.

MEREDITH BROUSSARD [00:25:50] And the thing is, the algorithm was biased against black people.

JVN [00:25:52] I mean, it's shocking that that program was even created. Like, why would that even be put in play? I mean, isn't there like probation officers? Like aren't there suppose to be people who work with people like when you get out of like incarceration, like hopefully not reoffending stuff like but through like supportive means because like, you actually want to help, like rehabilitate?

MEREDITH BROUSSARD [00:26:15] Yeah. I mean, our penal system overall needs like a giant amount of, of help. Like we need, we really need to confront the mass incarceration problem. We're talking about the role of computation in that, but so the COMPAS algorithm.

JVN [00:26:30] Yeah. Where is the role of comput-, yeah. Because I mean mass incarceration and like the max, or the minimum sentencing of the 1994 laws and the, and especially like the incarceration of like nonviolent drug offenders and especially how it's un, hugely, hugely impacted people of color, specifically like in marijuana offenses, that have like, it's ruined people's lives. I think, and like the pocket's that it's lined to people to, like, put people in jail forever when really it's like addiction that we're fighting, like not these people. So how does computation have, how does that interact with the mass incarceration issue?

MEREDITH BROUSSARD [00:27:06] So let's talk about the process. And bear with me for a second. Because it's not always sexy to talk about process, but this is one of the things that you think about as a data journalist, because you have to look at every step in order to figure out what's going wrong. So you think about the process. Somebody gets arrested and they get taken to the precinct. And then there's a, there's a bail hearing, there's a trial, there's a sentence that you can serve and then there's probation. So at every step of the way, there are different ways that you can use computers. And so people have been thinking for a long time, oh, hey, how can we use computers to make these processes more efficient? Because this, this mania for efficiency is, you know, part of capitalism. And for at least 20 years now, people have been thinking about ways we can use computers to make processes more efficient. So the COMPAS algorithm came in at the point where judges were looking at people who had been arrested and they could use the COMPAS algorithm to make a decision about, OK, is this person a flight risk for bail? Or is this person likely to reoffend? If they're likely to reoffend then OK, well, we should probably give them a longer sentence. Now, the COMPAS algorithm was biased against black people. There was no way mathematically for it to treat black defendants and white defendants fairly. And so if you were using these COMPAS scores to decide on somebody's sentence, for example, as a judge, then you are going to give black people longer sentences because it looked like, according to this algorithm, that they were more likely to reoffend.

JVN [00:29:00] And this is like a nationally used program?

MEREDITH BROUSSARD [00:29:04] Everywhere. And so one of the things that ProPublica did.

JVN [00:29:09] Standby. Because that's a really good, well, I hate to use this like fucked up situation as a cliffhanger, but we do just coincidentally have to take a break. So we're gonna listen to a few commercials. We'll be right back with more Meredith Broussard right after the break. Welcome back to "Getting Curious". This is Jonathan Van Ness. We have a NYU associate professor, Meredith Broussard. Data Journalist, A.I. researcher and author of "Artificial Unintelligence: How Computers Misunderstand the World". I hope I can find my hair after this episode because you're really blowing it back. But I appreciate that. So basically, this COMPAS algorithm was something that the journalist whose name is?

MEREDITH BROUSSARD [00:29:58] Julia Angwin.

JVN [00:29:58] Julia Angwin did and basically found that nationally there was this like, horrific algorithm that was used like in the computer databases, like across the country for judges to reassign-, or for judges to assign sentencing. Which was I'm like not surprised, but I'm sad, shocked. Yeah, tell me about– tell me more.

MEREDITH BROUSSARD [00:30:25] Well, so we can actually use this, this COMPAS situation as a lens for thinking about other places where this might be happening.

JVN [00:30:32] Is it still in use? This COMPAS thing?

MEREDITH BROUSSARD [00:30:36] God, I don't know. Definitely a lot of places have have severed their ties, but I know in Philadelphia last year they were trying to put in a similar system. I mean, this, this COMPAS system was not unique. Like, there are lots of people who are out there trying to get more computation used in, in the justice system.

JVN [00:31:00] Well, anything that would make it faster, because at the end of the day, whether it's privately owned, the prison, or if it's publicly owned, isn't it in their interest to incarcerate like more people? Because doesn't that put more on their bottom line?

MEREDITH BROUSSARD [00:31:12] Exactly.

JVN [00:31:12] So any way to, like, make the system for streamlining, putting people in their facility, they're going to be in favor of in the name of like efficiency?

MEREDITH BROUSSARD [00:31:21] Exactly. Exactly. You are now thinking like a data journalist.

JVN [00:31:25] So how do we? Do we just need more reporting on this problem and how computers actually make the problem mass incarceration worse?

MEREDITH BROUSSARD [00:31:34] We do. We need to have more journalists. We need to pay them really well. So we have a problem in data journalism where people will get a lot of technical skills in the newsroom, but then they'll leave for industry because they can get paid more working for Facebook than they can, you know, working for The Washington Post. And so that's a problem. And we should also think about that issue on the K through 12 education side. We need to pay teachers more because right now teaching is a very low paid profession. If we want people to be really, really well educated about the sort of sophisticated computational issues in society nowadays, we need to infuse that through the K through 12 education system. And so we need to pay our teachers more so we can keep teachers in, in public schools and private schools.

JVN [00:32:31] But so how do people, how do people of color and people who are marginalized by this algorithm bias rise above? This world isn't getting like any less technologically integrated. So. Because we're already so immersed in it, like what can people do to try to get some leverage or some, like, power in this situation?

MEREDITH BROUSSARD [00:32:55] I think that people can push back against Techno-Chauvinism. People can say, no, I don't think that we need facial recognition at airports. I don't think that we need facial recognition for people to get into their houses. I don't think that, you know, a self-driving car is better than a car driven by a person. We can, we can kind of chip away at this, at this bias.

JVN [00:33:22] Self-driving cars is a major one.

MEREDITH BROUSSARD [00:33:25] Oh, well, please, let's talk about self-driving.

JVN [00:33:27] Yeah.

MEREDITH BROUSSARD [00:33:28] All right. So first of all, self-driving cars do not work as well as the marketers would like you to believe. They're not coming anytime soon. I've been saying this for years, and there was just a big article in The New York Times about it this week. I was like, yes, finally, the Times is catching up. So they don't work. And one of the things I did in the book is I did a really deep dive into the code and the data used to create self-driving cars because actually the first time I rode in a self-driving car was in about 2006.

JVN [00:33:57] Oh really?

MEREDITH BROUSSARD [00:33:57] And it almost killed me. Almost killed me. It was terrifying. So I already did not really trust that these like kind of crazy engineers could actually make something that would not kill people. And as I learned more about the code inside self-driving cars and I thought about the unconscious bias embedded in computational systems, I realized that the problem of who gets recognized as human by A.I. systems, by computer systems, is really an acute problem in self-driving cars, because the image recognition used in a self-driving car is the same as the image recognition that's used in a video game system, which is really, really similar to the image recognition that's used in, say, a soap dispenser. OK. Have you seen the viral video about the racist soap dispenser?

JVN [00:34:56] No.

MEREDITH BROUSSARD [00:34:57] All right. So white guy comes up and puts his hand under the automatic soap dispenser in a men's room and the soap comes out. And then a guy with dark skin comes up, puts his hand under and it doesn't work. And you might think, all right, well, maybe the soap dispenser just broke, right? But no. The guy with dark skin takes a white paper towel and puts in it under the soap dispenser. And it works. And then he puts his hand under and it doesn't work. OK. So something as simple as a soap dispenser. OK. Like what was wrong with the soap dispenser where you like pump it? OK. And so-.

JVN [00:35:31] Right.

MEREDITH BROUSSARD [00:35:32] Like it just, it doesn't make sense to me, sometimes, that people are trying to replace perfectly good technology with technology doesn't work. And I don't think that the creators of the soap dispenser said to themselves, oh, I'm going to make a racist soap dispenser. I think that they were a very homogeneous group of people with light skin. And they said, oh, it works for me. It must work for everybody. And so that is a kind of unconscious bias. But in technology that gets perpetuated. So the soap dispenser technology is the same as the technology in the video game systems, which are better at recognizing people with lighter skin than people with darker skin. OK. We've known this for years. And then that's the same technology that gets embedded in self-driving cars. Right? Because it's cumulative. So let's think about who is going to get recognized as human by self-driving cars and who is not. And is there going to be a disproportionate impact?

JVN [00:36:36] This makes me think about when we interviewed Melinda Gates and she wrote a book called "The Moment of Lift" and it's about empowering women. And like when you think about the statistics of Silicon Valley and so many tech companies and it's like so disproportionately white men. And when you were saying that the reason that you left computer science in the beginning was because the sexism situation is so bad. And when you have all of these algorithms and all of this technology written by mostly white men, it is going to lack an amount of sensitivity and awareness because the population isn't white men and actually increasingly it's becoming less so. So we'll be seeing ourselves like less and less reflected. And it's actually a way that, like the patriarchy can continue to flex its muscle because they are staffing it so thoroughly. That's why we need more diversity so much in tech.

MEREDITH BROUSSARD [00:37:28] Absolutely. So Melinda Gates actually said this incredibly interesting thing one time. She was talking about the Apple Watch and how it launched with all of these health features. But it didn't have a period tracker. And she was like, listen, like if you had more women on the team, somebody might have noticed that, hey, like if you're releasing a device that's supposed to have health tracking, like you should have a period tracker as a default as opposed to, like, having to put it on.

JVN [00:37:57] For sure.

MEREDITH BROUSSARD [00:37:57] Yeah.

JVN [00:37:57] It's literally at least half the people.

MEREDITH BROUSSARD [00:37:59] Half the people. Yeah.

JVN [00:38:01] Yeah. Like duh.

MEREDITH BROUSSARD [00:38:03] Yeah.

JVN [00:38:04] So how can we-? So how can we do better? Like is there anyone doing any better or do we really just like need so much more journalists to start to shed more light on this?

MEREDITH BROUSSARD [00:38:14] We need so many more journalists. We need to have conversations like this. We need to just admit that when we're, when we're creating technology, we're not just doing math. That technology is not the right solution for every social problem. And we need to push back against, against decisions that are, that are foolish around technology.

JVN [00:38:44] OK. Two questions and then I think we'll probably be at the end. One. Is there anyone, any computer scientist trying to integrate any more of that nuance into their tech? Or no. Like, can we? Is it possible?

MEREDITH BROUSSARD [00:38:57] So this is, that's a really good question. And this is a good time for kind of blossoming of interest in these issues. There's a very robust conversation going on around A.I. ethics, around computational ethics and about the role of technology in society. So a couple of resources that I really like. I mentioned Virginia Eubanks' book, "Programmed Inequality". There's also a book by Ruha Benjamin called "Race After Technology: Abolitionist Tools for the New Jim Code".

JVN [00:39:31] Interest.

MEREDITH BROUSSARD [00:39:31] Yes, it's fascinating. Definitely pick it up. There's a book by Safiya Umoja called "Algorithms of Oppression: How Search Engines Perpetuate Racism". So we can, we can educate ourselves about how racism, sexism, ableism, classism, how all these things are embedded in our computational systems and how we can build better, more inclusive technology systems. One really simple thing that we can do to start is to build technology using more diverse teams.

JVN [00:40:08] That's the thing that screams out the most, is that we like need more, because what you make is so, who is behind the making of the product is so reflected in the product itself. Like, that's a-. I also realize that I like have an extra question. One. It's this one. So like in, you know, like the home movies of like, like did you see that one with like Hilary Swank. Where like, "Mother": on Netflix where like the robot, like it's a post apocalyptic world where like, where we're like run by robots. It's like a scare scare robot world.

MEREDITH BROUSSARD [00:40:38] I sometimes can't watch robot movies because they make me too crazy.

JVN [00:40:42] So, like, as someone who is like a computer science expert, slash journalism expert, like, I don't need to be scared of killer robots. Right? Like.

MEREDITH BROUSSARD [00:40:51] You so do not need to be scared of killer robots.

JVN [00:40:54] Yeah.

MEREDITH BROUSSARD [00:40:54] So A, killer robots are not coming. B, nobody is ever going to make a computer that thinks like a human or like replaces a human. And also likely the computers are not coming for your job.

JVN [00:41:09] Why? On question, or on statement, two and three.

MEREDITH BROUSSARD [00:41:15] I feel like I need to write these down to like unpack.

JVN [00:41:17] Well, the second one was like, why? Yeah. Unpack for me please. Why? Why aren't we replacing ones that are more human like? Because isn't that a goal to, by incorporating the nuance like wouldn't that be part of making it more human?

MEREDITH BROUSSARD [00:41:30] Here's the thing. If you want to create something in your own image, have a baby.

JVN [00:41:36] Mmmm. I don't want to do that.

MEREDITH BROUSSARD [00:41:38] Well, then I think you're probably going to be OK.

JVN [00:41:40] I want to have a cat foundation.

MEREDITH BROUSSARD [00:41:43] There we go.

JVN [00:41:44] Yeah.

MEREDITH BROUSSARD [00:41:44] OK. And the cats are gonna do like their own wonderful cat thing. But it's really foolish to try and make a machine that's like a person. Because we can already make people. Like we already know how to do that.

JVN [00:41:56] Oh, I get what you're saying. But. However, however and I think we can agree, while people can be great, people can also suck.

MEREDITH BROUSSARD [00:42:05] Oh, definitely.

JVN [00:42:05] So wouldn't it be better if you could make your own person that was like. Yeah. See, I feel like I should write the next robot movie. I would probably, it would probably be so chic.

MEREDITH BROUSSARD [00:42:15] I would definitely come and watch your robot movie.

JVN [00:42:16] There'd be gymnastics, there'd be probably rhythmic gymnastics. There would be so much.

MEREDITH BROUSSARD [00:42:21] That would be amazing. Wait, is that the one with the ribbons?

JVN [00:42:23] Yes. And the batons.

MEREDITH BROUSSARD [00:42:25] That's my favorite.

JVN [00:42:25] The batons and the like maraca looking things and the ball and the hula hoop. So my ultimate question was this, and this is really pertinent to "Artificial Unintelligence", which everyone should really read and know. But it's like, how can we push back against this Tech-Chauvinism?

MEREDITH BROUSSARD [00:42:42] I think one of the things that we can start with is we can start with being really clear about the term artificial intelligence. Right? So we get really confused between Hollywood images of A.I. and real images of A.I. So everything you hear from Hollywood, like, you know, the "Terminator" or the Hilary Swank robot or "Westworld", all that stuff, it's totally imaginary.

JVN [00:43:07] Mmhmm.

MEREDITH BROUSSARD [00:43:07] And so that falls into a category we call "general artificial intelligence". The singularity also falls into that. And any kind of robot apocalypse.

JVN [00:43:18] Yes.

MEREDITH BROUSSARD [00:43:18] And then there's what's actually real. Which is what we call "narrow artificial intelligence". And interestingly, the kind of A.I. that is out there in the world right now is something called "machine learning", which sounds like it's killer robots. But actually, it's a bad name because it's just statistics. It's computational statistics on steroids. So machine learning is a kind of narrow A.I. It's real. So a general A.I. is imaginary, narrow A.I. is real. Machine learning is narrow A.I. and it's just math. It's this like gorgeously complicated, beautiful math, but it's just math.

JVN [00:43:59] But narrow A.I. would, would impact voting.

MEREDITH BROUSSARD [00:44:03] Mmhmm.

JVN [00:44:04] Incarceration. Health care.

MEREDITH BROUSSARD [00:44:06] Facial recognition.

JVN [00:44:06] Facial recognition, health care, even-.

MEREDITH BROUSSARD [00:44:12] Education.

JVN [00:44:12] Education.

MEREDITH BROUSSARD [00:44:14] Yeah, people are trying to, trying to figure out ways to use machine learning and education.

JVN [00:44:18] Also the environment.

MEREDITH BROUSSARD [00:44:20] Yep.

JVN [00:44:20] Like, I was just, you know, before we started recording, we were talking about Chernobyl. Like I was like freaking, like that was a lot of, that's all computation and math and scare scare.

MEREDITH BROUSSARD [00:44:29] Yeah.

JVN [00:44:29] Stuff. That was. Wow, you guy-, or people. If you haven't watched. If you have not watched "Chernobyl". Wow. Investigative. Journalism. Wow.

MEREDITH BROUSSARD [00:44:40] I'm gonna go watch it tonight.

JVN [00:44:41] It's, you'll probably finish all five episodes.

MEREDITH BROUSSARD [00:44:44] I believe it.

JVN [00:44:45] It's major. So but basically pushing back against the tech. What's it called? What's that gorgeous title again? Techno, tech?

MEREDITH BROUSSARD [00:44:52] Techno-Chauvinism.

JVN [00:44:52] Yeah, Techno-Chauvinism.

MEREDITH BROUSSARD [00:44:53] The idea that tech is superior.

JVN [00:44:55] To people stuff.

MEREDITH BROUSSARD [00:44:57] Right. Like we need, we need more nuance. Think about what is the right tool for the task. Sometimes it's a computer. Sometimes it's not. And it's not a competition.

JVN [00:45:05] And it's not because there's like basically enough room.

MEREDITH BROUSSARD [00:45:08] There is. It's such a wide, wide world. There's plenty of room for everybody.

JVN [00:45:13] OK. Oooh. Have I missed anything? It's like time to wrap, like, what? Is there like? What do we need to know, what did I, is there like? It's like yoga session time, at the end of the podcast, where it's like, did I miss anything?

MEREDITH BROUSSARD [00:45:26] Oh, yoga session.

JVN [00:45:27] Well, what do you, yeah, the yoga session of A.I. and A.I. policing and racism within A.I. Like what. Is there anything? I mean, I feel like what I hear is like the need for diversity in computer science, in journalism and in this research.

MEREDITH BROUSSARD [00:45:46] Exactly. Exactly. And really, what I, what I want people to take away from this conversation, what I want people to take away from the book is a sense of power, a sense that these are not big, complicated, abstract ideas that are totally inaccessible. They are big, complicated, abstract ideas that, that are well within your power to understand. And so I really care about people having greater computational literacy so that people can be empowered to, to fight for social justice. Right? To push back against ways that computers are weaponized against, you know, say, communities of color. I want people to feel like they're in charge of their destiny. And you don't have to just sit back and let technology make the decision or you don't have to sit back and kind of let these things happen to you because it's embedded in technology. That you have choice. You have agency.

JVN [00:46:52] Yes, agency. Yes, choice. Let's increase our computational literacy right now on some content on our Instagram feed. Thank you so much.

MEREDITH BROUSSARD [00:47:00] Thank you.

JVN [00:47:05] You've been listening to "Getting Curious" with me, Jonathan Van Ness. My guest this week was Meredith Broussard. You'll find links to Meredith's socials in this episode description of whatever you're listening to the show on. Follow us on Instagram and Twitter @CuriousWithJVN. Our theme music is "Freak" by Quiñ. Thank you so much to her for letting us use it. And honeys, introduce a friend. Show them how to subscribe. Podcasts are a wonderful world and we want everyone to be in them. "Getting Curious" is produced by Emily Bossak, Julie Carrillo, Rae Ellis, Harry Nelson and Colin Anderson.