

# Coded Bias: *Race, Technology, and Algorithms* Transcript

## SPEAKERS

Alison Cooley, Shalini Kantayya, Beth Coleman, Meredith Broussard

### **Alison Cooley** 00:12

Hello, and welcome everyone to *Coded Bias: Race, Technology, and Algorithms*—part of the Blackwood's online, distributed conference program, *Running with Concepts: The Mediatic Edition*. I am Alison Cooley, the Assistant Curator at Blackwood Gallery, and I'm pleased to introduce our event today, I'm gonna offer a short visual description of myself: I am a white woman with fair skin and brown hair. I'm sitting against a gray wall, and wearing a white shirt and a kind of jacket and I wear these big pink glasses every day. And I'm wearing some black dangly earrings. I wanted to begin by acknowledging and recognizing the lands on which we gather today. And the acknowledgement I'm going to share is informed by various methods and practices by which we acknowledge territory here at the Blackwood but also informed by many other land acknowledgement practices. So I want to recognize Jill Carter's approach to the notion of debt and digital technology, and the work of the #callresponse collective, both of which have impacted the land acknowledgement that I'm going to share. The University of Toronto Mississauga, where the Blackwood Gallery operates, is situated on the traditional lands of the Huron-Wendat, the Seneca, and the Mississaugas of the Credit River. As we gather in virtual space, we recognize that the gathering is made possible by ongoing care and protection of the lands and waters in many Indigenous territories. Zoom, which supports our web recording today is headquartered in San Jose, California, on the traditional territories of the Muwekma Ohlone. Vimeo, which we are using to share this recording, and IONOS, our web-hosting platform, are both headquartered in the traditional territories of the Lenape peoples in New York and Chesterbrook, Philadelphia respectively. And there are numerous servers, network access points, incalculable kilometers of fiber optic cable that traverse Indigenous territories in order to support this meeting. So as we recognize the privilege of gathering here together, we also invite each other to consider the ongoing colonial violence on these lands that manifests in many forms of extraction, and to hold together our gratitude to these lands with a sense of debt and responsibility to their stewards and protectors. I'm pleased to welcome data journalist Meredith Broussard, documentary filmmaker Shalini Kantayya and artist and researcher Beth Coleman of UTM's Institute for Communication, Culture, Information and Technology for this conversation in response to Shalini's film, *Coded Bias*, which was just released earlier this year, in January. And the film is a really powerful document of the dangers of algorithmic bias and the work being done by many to unpack and address the

consequences of unjust algorithmic governance of life, work and public space. Thank you so much for being here.

**Shalini Kantayya** 03:46

Thank you so much for having me. And thank you to the Blackwood Gallery and to the brilliant Meredith Broussard of the film for joining us and to Beth—thank you all for being here today.

**Alison Cooley** 03:57

I'm going to share a quick little bit of access information and then I'm going to pass things over to Beth. So, because the Running with Concepts: Mediatic Edition explicitly engages with this sort of mediated space that we all find ourselves in at this moment in time, we're endeavoring to support a few different modes of access. So this event is pre-recorded, and will be available on our website for 72 hours following its release, which means that it is available in various time zones while the video screening of Coded Bias is restricted to Canada. We encourage you to make use of the closed captioning for the video. We encourage people to pause, play, share, and return to the conversation throughout the 72 hours. And if you'd like you can use the hashtag #RwCMediatic. And we also encourage people to visit the Blackwood Gallery website throughout the fall and winter where we'll be not only posting future events, but also sharing documentation and reflections in multiple formats. So those are just a few of the ways that people can access this conversation and the rest of the conference. And, this is the very first program in the Running with Concepts series for this year. And so I'm really excited to start off and thrilled to welcome Meredith, Beth, and Shalini, and to pass things over to Beth.

**Beth Coleman** 05:29

Okay, um, thanks, Allison. So, Shalini, Meredith, it's really a delight to see your faces. I want to give people a little bit of description of what my face looks like, if you can't see me or this kind of thing. So I'm a giant, I'm 7-foot-2. No. Haha! I was trying to pull that off, see what I can get away with. I am a brown skinned person of mixed race, and I have a cis femme gen body, you guys can help me out with some of the language. I'm wearing a black shirt. And I have a pinkish—it's not supposed to be pink, it's supposed to be white—background, but I don't know why my light shows a little bit pink. In any case, that's me. But mostly, if you can't see me or see us, I want to with my voice welcome you to the conversation. And if you've got questions or comments or things that you want to say, we'll find ways to kind of get the audience into the conversation somehow. Um, did you guys want to introduce yourselves?

**Shalini Kantayya** 06:38

Sure, my name is Shalini Kantayya. I'm the director of Coded Bias. I am—just to give you a little description—wearing a yellow sweater and my favorite turquoise earrings, and sitting in a room much nicer than my New York apartment. I'm here in California.

**Meredith Broussard** 06:58

Hi, I'm Meredith Broussard. I am a data journalism professor at NYU. And I'm also the author of a book called Artificial Unintelligence: How Computers Misunderstand the World. It was my great honor to be in Shalini's film, Coded Bias. And I'm really looking forward to our conversation today. I'm joining the conversation from my office, in my apartment in New York, where it is lined with books. And there are other people going about their business right outside my office. So it is such a pleasure to be here today.

**Beth Coleman** 07:40

Great. Okay, so, um, I wanted to, I was so looking forward to seeing this film Shalini. So many people are grateful for it. And Meredith without sounding stalkery, I've been a big fan of your work. So...

**Meredith Broussard** 08:00

I'm so honored. Thank you.

**Beth Coleman** 08:01

Benefit for me! So I'm only gonna start with the easy questions, ready? Shalini, why make this movie? Why is this important? I know, I know, that's so easy you're like, "why would you ask that?"

**Shalini Kantayya** 08:17

It is! Yet every film that a filmmaker makes is an illogical, irrational undertaking. I think that a lot of my work has to do with disruptive technology. And whether disruptive technologies make the world more fair or less fair and for whom? And so my last film sort of explored small-scale solar as as a sort of utopian vehicle for uplifting the the working class and the middle class in the US. And then I sort of stumbled upon the work of Joy Buolamwini and other authors in the film—Cathy O'Neil's Weapons of Math Destruction, Safiya Umoja Noble's book Algorithms of Oppression, and of course, the great Meredith Broussard book, Artificial Unintelligence. And I felt that there was sort of—I fell down the rabbit hole of sort of the dark underbelly of the technologies that we're interacting with every day. And I'm sort of grateful to the brilliant and badass cast of the film for giving me an education that I hope translates through the film to audiences.

**Beth Coleman** 09:35

Can you give people a kind of high level description of what the issue is what's at stake with Coded Bias?

**Shalini Kantayya** 09:45

Oh, everything, all of it, and...

**Beth Coleman** 09:48

Right. So how do we, how do we tease that apart? Yes, it's huge...

**Shalini Kantayya** 09:52

But what I want to say is, is that everything we love everything we care about as citizens of a democracy is going to be totally transformed by artificial intelligence—in fact, is in the process of being transformed by artificial intelligence. And we think of these things, as you know—not just our information systems and what kind of information we see but things as intimate as who gets health care, who gets hired, how long a prison sentence someone serves—these very intimate sort of gatekeepers of human destiny and opportunity are already being automated by artificial intelligence. And what I learned in the making of the film, which stands on the on the foundation, of probably three decades of scholarship and activism and research, mostly by women, people of color, and LGBTQ communities, I think it's noteworthy, who have been speaking the truth about what's happening in Silicon Valley. I think that what I learned that was most disturbing is that these technologies have not been vetted for racial bias for gender bias, for even accuracy or fairness. And they exist in these black boxes that we can't examine as a society. And so what I began to see in the making of Coded Bias is that AI is where the battle for civil rights and democracy will happen in the 21st century.

**Beth Coleman** 11:38

Meredith, are you kind of in line with that kind of description of what the big picture is?

**Meredith Broussard** 11:46

Absolutely, yes. This film is so important. And I've heard from many, many people who have seen it, that this film was really their entry point into understanding what's at stake in understanding AI. And also understanding the really dramatic civil rights consequences of using more AI. So as Shalini said, these systems are not sufficiently audited for racial bias for gender bias. One thing that is a little horrifying to me is that these kinds of systems represent gender as a binary. And we know that gender is a spectrum, we've moved as a society beyond the gender binary. And yet, these AI systems still encode gender, as a binary. So that's a really good example of how these systems do not keep up. And we have this this kind of myth, that technology moves fast, that if you use technology, it'll make you really nimble. And in fact, often the opposite is true. Because what people like to do is they like to write a system that replaces human workers, and then the get rid of human workers. And then there's nobody around to update the system when it inevitably needs updates. Right? And it needs updates, for fairness, it needs updates for equality. The world is not going to stop changing. And so our technological systems need to keep up.

**Beth Coleman** 13:34

Right? So I've got a question that is part technical, but also part historical. If we talk about gender as non-binary, and increasingly, there's not just a rich experience, but a rigorous conversation about why that's important. Um, can we also talk about race as non binary? I'm thinking about the

moment in the film, when we have the South African historian of apartheid, and we're seeing the pass books, and you have all of this encoding of what category people are supposed to be in. And if we look at some of the scholarship around this, I'm thinking of, I know this is very nerdy, but if I'm thinking about Bowker and Star and *Sorting Things Out*, they've got a really good read about why it was so complicated—at least for a minority of people who could move across some of the distinctions of color lines under apartheid—what these classifications meant. So that's a long wind up to... and I direct this at Meredith, but both of you please jump in. If prediction is based on legacy, how do we think about new models of training?

**Meredith Broussard** 14:55

Oh, that's such a good question.

**Beth Coleman** 14:57

I know, another easy question. Right?

**Meredith Broussard** 14:59

Yeah. So let me start with a story. I have thought about this my whole life, because I identify as Black and my father's Black, my mother is white and I code as kind of racially ambiguous. And so the boxes that you have to check to identify yourself racially have been an issue for my entire life. Because you have to choose. And for somebody who's mixed race, you know, you have to do this kind of proactive audit of your own identity to say, "Alright, this is how I am going to consistently identify in order to be understood by technocratic systems," which is absolute nonsense, because identity is so much more than that. But this was the background that I came to computer science with. And so in the film, Joy Buolamwini—a really remarkable researcher—she has this great moment where she's trying to build a mirror that is going to recognize her face and give her some, like, deliver her an inspiration every morning. And then the mirror doesn't recognize her face. And it's this gorgeous moment. I mean, it's bad for life, but it's good for art. It's this moment where the technology has betrayed her. And she decides to investigate why. And so I love watching that moment in the film. And for me, the moment when I realized that was when I was filling out a census form. And I realized, "Oh, I'm not sure how I would count on the census." Right? And so this is the this is the moment that I go back to whenever I build technology. It's the moment that gives me empathy for people who identify as multiple things. And so that moment that you're talking about in the film with the you know, people who belong to multiple categories in the apartheid era—people who are liminal—this is a very, very common experience. And it's also the kind of experience that is ignored by designers of computational systems. So computational systems—AI systems specifically—are mostly designed by a cisgender white men who go to elite universities and train as mathematicians and engineers. And you know, there's nothing wrong with being an Ivy League white male mathematician. Some of my best friends are Ivy League-educated white male mathematicians! But the problem is that when you have technology that's created by small and homogeneous groups of people, that technology inherits the conscious and unconscious bias of its

creators. So I think one of the things that Shalini's film does so well, is it calls attention to bias and helps us understand exactly how bias works in facial recognition systems and helps us understand what are the consequences for society and for democracy.

**Beth Coleman** 18:45

So can you add on to that? Or maybe Shalini wants to jump in. But if prediction is based on historical bias, injustice et cetera, how are we thinking about: can this technology be liberated from the legacy of the data? Oh, is it Joy who says it? Shalini...

**Shalini Kantayya** 19:09

No, I'm gonna actually you're... actually quoting Meredith's mic drop moment in the film. It actually is a mic drop moment, she actually says it, quite—and I've paraphrased her actually. She says that that basically, um, you know, if we're encoding these programs with data from this past, that is, with all its systematic inequalities, we're not actually being able to have social progress. So I think that's part of it. And I, I just want to speak to something viscerally is that I was with Joy, and at MIT as sort of a camera that had facial recognition for another art project, sort of installed. And I had the experience of standing next to Joy and the computer could see my face, and the computer could not see her face. And even in the film, I don't think it could capture how I felt in that moment, because it really felt like, "wow, um, you know, when the constitution was signed, black people were three fifths of a human being. And here we're sitting at a computer who's looking and doesn't see Joy as a human being doesn't recognize her face as a face." And to me that was like this stark connection of how this, you know, how racial bias can be replicated. And I think when you experience it viscerally—and that's not even a misidentification that comes with police, law enforcement, frisking you, or some infringement on your civil rights—just that visceral experience of not being seen, I think has implications that we need to talk about more.

**Meredith Broussard** 21:07

And that phrase: who gets to be human, or who gets recognized as human is a phrase that, you know, that just resonates with me. Because we've put so much faith in computational systems as interpreters of the world. And yet, these systems are making judgments all the time on who gets considered to be human. And it just reminds me of centuries of oppression and all of the social problems that have evolved from people not being considered human, not being considered good enough or part of, you know, part of hegemonic culture. And it's particularly absurd that there would be any system in the world that does not recognize Dr. Buolamwini as being remarkable. Because one of the great joys of this film is watching Joy, because she is just a remarkable human being.

**Beth Coleman** 22:13

Yeah, she's she's beautiful in it, and really moving. And is able to code-switch between actual input at a keyboard, speaking in the language of computational design, and also speaking to a broader audience really, really inviting. So we're super happy to celebrate her.

**Shalini Kantayya** 22:39

I think that's true of all the scholars in the film. I would say I think that we grapple you know, in the film, we sort of grapple with what intelligence is like, in Meredith's book, what is intelligence? And I think that in the film, I realized that all of the data scientists and mathematicians, I think there are seven PhDs in the film—it's one of the smartest group of human beings I've ever interviewed. They have those advanced degrees and understand computational science, and my eyes glaze over. If I get half of what they say, I'm very lucky. But at the same time, they have a sense of profound humanity. And I think part of that comes from having a double identity: being of color, being a woman, being queer, being Jewish, had some sort of identity that allowed them access to a deeper part of their humanity. And so they're able to see the technology with the lens of the marginalized, the lens of who might be harmed, and to bring some real human-ness and some heart to the technical. And to me, that is actually what intelligence is.

**Beth Coleman** 23:50

I have a question that goes in two different directions. So I'm going to ask one. And then if you want, I'll ask the other, or you can answer... figure it out! Here's my question. I'm building on what Meredith has pointed to—many people pointed to—in terms of the homogeneity of who's in these rooms, how tiny (I mean, the rooms might be big, but it's really small number of people). And it's a small number of incredibly powerful companies, groups, industry groups. And right now we're talking US-centric, we'll talk about China a little bit down the line. My question is, in addressing diversity—and diversity here is a code for if the implication is we're not going to have certain kinds of bias reintroduced all the time. Is it enough to have that room have different types of people in it? And I would ask that question—I've asked this question of someone like Timnit Gebru, who is, you know, in the trenches working on this stuff at Google Brain and Google ethical AI, whatever it's called—if we are working really, really hard to make sure that the data is diversely representative, aren't we going to be on a kind of, we'll just be trying to fix the problems, fix the problems, fix the problems, as opposed to rethinking how we're designing the systems from kind of the ground up? Is that too many things at once? That wasn't even the second question

**Shalini Kantayya** 25:31

I think you're getting at something like: part of the issue is that it's inclusion, right, that this is, as Meredith points out, this is a small group of white men, you know, largely under 30, that are doing this kind of work. But I think that you're onto something in saying, for me, it's not an algorithmic solution. If we have facial recognition that works perfectly on everyone, we're just going to have perfect invasive surveillance. Right? And so, for me, it is more the question that I'm trying to ask in Coded Bias is, you know, sometimes we don't even need an AI to make that decision. Sometimes

we need a human solution. Right? Is understanding that. And then the other thing is that I'm trying to question because I don't believe that the solution is having a perfect algorithm—I think that's only part of the scenario—I think that for me, what's terrifying is that essentially Joy through her work at Gender Shades—and the supporting research of Timnit Gebru and Deborah Raji—point out that that systems, that were not on a shelf somewhere, were racially biased. This was already being sold to ICE for immigration, already being sold to the FBI, already being deployed largely in secret at scale by US police departments across the country. And somehow three scientists figured out this is racially biased, and the tech companies missed it. And for me, just the fact that that can happen points to a hole in our society, which is, how are these technologies being deployed at scale, when they're so powerful, and have so much capacity for harm? Why isn't there something like an FDA for algorithms, something where we have to prove that it's safe, and will not cause unintended harm to people? And that's, I hope what we're we're moving to is an acknowledgement that data rights are civil rights, and that we need some protection under the law that, that if there's anything I'm saying, in Coded Biases it's "please don't leave the tech bros alone."

**Beth Coleman** 27:55

Meredith, did you want to talk about fixing the algorithm or fixing the data set or even fixing who's in the room? Like, is that one of like, one- and two-step? Or is that a solution unto itself?

**Meredith Broussard** 28:11

I think we need more diverse people in the room, period. That is one fix. It's not in the entire fix for the problem. No. When many people see the issue with facial recognition that it doesn't recognize dark skin as well as it recognizes lighter skin, that it doesn't recognize women as well as it recognizes men, many people look at that and they think, "Oh, well, the problem is in the algorithm. We'll just improve the training data so that we have more diverse faces in the training data, and then the algorithm will be better." And Joy briefly points out that this is not the appropriate solution. Like it's not the total solution. Yes, we absolutely should make our training data more diverse. But we should not deploy facial recognition in policing, because it disproportionately affects vulnerable communities. It disproportionately is weaponized against communities of color, against poor communities. So making the algorithm better is a step and is important to do, but it doesn't actually fix the problem. And so I want to go back to something that Shalini said earlier about her earlier work in in utopian visions. And I think that thinking about utopia is so important when we're talking about technology, because the urge to say, "Okay, well, can't we just tweak this and make it better? Can't we just tweak this and make it better?" is actually a utopian fantasy about "Oh, can't we make a machine do this, right? Can't we make a computer do this?" And we somehow imagine that if we can make a good enough computer, then all the problems of humanity will disappear, which is such a wonderful vision, but is exactly that: a vision, a utopian vision, and is completely impractical, because there is no machine that will get us away from the essential problem of being human.



**Beth Coleman** 30:32

When is it a great thing to not be seen by advanced automation? When is it actually a great relief to use your laser pointer or your dark skin or whatever it is knowingly or unknowingly to not be captured?

**Shalini Kantayya** 30:54

Well, certainly the people of Hong Kong would say, "when you're protesting," right? You don't want your face to be instantly recognized and pulled up to a social media profile. And I think the people of Hong Kong and the pro-democracy protesters in Hong Kong have been incredibly inventive in how they're, they're resisting authoritarian use of facial recognition. But the truth is, is that my concern is, is just that we can't opt out of a lot of these systems. And I know we're here together on zoom—it's the only way we can sort of all be together. And unless we have some laws that protect us, I feel that we don't live in a culture where we can opt out of these systems anymore.

**Beth Coleman** 31:42

Right? Is the legislative route one that you predicting good success here? And I ask because I'm really moved by Cathy O'Neil's—it's not just a plea, it's a demand—that these things must be demonstrated before they can be released out into the world, before they can go to market. Joy speaks in front of a congressional body like, the conversation is moving along. But in your experience of what legislation can do as a protective, often the harm has been done. And that's when it becomes an issue that can be ruled on in some ways. But let me.... that's an inelegant way. But I think it looks like something's hit.

**Shalini Kantayya** 32:42

I get your question, I totally get your question. And I just want to say that I am incredibly hopeful. I make documentaries because it reminds me that everyday people can change the world. And I've seen that already in the making of Coded Bias. In June, we saw sea change that we never thought possible, which is that IBM said that they would get out of the facial recognition game, stop selling it, deploying it. Microsoft said they would stop selling it to police, and Amazon in a good gesture said that they would press a one year pause on its sale of facial recognition technology to police. This was sea change that I never thought possible when I began making this film. And it was brought about in part because of the integrity of the scientists in my film: Joy's work, Gender Shades, supported by Timnit Gebru and Deborah Raji, which proved this stuff was racially biased, but also the largest movement for civil rights and equality that we've seen in 50 years on the streets of literally every city across the US. And I think people are making the connection between the inherent value of Black life and racially biased invasive surveillance technologies that disproportionately impact those same communities. And so I owe those activists a debt of gratitude, because they have changed the way my film is received, and shown that we are ready to have a national conversation about systematic racism. And so I, when you say like, do you think it will change? I say yes, because we're going to change it. And I and I'm not saying that without

effort, but I think that the biggest enemy we have is not Amazon, it's our own apathy. And I've seen what you know, Big Brother Watch UK: there's three young people under 30 that are preventing the rollout from real time facial recognition by the Metropolitan Police in London. You know, literally three kids under 30, and so, um, and I've seen city-by-city, when people go to their town halls and say, "we know this stuff is racially biased. Can our local police departments say no? Can our colleges and universities say no?" And so, ironically, in the US, it's been the most technology-centered cities, places like San Francisco, Oakland, Cambridge, Somerville, who've been the first to ban government use of facial recognition. And I think because of that, we have, for the first time, a national ban on the table of government use of facial recognition. And so, to me, change is possible. But I think it comes through understanding these issues. I think, these... I couldn't talk to people at parties for two years, because I couldn't explain what I was making a film about. And I think that we all need to empower ourselves and say, "I don't have to be an AI researcher to understand the technologies interact with every day and how they might be limiting my opportunity, or impacting my civil rights." And I think we all need to have those conversations. Because like I said, this is actually where civil rights are going to be fought in the next century.

**Beth Coleman** 36:11

Can we build on the history of the civil rights movement? And then where we are now? Because absolutely, the streets have been I mean—talking about disruptive technologies, guess what?

**Shalini Kantayya** 36:25

The human heart on fire is the most disruptive one.

**Beth Coleman** 36:30

Yeah, one of the things I mean, and I know you're... I'm not trying to be like, "oh, but your compare-contrast!" It's not that, but one of my questions is, how do we continue to mobilize knowledge grassroots and disruption and resistance around things when, as Zaynep and other people in the film talk about, it's so individualized. What you see on your screen is not what I see on my screen, and I got this rate for insurance, you got that rate for a plane ticket, and we feel uncomfortable, but it's, it's really, really difficult at the individual level, to try to trace things back to find accountability, or to say "this! This is, this is biased."

**Meredith Broussard** 37:22

So one really useful framework for this is to throw out everything that you know of, or that you think you know, about how computers work, and to rebuild from the ground up. So one of the things that I do in my book is I start with this is how computers work. This is the hardware, this is the software. And this is a decision, how a decision is made. And once you kind of see it at work, it demystifies it. But another framework that I find really helpful is from Ruha Benjamin, in her book, *Race after Technology*, which is about what she calls The New Jim Code. And Ruha has this wonderful idea that computational systems—that automated systems—discriminate by default. So

when you come into it with this understanding that these systems are not perfect, that they are discriminating somehow, and it's just a matter of shooting fish in a barrel to find the discrimination, then you have an easier time spotting it. And you don't have to kind of think about "oh, well, if it doesn't work this way, and it works this way, then like maybe that's okay." So, you know, like, yes, systems that do, say, video analysis for hiring, they are probably most likely discriminating against people in protected categories. Like, because the video—like, the algorithms work on normative expectations about what people look like, or how people act. Say, if you have a tick, or you have Bell's palsy, or if you're blind, or, the way that your body works is not in line with the normative expectations of the algorithm, then the algorithm is going to say, "Oh, yeah, that does not look like a good job candidate." Period. That's how they work. There's no mystery to it. And it's, it's not a secret. I so if you go in with the frame, that these systems discriminate by default, then it's much easier to spot what's going wrong.

**Shalini Kantayya** 39:54

That's a great frame.

**Beth Coleman** 39:59

Discrimination by Design instead of what is it? Privacy by design, discrimination by design? I thought I wanted to see, can we connect two thoughts here? So Portland has one of the most rigorous no facial recognition in the streets. San Francisco, Somerville, Massachusetts, I'm like, "I used to live there!" So there's definitely some things that we can say fast and loose about the demographics in terms of education, income, proximity to either tech industry or big unit, the universities that feed the tech industry. How is that? How can these communities who are organized and activated enough to have pretty serious rules put in place about what can happen in public space... How does that help the women, the Black women living in the housing project who are sitting at the picnic table saying, "so we don't want this. We don't want to have to put our face and have a biometric scan to get into our building. Nobody's asked her permission. We don't want to live like this. We're not in jail." Like how do we get these gangs together?

**Shalini Kantayya** 41:13

Well, so there are two separate laws. I think the first ever law was introduced in New York, to put a ban on facial recognition in residential housing complexes, so that a landlord can't just come in and say "I'm putting in this biometric data. And I'm not telling you what we're doing with the data." So I think that there's there, but we need some universal protections on our biometric data. Much like Silkie points out, if the police wants to take your fingerprint or your DNA, well, sometimes they do it without us knowing, but they should actually get a warrant and and do that through the proper channels. And I think exactly what you're saying, because it's a wild, wild, wild west, not only do we have no protections, if our housing complex puts it up, we have no protections if our employer puts it up as a gateway, or a university. And so I think the underlying point is that we only

have as many protections as the most vulnerable among us. And right now, we have no protections. So I think that we just need to advocate to our legislators.

**Meredith Broussard** 42:29

And the FDA for algorithms is a great idea. Cathy O'Neil is the one that I listened to on the topic of FDA for algorithms. And it's just it's such a good idea. Regulators need, you know, regulators need so many more tools. Like, regulators are in a bind, because they're trying to keep us all safe, using tools that are not up to the task of evaluating and auditing modern AI systems. Right? So we really need more regulation. We need more education among regulators, we need better tools for seeing inside these systems. And so an FDA for algorithms is a really good step in that direction.

**Beth Coleman** 43:26

Yeah, so slowing down, perhaps the rollout, and also accountability in terms of an audit. So with Big Brother Watch, it made me think a little bit also of some of the attention that was brought to the the metro—the underground in London—that has both smart cards that you're swiping, so individual information about individuals, but then also smart ads that are that are targeted, and people were disrupted this because they said "this is absolutely an invasion of our privacy. This is an invasion of our civil rights." But that the the system had already been put in place without without any particular audit, like, when does that happen? I mean, when whenever we're like, "oh, we'll give you this new drug that we don't know what's gonna happen with it," or... and the thing is, is that..

**Shalini Kantayya** 44:28

The crazy thing about what you just said, is sometimes no one that we've elected knows it's been implemented and in motion. I think what Silkie's work shines a light on is that London has, you know, 6 million CCTVs. Meredith and I live in New York, where there are also millions of CCTVs. And if those got connected to facial recognition technology, (which we don't know actually if it's been used in New York, because it's often used in secret), how dangerous that can be. And I think for me, the big wake up call was when I was watching Joy testify in the US Congress, in Jim Jordan, who's a very conservative, Trump-supporting Republican sort of says, "Well, wait a minute. 100 and 17 million Americans are in a face database that police can access without a warrant. And there's no one elected that's overseeing this process?" And so that's what I began to see, like, "wow, the conservatives are as like, terrified as the liberals around how police are just picking up these technologies, deploying them at scales and sort of experimenting on people's rights without any oversight whatsoever." And so, I think that that is the danger of, and I think it's also important to say that I could only get real-time police use of facial recognition, I could only get those scenes in the UK, because there's some degree of transparency. And they allowed human rights observers, that's how different they are than the US. They allow human rights observers to observe their implementation of the technology. Versus in the States, it's used in secret. And for the first time, a US citizen—a Detroit man—was held for 30 hours, arrested in front of his his family and his

neighbors held in a cell for 30 hours, and never asked for his license. Right? Never asked for a single piece of ID because facial recognition had mis-identified them. And in spite of that, the Detroit police has doubled down and said they will continue to use this technology. And so it is just the sense of like we're teetering at the edge here, we actually need to slow down and put some some guardrails in place.

**Beth Coleman** 47:15

So I have a question about the relationship between kind of federal and municipal responsibility. So governance in relationship to private companies. Because, I mean, we're now in an antitrust moment with a couple of them. But I don't think it's around the issues that you guys are talking about. And then the other thing that I want to ask is, could you just open up a little bit more, some of what Amy Webb's comments were about China versus the US as the lead AI—not just developers—but people who are implementing things like, you know, on-the-street type of activities?

**Shalini Kantayya** 48:02

Yes, I mean, not not to speak for Amy Webb's great book, *The Big Nine*, which everyone should read. But I think that what Amy points out is that these companies got a head start on our data. So there will never be an AI company as big as these big nine, because they've had a decade-long headstart on the collection of our data. So it's very hard to facilitate competition. And I think what *Coded Bias* tries to do is show the different approaches to data protection. And so with China, we kind of show, you know, an authoritarian regime with unfettered access to our data. And instead of being like, "Oh my god, I'm so glad I don't live in China. That's a galaxy far, far away," to really say like, "wow, you know, this young woman is saying, how convenient that is, that sounds a lot like me. Like how many times have we been like, 'amazing, I pressed a button and there's a car outside for me!'" Yeah. And and we're sort of amazed by that technology, or how how often have we judge someone based on how many followers they have, or likes they've got on social media. And we haven't yet acknowledged this silent nudge that we're getting by algorithms in sort of all aspects of our of our lives. And so while China is a is a mirror, I think it's just that. I think it's a mirror and I actually think it's this close to us.

**Beth Coleman** 49:36

Meredith, are values of democracy going to be help us in moving forward on this?

**Meredith Broussard** 49:45

I certainly hope so. We need all the help we can get. And I like what Shalini points out that fear about facial recognition and horror about facial recognition is a bipartisan issue. That bodes well for being able to stop the insidious spread in the United States.

**Beth Coleman** 50:10

But with the pandemic, and the discussions, the design around contact tracing, and other ways of bringing technology: "Oh, there is an app for that. So you can see everyone who was at the party," etc, etc. Um, aren't we actually particularly in light of both the pandemic and also the the uprisings that have been going on through this pandemic—sorry for my language, but—isn't there already a law and order kind of rolling out of "let's throw more technology at this problem," of control?

**Meredith Broussard** 50:53

You know, what I think is that, I think we should stop and consider what is the right tool for the task. Sometimes the right tool for the task is a computer and sometimes it's not. So in the case of contact tracing, for example, people imagine that you're going to be able to get everybody in the world with the same app on their phone. And then the app is going to just magically keep track of where you are all the time. And then it's going to magically generate a list of who you've been in contact with. And on paper, yeah, it seems like a great idea. And in practice, it falls apart completely. Because the technology does not work as well as anybody imagines. And because there are logistical challenges, like when you walk out a house and you forget your phone, then yeah, you're in a place and you're exposed to people, but your phone is not tracking it. So we just, we can't expect computers to be magic. We can't expect them to do more than they actually can. So people need to get educated and feel empowered about what computers can do, and need to understand what computers can't do. And get comfortable with the idea that there are limits. So I think one of the things that the film does really well is it shows us how facial recognition really works. And it introduces us to some people who are advocating for there to be limits to what we expect computers to do in the world.

**Beth Coleman** 52:44

There's Alison.

**Alison Cooley** 52:50

Thank you all so much. This has been such a such an incredible and fantastic conversation and such a such a beautiful accompaniment to this, this fantastic film. So I wanted to thank you all for, for this this really powerful conversation.

**Meredith Broussard** 53:13

Thank you. Thank you. Such a pleasure.

**Alison Cooley** 53:19

And I do echo Beth's comment that I hope we can keep this conversation going and engage with people in various ways who have seen the film and conversation and social media is one opportunity that I think we have to to continue that conversation. So we please do invite people to, to respond and share, share questions and thoughts in that space. And to everyone out there who is watching this conversation. I wanted to thank you for attending and I hope you'll join us for

future events in the running with concepts series. I'd also like to close by acknowledging the support of some of our funders, the Canada Council for the Arts, the Ontario Arts Council and the University of Toronto Mississauga. And for people who are watching at home, our next event will be the elements of technology criticism workshop, which is the live workshop with Mike Pepi, taking place on October 19 at 7pm EST. Registration for that event is currently open and spaces are limited. So we hope you'll join us then and continue to follow along with the conference on our website and social media using the hashtag #RwCMediatic. And thanks once again to Beth, Shalini, and Meredith for this fantastic conversation.