

Funmilola Fadairo: [00:00] Thank you so much, Professor Cana Uluak Itchuaqiyag. This is me after playing the recording on your website to ensure that I pronounce it properly.

Cana Uluak Itchuaqiyag: [00:13] That's fine. You can just call me Cana.

Funmilola Fadairo: [00:15] OK. Thank you so much. So this is the second episode of my project with the DRC fellowship that I am in. My first question would be that most popular forms of AI have been critiqued for being harmful to the earth and people. As someone working on sustainability and AI, do you consider a widespread adoption of sustainable practices as possible? If so, what do you think to take to achieve that?

Cana Uluak Itchuaqiyag: [00:49] So I like to believe that a lot of things are possible. I think creativity comes from a belief in something to happen and then the hard work to think through how might it happen. Right now we are doing Zoom and it can seem like an innocuous technology, but right now it's also recording AI notes. Whether or not we have said we want it, to read the AI notes, is still like listening to us in case we change a setting, in case we do these things. And I have not read the terms of use. And regardless, if I had used the terms of use and I studied them and I studied them every time they changed and I had all the time in the world, because that takes a lot of time to read these extremely long, dense documents. And I also had a legal understanding to like be able to parse what is this really asking me. I do not have the option for my job to use many other different technologies. So I am compelled to accept.

[02:25] I can't accept partial terms. I have to accept all terms, right? When it comes to certain technologies. If I go to a website, for example, and I, you know, there's the cookies banner that says, you, are you willing to whatever you can do, like, you know, accept certain only necessary cookies and you can clear your cache on a browser, but still browsers like Google and elsewhere, especially the ones that are run by marketing firms like a Google, like those types of things that they deal with our data, that's what they want. Those are like, are likely keystroking us, you know, everything we put into especially if we've made it as our default browser, if we've installed various things that link it to other things happening to us when we're quote unquote offline, we are being surveilled. I happen to spend time in the world offline. And I think a lot of people are doing more of that. I think they are disengaging with technologies that trap us and spending more time in analog life. There are some people who aren't right, but I think there is a growing faction of people who are, you know, not like pioneer prepper types that are like, I want to live out in the country alone. Like just like average. Right?

[04:00] Who are or are spending time just like disengaging from one recent example is my spouse, his Apple watch, you know, is old and it died. Like it's just had it for years and years and years, right? And he was like, oh, maybe and he likes to work out and he likes to do these things and he doesn't wear it sleeping or like that, but he likes to track, you know, his workouts and he likes to, you know, um, stay notified or something, right. But then he was like, you know what? I'm just going to get just like a regular watch, have a watch like other watches. I'm just going to just do this regular watch and see what it's like. And he was like, I am really enjoying not having think something on my body telling me what I'm supposed to be thinking about telling me, you know, where I am, telling me that, oh, it seems like you're walking somewhere, would you like to meet me to record this? Right? Like all these things. He's like, that's actually been kind of nice.

And I agree, you know, but it's interesting because my habit is not to have just use my, it's not to use my phone when I'm, when I'm, when I'm home and, um, and I didn't realize how much I like that. that disconnect that I like this disconnection. I like this lack of availability and I like this need to think through. ideas, concerns, using my own mind, using my own store of memories, my own logic sequences without being able to look something up. being left with my thoughts and my logic and my values, right? That can guide what I do.

[06:25] And I'm not being babysat by technology, instead having my own self as a companion, having the wind as a companion, having the sound of the ocean as a companion, having just my, you know, the moment I'm in being the moment I'm in and nothing more and nothing less and just the presence. When we talk about sustainability and AI, I think we have to remember and do mindfulness. And I think we have to be thoughtful in how we engage in these technologies. Can I fight Bill Gates, you know, in an ideological battle and then just, or Elon Musk or whomever like these technocrats, right? Like who can I... And me as Cana Itchaquiyag, girl from Kotzebue, I wage a thing and totally disengage from this digital world in the economy that I live in? the like, you know, like I'm not independently wealthy. I'm so good at making a living off the land that I can live without an income, right?

[08:04] I do need to participate in a cash economy. And so can I do that with the skills that I've honed and worked for and completely disengage? No, I don't think that's where we're at anymore. But I do have the option to think about and make mindful versus mindless choice where I can. Some of the things I can choose not to participate in. There are apps that I don't have to put on my phone. There are types of things that I can choose not to engage in. Or if I do have to engage in like a direct AI product, I can think about what kind of querying I do. I can think about those choices. And I can be part of like a collection of people because I think that's always the important part, who are yearning to be more mindful and encouraging one another to be more mindful with how technology and tech interacts with our and leads our lives because it's not us technology, is technology very much impacting the way we live it doesn't have to to all the extents. And so that's how I think it could be sustainable. Ecologically, it is really disastrous. And I think even like, there's no doubt that, like even just, you know, with the internet, right? There's that we don't think through a question. Figure out something, we will just Google it, right? We will just look it up and let's let the collective voice of like the algorithm rate that's been changed by billions of uses, trillions of uses, give us the answer. And then we decide if that answer is true or not, or if it's what we wanted to know. And so I think if we pause and do some of our own thinking, you know, and, you know, get a watch that ticks, moves, know, and turn off our phones and meet with our friends in person if we can and invest in our analog community, our analog selves, are in quiet time with just our thoughts or with a book or with a piece of paper or just with the sound of the birds and have quiet time in our lives. I think that's the way to make it sustainable on an individual level. Unfortunately, we're gonna be thirsty. We're gonna be a thirsty species and so are other species with us, right? We're going to be thirsty. We are using, we are being gluttonous right now and very, very selfish in how we are using the earth's resources.

Funmilola Fadairo: [11:46] Indigenous communities are often caught in between ensuring that their knowledge production is visible in technological spaces and safeguarding their work from extractive practices designed to claim ownership or even distort their perspectives. With your work as the Director for Sustainable Engagement in the Arctic, how do you sort of like address this kind of tension?

Cana Uluak Itchuaqiyag: [12:13] It is a hard, it's a weird hard tension actually. So this, give an example. So in the work that I do, I, I care very much about supporting tribal sovereignty. So I work with indigenous communities in the Arctic and the United States and Canada, Greenland, Sotmi, which is like European Arctic. I care very much about what these communities and community partners want sometimes what they want or interested or they're willing to participate in is attention with my own individual like perspective. So when it comes to AI, right, that's one of those ones. Now, obviously, I engage with AI, it's like, you know, just part of a lot of normal life. And I also have the incredible privilege of like a huge amount of education that continues to this day. Like I'm basically constantly in school, right? Because I work at a school and I'm always learning and I have my colleagues and friends and my networks are all like about learning all the time and challenging ourselves through academic learning. There's so many different types of learning.

[13:52] Even, you know, experiential learning, various types of learning. And writing is a huge point of anxiety for people who don't have that privilege. Writing in English, when English isn't your first language. Writing in English, even when English is your first language. Writing in other languages, like just writing in general, you know, is one of those places. And a lot of my, and also reading. Right, and reading comprehension and especially reading technical things, which is, know, I'm a technical communicator. And so like reading, you know, policy documents or various things and interpreting them and like trying to communicate about like what is working and what isn't working about that and what people's concerns are. I have found that oftentimes, Tribal partners assume that they need to meet me where I'm at, where I literally have a PhD and I work at a university and I write things that people publish, right? And they're trying to communicate to me in this way that they, yeah, it's like they're trying to like reach up and they feel there's a lot of tension there because it's not exactly within their training to write and read with technical precision.

[15:45] And... So that's where AI steps in, right? And I see a lot of emails from community partners or things that just have the AI flavor, you know? And they're really clear. Like, I really can see what they're trying to talk about. And maybe the AI has helped them think through a series of complex documents or just they put their messy thoughts into it and then let them messy thoughts get organized and re-communicated. I do that when I have like a I have to write certain emails like let's say to my boss or something like that like yeah I want to be really careful on how I communicate things and sometimes I use AI to help me with the same processes of like putting down my messy thoughts and having it come out semi-polished right but not maybe not exactly right but every time I do that, I'm, you know, training, um, either an open model, like a model that goes into a thing, or if I'm like a tech whiz and I have my own little Python space, then maybe it's just my own model. Right.

[17:01] But, um, all I have to say is I don't begrudge communities for their use of these technologies, I get really frustrated when people want to deny access or like out of idealism, technological idealism, which I can afford to have. I can afford to have technological idealism and decide I am not going to write with AI and I'm still going to be taken very seriously about what I write. But a community partner trying to interact in the same spaces writing from a non-trained writing way, like a non-technical writing way, might not have the same advantages or reception of their ideas, their concerns, their needs, the way that they would communicate. It's just, you know, and I'm not saying just because you're a community partner, you can't communicate as well as I can, but I have specific training in this. I have the privilege of the choice. Right? And the perceived, like I can believe easily that I will be taken seriously, potential community partners that I work with might not believe that they'll be taken as seriously, right?

[18:29] If they can't communicate like I can communicate from my trained mind, my trained experience. I'm not discounting the training because it's a lot, but it exists. And even with that training, like I said, I still will engage with the AI to help me sort my messy thoughts, even though I was trained to sort my messy thoughts and re-communicate them in a clear way. So, when it comes to communities and like working at the center and respecting their sovereignty to engage in these technologies, the only way can really do that is by number one, trying to be a human with people and have them communicate and engage with me and work with me as like research partners from I need to identify their positions of strength and so that they can engage in a research process or a communication process or whatever it is from their position of strength. And so helping identify that is where one point of importance.

[19:53] But the other part is by also letting them be aware of some of the potential hazards of putting like sensitive information within data collecting software such as AI, such as even just using, you know, seemingly innocuous, you know, technologies like Grammarly or Microsoft or any of those things, like just letting them be aware. But the problem is, is I don't want to stop people. from also participating in the modern world. So it's like this really hard tension. And so my job is to answer questions, offer conversation about it, but also just to get out of people's way. Because the problem is a lot of people with this technological idealism, They are oftentimes thinking from a position of privilege, not always, but they're thinking from a huge position of privilege such as myself or my colleagues who might theorize about AI, who might theorize about data sovereignty, who might theorize. We sit in this very safe place with me, access to graduate students that work for me, faculty who want to work with me. So lots of help, right? a job that allows me to self-direct what I do in my day. Privilege, so much privilege. Whereas my community partners have oftentimes a limited amount of people that they can work with. There's a budgetary, like a lot of budgetary issues. There's capacity and oftentimes they're just like in academia, it can feel like, my gosh, I have to do so many things. I'm on this grad committee and oh, I'm on this service committee and oh, I have to publish and research. Oh, oh, oh.

[22:00] But it's an adventure that we actually, it's like a choose your own adventure. So we've actually created the reality that we live in. Whereas community partners are like, yeah, I work at this organization. We're literally trying to save lives. and emergencies happen and we are responding to them. Like I'm working with a community partner that is literally trying to do some

like preparation for storms. Like I don't know if you saw the storms that happened in Western Alaska where like towns were floating away into the ocean. So I'm working with a community partner whose community is like threatened by those very storms and are likely gonna be flooded again in October. Like what can we do to keep people as safe as possible? So they're trying to do that at the same time as other things that are existing right now. And so they're thinking about the future and responding to the present and they have like five hats on their head at work, but then they're active in their community. So they're also like helping with their children, their grandchildren, they're helping with their community, you know, they're trying to do maintenance on their own home and prepare their own home for a storm. They're also, you know, they're, they're natives. So they're like living a subsistence lifestyle too. And so they're like trying to put away fish and then they're trying to do, you know I mean? They're trying to do all these things at once. And, so am I going to begrudge them or be like, you know, you really shouldn't be using AI to help you read all of these things that you've got to read and synthesize all this information that you've got to like, you've got to look over and, and respond to or kind of make a decision with. You know, people are just trying to get by yes, it does create labor creep, right? It does create like an expectation of what somebody can do within their workday. Right?

[24:14] It does create misinformation proliferating within a system because a computer model that is trained on a very different type of society is interpreting a very nuanced cultural experience and even overriding that. So, there might be future loss of like cultural knowledge because the AI has interpreted it with a dominant, let's say Inuit, so like we're all Inuit, but let's say there's more training on Canadian models, right? And so it's taking Alaskan perspectives and training it through our cousins perspectives versus our own perspectives. And you can see that with how the treatment of ulu's, so it's a special knife that we have. And Canadians and Greenlandic people use an ulu that has like a different kind of handle than ours. Our handles are like right on this on the blade. Theirs is kind of above with a little like a t-bar kind of thing their hands don't touch the blade, but ours are hands touch the blade. So you can even see it in how I've noticed it in our own cultural institutions, representations of ulu's or mukluks or coming switches are the boots, our Canadian versions in our in like outgoing pump like, like graphical things is like another cultures version of what we do. So that's happening just with like using clip art, right? But like, now let's put it into like a data system where it is generating and responding. It's responding to inputs, generating outputs, right? And it's like doing these things and it is training humans to think and make decisions and is providing information to humans to think and make decisions. Sometimes it's providing information and training for AI agents to make decisions, right? So.

[26:23] That's a whole other, let's not even get to that step. Just imagine just a human using a querying system, right? A generative AI system, putting in, let's say, some spreadsheets of information that they gathered about hunting season, right? And what people are doing and they are thinking through some decisions related to hunting in the future. That generative AI system, is really interesting it will provide some outputs that are going to seem really, yeah, right on smart. Wow. I hadn't even thought about that. You put some great connections to there that would have taken me days and days of work. And I literally got it done within minutes. Minutes. That's an insane like return on investment, right? And imagine you're wearing five hats. You're

behind on everything, your community's preparing for a storm, and you're trying to make this what you think is a slightly, like it's an innocuous decision. But then that AI is also trained in thinking as if you are in a different tribal or community or ecological context, right?

[27:40] It's putting those perspectives or is putting in the perspective that hunting is violence, reason why I say that it is doing that is because I recently was using the AI to, was making a cold case mystery game for, I just ran a two week workshop up with 11 tribes and we're teaching digital data archiving. And so I, you know, I don't have the budget or the time to hire an art director to make like documents and photographs, you know what mean? And I don't have a budget to have models pose or pretend they're doing this thing. I'm like, I'm gonna, I'm gonna play with generative AI because I haven't really played with it for like image generation before. And so I put in these pictures of hunting, butchering animals, butchering seals in particular. And there's people in these pictures, but I don't want these people in the product, right? I want to change the faces of people in the image. So I put this picture of a hunting thing say, this is a hunting picture. They have harvested blah, blah, blah.

[28:58] Please take, change the picture, faces of the pictures to these characters, right? That I've generated like total fake humans, right? It would not do it. It would say, this image contains violence. There is no violence. There is like a lady holding a baby while somebody is butchering a seal, right? But it is coding that, it is trained that blood and guts is violence, right? There's a paradigm of blood and guts is violence, just like we were talking about with the fish thing earlier, and what is gruesome, right? And what is sustenance. And so for an Inupiaq, like myself, looking at that, that's food, that's beautiful, that's cooperation, that is like, that's a perpetuation of our culture, you know? It's like, it is like the goal. Like I'm seeing it as this like beautiful, incredible thing but the AI sees violence and will not produce an output for me with this. So that is in the system. It exists. So now let's go back to our hunting decision-making thing. And I'm putting hunting information about that, maybe even images, maybe whatever it is, help this person make a decision about something, right? Or make a plan or do whatever, any kind of decisions. In the background, there is that perception that hunting is a violent act and there is a negative connotation related to that. But in the culture of the person doing this decision making, that is not a truth. But it gets incorporated even in a nuanced level into that and then recorded into the decision making recorded into the perpetuation of that culture, recorded in to that space. And so that's the risk, right? Is that these societal status quo products trained on non-Indigenous cultural norms where we have paid to wash our hands from the blood of the animal. We have paid to take the face off of the animal, right? And rendering this piece of meat bodiless, lifeless, where we don't have to contend with the quote unquote violence of a life lost for sustenance for another organism. And so those things have been encoded by, know, blood is bad, right? Blood on my pants is bad, it's scary.

[32:19] It makes me look like I'm something, right? People would call it savage, right? I would call it, like, that's successful. That's beautiful. That is me just like doing like, in you back things, you know, and I'm participating in my culture and my own cultures, like, perpetuation, I am doing culture work, I am doing humanity work, I am doing Like I am a living UNESCO heritage site in that moment with that blood. Yeah. But that picture is violent. That's the risk.

Funmilola Fadairo: [33:09] Thank you. Thank you. Thank you so much. I could, I could relate to a lot of the things you're talking about because I'm Nigerian and I lived in Nigeria for like many years, like the 20 years, like years of my life. And sometimes I'm just trying to like use AI for like very Nigerian themes, but I keep getting like US Western perspectives and they're like, that is not what it means in Nigeria. That's not what it means to me. That's not what it means within like my family, my community. So the entire like meaning making process or like interpretive like lens towards it is just very broken, it is distorted. And it's just something that genuinely doesn't take into account of like the nuance and the actual like lived experience of the people. And I think one of the things that Indigenous communities have is sort of this very like nothing is the same. But AI wants everything to be the same. Yes. The way you're talking about the differences between like Alaska and Canada, whereas in everybody's eyes is like the same thing. But within like from your own community like, oh. Not really.

Cana Uluak Itchuaqiyag: [34:22] Not really at all. We're different. It's like, it's the difference between like same, same, like everyone sees us as same, same. Oh, you're Inuit. Oh, great. You know? like in my language, it's not Inuit. It's Inuit. We're different. You know, in my dad's language, there's no such, there's no word that's Inuit. It's, he's a Yupik. So it's like a very, like it doesn't, you know, but the very identity that the world has tagged us with as a PC term, right? We're not allowed to say Eskimo anymore. And so we have to say Inuit, but from my dad's language, it doesn't mean anything at all. In my own language, means, it sounds similar to a word that we have, which is Inuit, which is for us, right? But because there's a higher instance of models being trained on Canadian things and just society being trained on Canadian Inuit, like worldview. that displaces ours in not only AI systems, just also like, like, just like cultural, like basic cultural understanding that existed before that, right? And so, like, yeah, it could replace like, who we think we are, especially in this time where we are literally I use the joke that I'm a living UNESCO heritage site, but I am.

Funmilola Fadairo: [35:54] You are.

Cana Uluak Itchuaqiyag: [35:55] I'm almost 50 years old. And so I understand a lot of my language, but I don't speak it at all. You know, I can like piece together like a chunky sentence maybe, but like it takes me all day. But I can understand concept by concept and I can go to Canada and I can understand them speaking almost like how I would understand my own people speaking concept by concept. Cause I know keywords and we use similar language. When I was in Greenland, I hearing people speak Greenlandic, you know, and there, and I can understand concept by concept that they're talking about this type of fish, or they're talking about a berry, they're said, excuse me, I farted, like there's things like that, like I can understand in the same way I understand my own language. So that's me having, but I grew up like, totally participating in subsistence, my family's like pretty traditional in that way. Right. And I had the luxury of growing up on my own homelands and experiencing what it's like to be surrounded by other Inupiate, like just surrounded by Native people were like white folks and others were like different. They were the different ones. They were outnumbered and society. Although it was living in a Western capitalist thing, right? was the 80s and 90s. so we still were, still a very Inupiaq community. How we thought about the world was very Inupiaq.

[37:29] Now fast forward, I have, you know, kids in my 20s, in their 20s right now, and they grew up a lot of their lives in Idaho where we were living. And they still had an Inupiaq mom, right? Who was from a village and whatever. They went back to the village every summer. I'm currently in Alaska in my child's house, my kids live back in Alaska now, still they, you know, so they had a lot of connection to their culture. They didn't have, they don't have the same language understanding, because I just heard, I grew up hearing it spoken around me. My mom and her sisters, my mom and her sisters just like gossiped and in you back, you know, and laughed and you know, and people like my mom and her friends, they spoke in their language and you know, and I could pick up on little bits of it, you know, and because of course I wanted to hear what was going on, but I can't respond, right? But my kids, they don't have that. They only know like, it shocks me how little they know of our language, but they still hold it, right? They still use it to the best of their ability and I'm proud of that. But I can like critically look at what the AI outputted for like this game I made, for example, was meant to be in place and be like, that's not right. But I don't think my children could.

[38:44] They still they have an Inupiaq mom from the village. They've got my mom, my their grandmother who's still alive, fluent speaker, you know, they've got aunts and uncles that live off the land like hardcore hunter types, know, like rural native. They have that as like people who are really influential and part of their lives a lot and they you know, and they get to experience that stuff. But I do not think they would have the discernment to critically analyze the AI. So paired with that, right, the challenge that creates risk.

Funmilola Fadairo: [39:34] What, where do we then place certain levels of like cultural fluency? Would you say it's sort of like a practice that should be sustainable? Would you say that cultural fluency should be something that is like some form of resistance within indigenous communities? What do we do with that level of cultural fluency that we need, sort of need somehow like from like an intergenerational like perspective? Do we find ways to ensure that we can get some of it? Or what do we do? I think that's where maybe like your archival work comes into place or something, but I'm just curious.

Cana Uluak Itchuaqiyag: [40:16] I mean, I'm going to get real practical here, but like these AI companies, like I've been approached by large AI companies because I do language revitalization work to try to get my community partners to partner with them to help train, to like, they will give us a coder, right? To like encode our language. They will like have people work on our language and help us create, know, the pa... I'll just... The package is necessary. The data package is necessary to be able to use like a Google Translate, right? For our language and where it's dynamic, right? We can do sentences versus what we have right now is relatively static, which is like, here's a word and then you hear you have to kind of you can just do a word but you can't put it in context with other words right very easily and so people they've approached me and I had to pass that on to our community partner they elected against working with this group it's it's a yeah and so but here's the thing and I I applaud there. I did not want to bring it to them because I was afraid they were going to choose to do that. But then also like, it be an opportunity? We have no like, like my mom, she's 80 years old. She's the last generation of fluent speakers, we have just hundreds of fluent speakers left of our language and our language is critically endangered. Might as well ask me to like translate Spanish or French.

You know what mean? Like, I literally know more Spanish. I can speak better in Spanish. So what I think about is technologies and how to do this and think about cultural heritage.

[42:15] It's not like the reason why these large AI companies are approaching me is because they're really wanting to help. It's because that data, that information is worth money. Right? It is valuable and hard to get because we are low resource to low document like low, we're language of low documentation. So, it's very hard to train a large language model specifically on that. It's another reason why like DNA companies are like they target indigenous communities because they have a hard time like understanding the specificity, like specifications of like Indigenous DNA stuff, right? We have, and so you just get these broad categories versus like for these larger, like Swedish, that you probably find county, you know what mean? Like you could find like real specific information they're trying to understand the globe in this bigger way, but it's because they make money off of it. It's not because of altruism or like, we're just curious, right?

[43:23] But that means there's an opportunity. They should be funding our cultural revitalization. They should be like not investing money in like, we're going to do AI stuff. They, if they want to like get our information, they should be, they should be, um, funding analog language camps, language nest schools should be like, do you know what mean? They should be giving back to these communities who have distinct cultural practices to ensure those distinct cultural practices stay in existence and stay distinct versus flattening out to similar cultural practices of all these other places that kind of do the same thing but do it differently.

[44:21] But oh, we don't know that anymore because we've been smoothed out by the algorithm and they have the money to do it. Like just like a pinch of that. They can provide so much support for things that are hard to fund, I know, like pay me to learn my language, I mean, I don't need to be paid, but I still need a wage. I want to go to an immersive cultural camp where I go, and I live at camp for a year, I could bring my family and our needs are taken care of so I could still pay my mortgage, I could still do this stuff and I'm in community with people and we are living at a place and eating and but we're doing subsistence activities, cultural native stuff, know, like living and we're speaking in our language and give me one year of that you know, taught by the elders that exist, right? They can imagine if they invested in that and they had like a hundred people in a region go through that. And then those people now are like have a stronger knowledge bearing and they can teach others, right? And then they do that camp again, you know? And they like, and we have like, it wouldn't cost a huge amount of money in perspective, but for a community, it's a huge amount of money. For people like me, you've to replace \$100,000 a year for me to be able to actually do that, right? And then I want my family to be with me because it should be intergenerational learning if we really want it to be in our homes and the language we speak. So it's beyond the scale of what, you know, an NSF grant or a National Endowment for the Humanities grant can provide, but it is certainly within the scale that these billionaires and trillionaires can provide.

Funmilola Fadairo: [46:16] Thank you so much. That's such a great note to end on. I've learned so much from hearing you speak and I've learned so much. Thank you. We don't hear enough indigenous perspectives about like technology and that's one of the reasons I genuinely wanted to interview you.

Cana Uluak Itchuaqiyag: See you. Nice to meet you Funmi.

Funmilola Fadairo: Nice to meet you too. Bye.