**May 12, 2020 Meeting - Seattle Community Technology Advisory Board**

Topics covered included:

**This meeting was held:** May 12, 2020; 6:00-8:00 p.m., via Skype/Lync

**Attending:  (All via Skype)**

**Board Members:** Torgie Madison, Rene Peters, Mark DeLoura, Steven Maheshwary, John Krull, Brandon Lindsey

**Public:** Martha Hobson, Tyrone Grandison, Steven V., Elsa-Batres-Boni, Seamus Brugh, Nate Yohannes, Dorene Cornwell, Tyler Woebkenberg, Alex, Meghan Sebold, Diana Canzoneri, Mark Cundy, Valerie Craig, Dean McBee, Bea, Kate Kruller, Aleesha, Harte Daniels, plus three on phones

**Staff:** Alice Lawson, David Keyes, Delia Burke, Vicki Yuki , Brenda Tate, Jonathan Porat, Vinh Tang, Cass Magnuski

**32 In Attendance**

**Torgie Madison:**   I think we can get started. Welcome, everyone. Thank you for taking time out of your day to join us. We have about 30 in here right now. Like last time, as we do introductions, those who have a mike or Skype up, according to the participant list. That's down at the bottom. Looks like a couple of user profiles, side by side. Click that and you can see the participants. Let's do introductions in order on that list, so starting with Elsa and ending with Tyrone. And afterwards, I will call out those who have dialed in with a phone number and capture their information, as well. Just a quick note that the meeting is being recorded for the minutes, which will be prepared by Cass Magnuski. But the audio recording isn't being made publicly available. I think that's about it, so if we can start with introductions, starting with Elsa? Say your name and the organization you represent.

**INTRODUCTIONS**

**Torgie Madison:**   All right, I think that does it.  Onto the agenda. We're going to take a quick vote to approve the agenda for this month and the meeting minutes from last month. Can I get a motion to approve the May agenda?

**Steven Maheswary:**  I move to approve the May agenda.

**Torgie Madison:**   Thank you. Do we have a second?

**John Krull:**   This is John Krull. I second it.  And I'll introduce myself, a CTAB member.

**Torgie Madison:**   I think we tried to get an introduction from you, but you were listed as a presenter on the attendee list. Thank you for joining.  All right, so we have a motion and a second. All those in favor of approving the May agenda, please say, "Aye."  Any nays or abstentions? With no nays or abstentions, the motion passes. Can I get another motion to approve the April meeting minutes?

**Rene Peters:**   This is Rene. I move to approve the April meeting minutes.

**Torgie Madison:**   Is there a second?

**Brandon Lindsey:**   Second.

**Torgie Madison:**   All those in favor of approving the April meeting minutes, please say, "Aye."  Any nays or abstentions?  Motion passes. This concludes our boilerplate business. I will hand this right off to Rene Peters. He's been working really hard to interview the presenter, Nate Yohannes. Take it away.

**AI DISCUSSION WITH NATE YOHANNES**

**Rene Peters:**   Nate, how do you feel about video today?

**Nate Yohannes:**  I feel great. Can people see us?

**Torgie Madison:**   We can!

**Rene Peters:**   I want to thank Nate Yohannes. He's a really great guy, a friend and a mentor to me within Microsoft. But he has a really interesting background as a human rights lawyer, a member of Obama's Innovation Committee, as part of the Obama administration. And now in commercial technology as the director of product at Microsoft of AI, Artificial Intelligence, AR and VR. So, I will let Nate give us a short introduction about himself. And if you could just quickly walk us through your background? I know we could spend all of our time just talking about your various thoughts along the way, but tell us a little bit about how you ended up in Seattle and at Microsoft, and how does the path that you've taken affect your perspective on how it applies to technology.

**Nate Yohannes:**  Thank you for that introduction. Before we kick off this discussion, I want to make sure that -- I hope everyone on this call is staying safe, and their families are staying safe, as well. We're certainly going through a very, very unusual pandemic in our world's history, and it's most important that we put our health before everything else. I want to express my deepest gratitude to the City of Seattle and Washington for their commitment to Governor Inslee's policy. I do hear an echo. If people could put their microphones on mute, that would be fantastic. Much, much better.

**Torgie Madison:**   We've done some judicial muting there. I hope that that clears it up.

**Nate Yohannes:** Well, sometimes, you've got to use martial law. As Rene indicated, I am an attorney. I do human rights law. I practice in New York. And what I learned in law school (unintelligible).... Having this unique background as a human rights lawyer, my families were refugees from a country called Eritrea, and there's a pretty substantial Eritrean population here in Seattle or the Seattle area. What I knew was simply to give back. I knew that the people who brought us to the United States of America were a church and a group of lawyers who were fighting for our process because of my father being a revolutionary, fighting for freedom and democracy in Eritrea. He stepped on a landmine in 1978. And so, my platform has always been around this notion of contributing and giving back. A disappointment in my journey was that NGO wasn't being financed, as I indicated earlier. So, even a Wall Street lawyer that had a financial crisis in Washington, DC, because those were the firms who were hiring the best and brightest lawyers. So, spending some time as a security regulatory attorney in Washington, DC during the financial crisis, learning all of the regulations and having an influence to represent the under-represented in that position opened up my eyes in regard to how to incur change from many different angles. And that eventually brought me into a Presidential appointment where I am forever both humbled and proud to have been appointed by President Obama in 2014 to serve in his administration, walking several different paths. First, driving job creation in the United States in that administration as a senior advisor to a chief advancement and innovation officer, who was injecting finance dollars into small businesses to rejuvenate the economy. And with Covid, it seems like I'm rewatching a movie, but at a much larger scale, with all of the strategies that help us through this very complex time. And then, also, blossoming to certain roles where we had interactivity not as a luxury, but (unintelligible). Towards the end of this stretch, as you can imagine, folks are beginning to look for their next career. And that leaves a lot of opportunity for folks who want to keep their jobs until they turn out the lights. So, I kept my job until the very end.

As in every great democracy, the 22nd Amendment is pretty accurate, and we got turned out, and I was gainfully unemployed for about a month. And after that administration, I joined Microsoft. I first started off in Silicon Valley in the San Francisco area, driving business development and strategy and partnership. And that blossomed me to my current worldwide view.  I was certainly welcomed to the Seattle community and Washington State. I've been here for about eight months now working at Microsoft in AI engineering, building up technology, working with what I would consider the best and brightest scientists in the world, on how we're going to use AI to advance community ingenuity to democratize technology; certainly to use AI to assist humans. I'm certainly not one to say that AI will replace humans. So, that's my journey in a flash. I have a great family with a great moral compass. And to the mothers on this call, happy Mothers Day.

**Rene Peters:**  Thank you so much for that intro. Awesome. I think that we stand to learn a lot from you, so let's dive right in. Some pretty simple questions. Generaly speaking, where is the current state of AI? Where are peoples' expectations for artificial intelligence and are they aligned with how it's being used right now?

**Nate Yohannes:** I would say that where we are in the technology journey of AI. I tend to think there's a lot more "A" than AI out there. At times there will be this undertone of a hype around where we are in the journey. We're early. Actually, AI has been around for much longer than -- several years, maybe 30 or 40 years when we have been looking at machine learning and data models for events computing. Now, what makes this time to be a very pivotal time in the history of AI is the cloud, and the ability to share very complex computer systems that at one time an individual or company would have to hold on premise servers that are very cumbersome and expensive and hard to maintain.The cloud is the largest shareable computer in the world. And here we have this mass moment of data that is pouring out of every pore of every electronic, as well as this computing which has opened up the door to this wave of what I'll call advanced AI, and that's machine learning. But I also want to set expectations that we are certainly not in the world of autonomous AI. AI is very manual right now. Data scientists are, I think, right now the most difficult job because of the lack of data scientists out there working with a data science team. Seeing how manual it is to extract this data in current AI models. I am unbelievably impressed that AI has made some massive advancement in choosing some breakthroughs in human parity. But really, the AI that we want to see in society, we still have some ways to go. But, certainly we are in a big pivotal time in technology history as well as human history when we think about AI assisting us in these complex waters.

**Rene Peters:**   One of the things you've had to think about in in your position are the implications of artificial intelligence to society. Could you dig in and tell us a little bit about your work with Microsoft, and Microsoft's overall involvement with pushing the agenda?

**Nate Yohannes:** I want to make sure that I'm pretty deliberate, and let you know that I am not a lawyer for Microsoft. I am now part of our legal team, and I do want to talk on what I do know. I just want to be clear about that. I want to give some caveats. A couple of things: First, the company, as a whole, our purpose around our respective data and making sure that our customers and end users feel confident that we want to provide you with the most amount of comfort that we respect your data and privacy. Microsoft is a company whose business models is a model for data. Unlike some other companies that their business model is AB plus is often advertisements and there's a big model in that your commerce is your data. I mean, I use Google Office every day of the week, and I know for a fact that that free service they're providing me, I'm paying with my data and they're monetizing that and selling me back (unintelligible).... So, Microsoft is a business model. It's very, very different. We are a self-advertising company. We monetize off the cloud. But the amount of business from ads is very, very small. there are pros and cons to that, because if it weren't for AI, you'd need a tremendous amount of data to train models. We want to make sure that there's a fine balance between respecting the privacy of individuals, but also know that in order to produce a better end product for you if you're a customer of our AI, it does require some data to train our model. So, we are very, very cautious and deliberate on how we engage our customers, because your privacy is the most important, in my humble opinion. At Microsoft, we do have a unique team that sits within engineering, called the Ethics and Society Team. Within this group--it's a large group, you know -- a number of individuals who are basically working with us as we work through and build products that are going to address conference problems, and their job is to make sure that we are constantly thinking about the greater good to society that we don't drive into unintended risks. Or unintended consequences. I always tell folks that where Mark Zuckerberg and his friends were creating Facebook, they didn't expect that a decade-plus later, this technology would more or less crumble this ability in our democracy that is the 2016 election. So, I certainly don't want that in ten years from now that we didn't do as many of the parameters and mitigation efforts that we are driving technology to advance our society. I'm happy to chime in as a person of color the things we are able to alleviate by bringing in people with disparate background. My background is completely different than my peers. That was a big plus in terms of having me help drive strategy and planning, because I look at things not necessarily as a scientist, because I am not a scientist. I look at things through the world of law, policy, business, and experience as a child with refugees. Someone who had the faith in the American dream.  So, it's a mix of certainly gratitude, but a company that has it's fingers on the pulse of its moral compass.

**Rene Peters:**   Thanks for that. A little bit of a pivot, which is probably a discussion that you're already having within Microsoft and with your teams. As you know, coronavirus is affecting everything that we do--how we work, how we live our day to day lives. How do we use AI to address the gaps that currently exist, and how is it already being done?

**Nate Yohannes:** That's probably the most discussed,. Probably by everybody on this call has been reading one article or another. Just yesterday, there was a bill passed on the Senate floor around privacy and data and Covid-19 efforts abusing AI, to use it to mitigate. There are several efforts at that scale that we're seeing across the trend. First, it's around mobile tracking data, which I believe was very successful in Korea and China. And the reason I say, "I believe," is I can't say it with certainty, because a lot of the data that we're seeing out of these countries aren't consistent with what they've indicated. So, I don't want to question anyone's veracity, but at the same time, I don't want to speak to something that we have a problem with certainty. We are seeing efforts around how to leverage mobile data tracing to tackle Covid. Because I think, of course, we want to find a vaccine as soon as possible, but we're focusing on containment. Or, as Governor Inslee said, put it in a box where we can figure out how to best address it. (Unintelliglbe)...mapping data and mobile data, trying to help contain people who are Covid-positive. In China, they are using facial recognition to balance efforts to do the same thing, which is relatively interesting, because, with facial recognition biometrics, a lot of us are required to wear masks, so we're even looking at how can we invest AI to look at certain features, forehead and eyebrows, and really not being able to have full biometrics of facial figures. I think that the most prevalent thing that we're noticing is around mobile tracing and tracking and the efforts of MIT, as well as some other institutions, How do we trace and how do we campaign Covid. One of the things that most excites me about AI has been the extraction of mass loads of documentation. So, you have millions of patients going to hospitals, documenting. And looking at the knowledge graphing in terms of symptoms, in terms of gender, in terms of age, in terms of health conditions. But figuring out what are the clusters and patterns with the Covid patients in a way that we can address them can providing more signal. Because one of the biggest challenges we see with Covid, I'm not quite sure what's accurate. I have asthma, and for the longest time--I'm not going to say the longest time, because we've only been locked down for a month or two, not forever--I was told by a physician, a neurosurgeon, from my friends, my parents, that people with asthma all should stay at home. We're at a higher risk of death. But then, I'm reading articles that indicate that that's not the case at all. So, trying to find and use AI to track these clusters of preexisting conditions, of regions where it's spreading, but really that knowledge is really what I am looking at short term. And of course, an aspiration of AI is to find a vaccine. But I have not been fully immersed in those discussions. That's far out of my pay grade. But, certainly, leveraging AI around tracing as well as knowledge extraction of big data.

**Rene Peters:**   And, one of the things that you touched on in your answer was this rush, this impetus, to utilize solutions and new ways, whether it's a facial recognition algorithm that is now using only a portion of the face, wouldn't we already know that there are legal concerns, privacy concerns, with that facial recognition algorithm. So, can you talk a little bit about this balance between rushing to solve new problems and by treading on these new possibly problematic areas of how we use this data?

**Nate Yohannes:** Yes. I have been watching closely. The past two months have seen an escalation, and I hope we make the right decision, the sound decision, and are not pressured by general elections coming up, with politicians making headlines because of the fact that folks are coming up for a performance review for these general elections, and so looking at effort -- you know, the past couple of months there has been some massive legislation that has been proposed and some have been passed. I commend the State of Washington for being really the first state to take a stance on facial recognition, and how we are going to drive the policies surrounding that. We certainly don't want a race to the bottom. Spending time in the public sector, and spending time in the private sector, the whole notion of bi-partisan working together to achieve our true north star. The State of Washington provides developers and businesses who are using AI with a stronger playbook, the ability to see the goalposts, and have an understanding of where we can test. There is still massive deterrence that we're seeing, the algorithmic (unintelligible)...and we want to make sure we close those gaps. Because at the end of the day, our end customers are the world. And when I read about airports and airlines using facial recognition to replace the boarding pass, JFK in New York--airports are the most diverse places that we could ever see. So, when you have a massive subgroup of people being pulled aside because of the fact that they're -- and recognizing the face, trying to check into their flight -- you see a bunch of caucasian males --- those types of real life scenarios certainly cause some animosity and drive folks to correct the system. And so, what we're seeing around the notion that by driving more clarity and working with governments to adhere to the policies, but also that this technology is used to advance because of the fact that a lot of our ecosystem are people that come from unique backgrounds from a gender and race standpoint, and being one of the few people of color in the whole industry--forget about Microsoft--across the whole industry, I think that it's always for me to --you know, there's a phrase: are you at the table or on the menu--and try to be part of the voice of reason. I'm certainly not the voice of everyone with a darker skin-tone--but certainly have a unique experience compared to a lot of my colleagues in the industry. On the tracing side of it for Covid -- again, these are my own personal opinions -- but in terms of seeing the ways that governments are going to leverage technology to tackle, as I say, a very complex problem, it's going to require us to work with governments, but also make sure that some of the things that we cash in in terms of our privacy for our safety, to what extent--how long is that our new norm? Is it really worth it? And we're going to see in the next few months as things blossom out, where are people willing to provide some of the privacy for their own health and public safety? I predict over the next two to three months as we get into a national election--and I hope that this isn't a political thing, I hope that we look at this from all sides of the aisle because this disease hasn't been taking down people from certain political parties, it's taking down human beings.

**Rene Peters:**   That's awesome perspective. And speaking about this, and talking about Washington, you know, Washington and Seattle are in a really interesting position. We had the first cases, domestic cases of Covid. But we're also really in an interesting position as far as who is present: these concentrations of the Microsofts and the Amazons, what would you say the role of Seattle and Washington is? Or what can the role of Seattle and Washington be, as sort of this ground zero?

**Nate Yohannes:** Yes. We're having this discussion because this region--it was unfortunate, but good that we had the first cases because who knows what Covid could have been in. But, it's unfortunate that this situation happened? For anyone on this call who lost family members and friends, my deepest condolences. This is one of the most interesting cities and most interesting areas in the United States in the greatest way possible because of the concentration of talent but also the two largest cloud providers on this planet are based within the greater Seattle area. And when we think about the advancements in technology, think of the advancements in AI, the cloud and the race to bring it to the world are on the backs of these companies. Amazon and Microsoft. When we think about, from the perspective of companies leveraging their tools and resources to tackle this Covid epidemic, Microsoft and Amazon are at the center of it, as well as a couple of companies in the Bay Area. So I always find it to be symbolic in the sense that ground zero for the defeat of Covid are in this area, and the two large technology providers are going to be instrumental in capping this on a global scale. What is interesting about this ecosystem is -- and what I love about the Seattle area is the diversity of mindset and its international backbone. Having the digital perspectives and having a unique pulse and really a unique perspective to this, that's why I believe that the State of Washington comes first when setting precedent and arguably one of the most leading places in the world in terms of facial recognition, that takes a lot of gumption and takes a lot of courage. And certainly the two biggest players, arguably, and Google are front and center. And so I find this to be a great place in terms of not only for my personal career, much more than Amazon and Microsoft ecosystem, but in terms of the metaphor behind these big providers leveraging their technology tools to help address this complex problem, but also this being the ground zero.

**Rene Peters:**   I have a couple more questions. I hope that everyone is thinking of questions that they might have for Nate in a couple of minutes. So, we talked about AI technology that you work with, the technology that has great potential to possibly address some of the current problems that we're dealing with, but I want you now to talk about tech at large and the role that it plays generationally. Looking at how we're applying it, and the youngest generation that is coming up in these circumstances, and the technologies that are currently being developed and are set to really set the stage for later, what role might it have for future generations?

**Nate Yohannes:** I think we all see a challenge in the sense that there's a massive dependency on devices. I'm certainly guilty of being addicted to my I-Phone. That I have all these applications indicating how much I'm on this device, and I was speaking to -- and I want to honor his privacy -- a very influential person in the mobile space who was one of the early pioneers of working on  the I-Phone, and he or she indicated to me that when they go to a restaurant and see a family of six, five of the six are on their phones, looking down on their I-Phones. This is an Apple executive. That unintended consequence. We can get technology to figure out how can we use technology to advance our journey, but also not be dependent on it. Because, certainly, when we go to engage our family members, go to work, the new norm in society, unfortunately, is that you don't care to have a conversation with somebody looking at their computers or on their phone. And I'm certainly not above that at times, and certainly need a course correction. We need to make sure we know that there's much more to life than the internet. I know someone just got 5G installed. I am jealous about that. But in terms of taking advantage of life as it is, my kid is in Ertrea, and there's very little internet connection and certainly very little mobile activity besides pre-paid devices. But also, looking at ways that I've been working on technology in order to reach family that I've never met before, because of the fact that we're in exile and we can't go back for political reasons. So, technology has been a great blessing to my life and has connected me to great folks, but there's also risk connecting with those folks.

**Rene Peters:**   Awesome. the last question before I turn you over to the crowd, is in this conversation, we've talked about a lot of different subjects, and how technology can be a solution to dangerous circumstances, and a be a raiser for digital equity, and that's a lot of what this board focuses on . If you could, I would love it if you had an idea of what a call to action for the board would be, for the audience. What should be front of mind walking from this talk?

**Nate Yohannes:**   In terms of a call to action, I don't think it's a call to action.  Or, it's a call to action to two parties. The first is -- and I'm highly sensitive about it -- there is a large transplanted community in the area, and before that I was in DC. I've been following these cities because of my career. But I've been super keen on trying to get back to the ecosystem. I told Rene that I couldn't be more proud to hear, as a relative newbie to this Seattle area, but to give back to the community in these efforts, because there is a social destruction which folks coming in with relatively high salaries who are driving this imbalance in the economy. There are the haves and have-nots. And also, I wanted to give back in making sure that we democratize. If we're going to recruit some of the brightest minds in the world, we have to ask how can we give back to ecosystem in the community. When Rene reached out to me, although I was still relatively new, I said, absolutely. Not for self-fulfillment, but how can I give back to your City, the folks on this call. How can I give back to the City I live in. I think a call to action is to, for us, collectively, is to disseminate opportunities within the ecosystem that it can give back to this platform and the greater Seattle area. It's certainly been great to know that there are many of us, I want to intentionally get out of my bubbles, the South Lake Union kind of poshy restaurants or some bars on Capitol Hill, how can I give back to some of the communities that I grew up in, the underserved communities. Because it was imperative that someone reached out to me, and that's where I am today. And I want to be sure that wherever I land my feet, I give back. And I encourage folks and I hope that the opportunities that you extend to people who are relatively new to this area -- so provide opportunity and help folks take advantage of it.

**Rene Peters:**    Thank you so much. It's finally time for me to rest my voice. If any of the attendees on the call or any of the board members would like to come on, we have a few  minutes to ask Nate some questions. So, feel free.

**Torgie Madison:**    This is Torgie. I was just curious about something. I know that large corporations like Microsoft can be siloed, and one organizational branch might not necessarily be speaking to another organizational branch. I wonder where the development of AI technology and those tools are shared across these verticals, across these silos, and if there is some method for information sharing or knowledge sharing that lets everyone benefit from advances or from technologies that your particular organization is pursuing?

**Nate Yohannes:**   First to answer the question, there are massive corporations and at times where people operate in silos. I always think it's unintentional, but sometimes it's intentional. Our mantra, our key to success, is the whole Microsoft story. In terms of cooperating collectively, the AI division, three are two customers. You have those who want to transform from brick and mortar to the cloud, and become an AI first company, and so there's an effort to make that come to fruition. But then we have our first party offerings, building out AI to be embedded into our solutions, the Powerpoints, the Words, the Excels, the X-Box, and so forth. We treat our first party customer internally with the same amount of respect as our third party customers. We keep a pretty tight dialogue between the different divisions of the company because of the guidance and leadership of the company as well as our employees. So, I engage with different teams to have discussions around how we can infuse AI into our businesses. In terms of democratizing AI, the world that we're entering into or the world that we are in is open source.  Last year, or the year before -- I think it was 2018 -- we acquired GitHub, a large open source platform because part of our success is to democratize our tools as much as possible if we want to leverage it. Ideally to become largely Microsoft customers. So there is a pretty robust effort to engage in developing our community to open source technology to the tune of $7 billion to make sure that we are snapping to the footprint of this modern development of open source and the democratization of our tools. I was not at Microsoft for Satya's leadership, but the company was not the best collaborating across the country. Again, this is from what I read, as well as the whole notion of open source is not something that was palatable to our former leadership.

**Torgie Madison:**    Thank you.

**Harte Daniels:**   I have two comments on that.  I came in when you were talking about healthcare and Covid. Rene, another resource for you which is a worldwide effort on GIS and the US State Department data, and a lot of foreshadowing of the tracking that you're talking about. Contact tracking. They can share that with you, afterwards. Second, You're reaching out to the underserved or concerned. The City of Seattle, when they started to release some of the stay at home, they started with -- one of the things they started with were the farmer's markets. But they started in the two areas of the City where people are economically advantaged, and where you normally have a problem with the lower income sections of the City. What was hidden in the announcements was that the way that they were trying to be safe, they were using technology and banking via the smartphone. There are two problems with that, and this would be similar to Amazon Go, which had problems in New York City and in the end, was, I think, banned because it discriminates, number one, against the unbanked, and number two, the issue you have about equity devices and data plans. So, those two: Number one, the resource from the Worldwide Geography data set, which is an open source working group; the other, along that same line, with Covid and you were talking about population and health care and their data, that's called population management, so that's a keyword for you to search on. 3M has a group called Premiere, where they anonymize their subscribers. Population management looks at all those graphics that you were proposing to know how the hospitals in the region should set up to respond to the needs of those residents, just to let you know what that term means. And lastly, there's a company called Catalyst out of, I think, Utah, that has an open source healthcare AI platform, so that anybody can develop for it and do the things you're talking about. The last one is the ask. I was made aware a couple, three weeks ago, that -- and I know Brad Smith sent an internal email out asking Microsoft employees to search and see if they have any additional devices and machines that could be donated to nonprofits. The Digital Inclusion Committee has a project that were undergoing looking at seniors and veterans and income assisted housing that don't have those devices and may need them in order to have virtual visits with doctors. Covid is why doctors are not doing in-person visits. They are asking them to do it via telehealth. We are not certain that all of those people have those devices, and so I would like to make an ask that if there is any way that you could ask to see if we could have a few devices for our pilot project. CTAB's Digital Inclusion Committee. Thank you. That's all.

**Rene Peters:**    Thanks, Harte. We'll be sure to forward some of those emails. Looks like we have time for one more question. I know we're a little bit over, but Alex has jumped into chat with one that I'll read to you, Nate.  In your view, what are the steps that the United States can take to modernize the State and federal government infrastructure in order to utilize AI machine learning appropriately. And mainly, how can we increase the amount of talented technologists in government that can help guide tech policy?

**Nate Yohannes:**   You could write a book on that. That is certainly a loaded question. There have certainly been efforts towards bringing in tech talent. There's a group, if you are interested, of folks who want to learn more. It's called the Presidential Innovation Fellowship. What it is is a one to two-year fellowship where people from the private sector go and try to tackle some of the problems within the federal government, to advance and infuse technology across the government. I know that at Microsoft, you could take 'x' amount of months or years off, where if you agree to do like the Presidential Innovation Fellowship, you can come back to the job that you left. So, there are certain areas. I know that when we were in the Obama administration, Obama invested a lot in Digital 44, with the GSA accommodating the office in terms of figuring out how we can use technology. I kind of smirked when I read that question. Arguably, the biggest investment in AI has been the Department of Defense. When you think about -- for instance at Microsoft we have a contract with the Department of Defense for our augmented reality technology, where the DOD is investing hundreds and hundreds of millions of dollars in applying augmented reality to train our soldiers to protect us every day of the week. So, seeing the United States government investing heavily into military technology as well, to apply AI across our national security, it's certainly a big spend, as well. There are efforts, whether it's a matter of wanting to do public service for a couple of years as an innovation fellow, certainly we are seeing the government investing in technology with the private sector, and the whole notion of public/private partnerships around AI. And so, it's been a pretty successful, so far, partnership, with us helping the DOD transform it to reality. So, those are just a few of the examples that we're seeing in order to advance AI and to advance our country.

**Rene Peters:**   Well, Nate, thank you so much for coming and spending your time in speaking with us. I know everybody learned a lot. Judging from the chat, there are some folks that might want to get in touch with you on topics like the public/private partnerships and digital equity in the future. Maybe, if you're willing, we could send some contact information with the minutes of this meeting. So, feel free to stick around for the rest of this meeting. And, any of the attendees, if you enjoyed hearing Nate speak today, he has a really good podcast segment with *Forbes* Magazine, called The AI Revolution Is Here. I encourage you guys to look it up. Nate, I appreciate it so much. Thank you for coming in today.

**Nate Yohannes:**   Rene, thank you for the invitation from the people of the City of Seattle, you all, and thank you for the warm welcome. I couldn't imagine a better City to be quarantined. It has been a fantastic time. I look forward to seeing all of you. I give my mother all the credit. She takes the credit for the article. She said, "I raised you." So, you can give her all the kudos if you enjoyed it.

**Rene Peters:**   Awesome. Thank you so much. And, Torgie, I guess we can hand it back to you as the master of ceremonies here.

**Torgie Madison:**  Thank you so much for speaking today, Nate.

**Nate Yohannes:**   Thank you. I'm going to hop off. But I really appreciate the invitation. To be continued.

**Torgie Madison:**  Usually at this point, we would take a break. But that break is usually for following up on side conversations with other members at the meeting, and we can't really do that in a Lync meeting. So, I was going to skip over the breaks while we have our digital meetings. Maybe I can get a quick consensus from the board members who are present? Do you have any opinions on taking a break, or should we just move right on through?

**John Krull:** Move on through.

**Torgie Madison:** Right. Unfortunately, this is just one of the realities of doing online meetings, and never having the opportunity for networking. It seems hand-shaking is completely off the table at this point, so let's just move right on through. We have our next presenters here with us. We have Diana and Elsa, and the topic for this agenda item is Census 2020. As you know, it comes up every decade. We look forward to hearing what they have to say about Census 2020, and the various implications of what a census means. Diana and Elsa, if you would take it away?

**CENSUS 2020**

**Diana Canzoneri:**   It's great to be with you all, alas, remotely. My name is Diana Canzoneri, and I am the City's demographer. I work in the Office of Planning and Community Development. And I am joined by Elsa. Elsa, do you want to introduce yourself real quick?

**Elsa Batres-Boni:**   Hello, everyone. I am not camera-ready, so you will just hear my voice.

**Torgie Madison:** It is very brave of you to go on camera.  Thank you both for joining.

**Diana Canzoneri:**   You bet. We are going to start off our presentation with why the census matters. And I'll be talking about some of the specific information from the 2020 census that I am just raring to get. Elsa and I will be trading off in the presentation. I'm going to share my screen. Hopefully, this will work.

**Torgie Madison:** I'll let you know. If possible, if we could get a copy of the presentation, just to send out with the minutes for people who are dialed in, that would be great.

**Diana Canzoneri:**   You bet. I'm trying to minimize the little part that is actually showing me on the dashboard for the meeting.

**Cass Magnuski:**  Torgie, please make sure I get this.

**Diana Canzoneri:**   All right. Definitely. Elsa, your slide is the first one.

**Elsa Batres-Boni:**   Hello, everybody.  I have been waiting for April 2020 for ten years. And I have been starting (unintelligible).... I came to your meeting last year and asked people--you know it takes so long for us to remember where you were ten years ago because you never know, it puts a landmark. And I have a feeling that for this April 2020, we will all remember where we were. The census happens every ten years. It is the official count of the population. I was listening very attentively to the presentation before. We always talk about data, but there's a lot of data out there, especially when I talk to millennial folks. They say, what should I do with more data? Doesn't Google already know everything about me? And the reality is that, yes, there's a lot of data, but the government uses census data for very, very important distribution of funds, and representation, and the redistribution and the redrawing of districts, electoral districts. More data, of course, gives us what and where and how do we look like. It's basically a picture of the US, the City, the County, the States, in 2020. It's happening. It started in March, right when the Covid-19 epidemic started. And so one of the things we were fearing and working for was how to support the percentages of historically under-counted communities. We were preparing to do all of this work on the ground, and I'll talk a little more on how that's happening, but this is why it's so important. Right now, if you haven't done it you can do it right now as I am speaking. You can do it that quickly. You can just go to the web site and do it, because not only is it still happening, but because of Covid-19, it got delayed, and we have until the 31st to fill it out.

**Diana Canzoneri:**   Okay, let's see. We'll figure this out. There's this delay between the time that I click to get the next slide and what shows up on the screen. Just really quickly, I wanted to show what is on the 2020 Census questionnaire. It's actually quite limited. It's age, a variable omitted, gender, race and ethnicity, peoples' relationship to the householder--that's the first person who is listed on the form--and tenure, whether the household rents or owns the housing unit that they're in. As we all know, Seattle has been growing extraordinarily quickly. As of 2019, when we had the most recent estimates from the Washington State Office of Financial Management. we had a population of about 750,000 in Seattle. That is a tremendous 23 percent increase since the 2010 census. And that's quite a bit faster than the 15 percent increase in King County, as a whole, and actually in the rest of King County, a 12 percent growth. So, we've been growing about twice as critically as the rest of King County, which is really a departure from previous decades. It's very unusual for a fairly mature City. Also, in the last five years, Seattle has been the fastest growing large City in the United States, according to the most recent annual Census Bureau population estimates that we get. So, with all of this growth, it's extremely important that that growth be reflected and that we do have a complete count for 2020 for many reasons. This is the basis for a lot of different funding formulae. It provides the baseline for just about every other official survey that the federal government and also many other models of government surveys that are distributed and analyzed. It's also the basis for forecasting the future, as well. And, importantly, the census provides the denominators for identifying race, understanding differences and disparities among groups. So, for example, those population denominators that we use to understand Covid case rates by race and ethnicity and by race, ultimately, those go back to what we've found in the census with some adjustments for what's happened since. So, there are tremendous implications. And it's very important that we have a complete and representative count.

I wanted to show you some additional trends that we've seen. Looking here at population in Seattle versus the rest of King County. Here's we're looking at the 2010 census. Through our most recent American community survey, the numbers are a little different. So, it's 2010 to the five-year period 2014 to 2018.  I know that's kind of a mouthful. But, the main point of this chart is that I wanted to show you how much more quickly the population of color is growing in the rest of King County, compared to in Seattle. If you look at the columns on the far right, you will see that the population for whites in the rest of King County barely increased between the 2010 census and the most recent five-year ACS, whereas it increased substantially in Seattle. And, even though I don't have this on the chart, I wanted to also let you know that I've worked at this data by age group and found that for kids and for seniors, in Seattle, the rate of growth for people of color actually was lower than for white people. So, for seniors and kids, Seattle is getting less diverse, and that's a much different trend than in the rest of the county. This is just an example of the kind of data that it's going to be really important to have accurate to really understand what's going on with these trends. And to understand how inclusive or not inclusive the City is.

I wanted to also mention that we've seen some really interesting trends on household size. The average household size had been declining prior to 2010 in Seattle, and just about everywhere else in the US. Very interestingly, since 2010, average household size has increased in Seattle. As of the most recent ACS, it was about 2.1 two people per household. We need to get more detailed data than we can get from the decennial to really understand what is behind this increase. Is it more young adults living with their parents? More roommates living together? Families doubling up? More kids? That's going to be very interesting. Of course, having the census right in the middle of Covid is going to complicate things a bit. But, in a way, it will provide a baseline for understanding what was going on at the beginning of the decade. and then looking forward and seeing how living arrangements have changed during the Covid crisis.

I also wanted to just really briefly show you some neighborhood level data. One of the things that is so valuable about the decennial census is that because it doesn't have the margins of error that our sample base surveys, like the American Community Survey, as we've gotten the ability to really drill down into neighborhoods. So, this map that I'm showing you here shows the change in shares of the population by race within different community reporting areas in Seattle. And the bars that are orange are whites, and we have people of color in the other, just zeroing in on the areas of the City. Between 1990 and 2010, in the north end of Seattle, we had a lot of increase in the share of the population for people of color. So, places like Lake City, and Northgate, and at the same time, we saw the percentage of the population who are white going down. Hispanics and Latinos have increased as a share of the population in almost every neighborhood, but especially they have increased in and around South Park. And then, of course, the biggest change that we've been seeing is the loss of the black population in the Central District and much of southeast Seattle. So, it's going to be absolutely vital to understand what's been happening to have a representative complete count from the decennial census. We've got challenges, though, so Elsa and I did want to touch briefly on some of the specific challenges that we have with regards to getting accurate representative data. So, Elsa, this is for you.

**Elsa Batres-Boni:**   Yes, thank you. This is something that we saw ahead of time, and looking into  the trends of how Seattle was looking, the bigger questions were is it really that people were moving out of Seattle? Is it really that people are not participating in the census? The challenges that we saw for this coming census, are they the obvious ones? One is a general and very legitimate increase in distrust of government within communities of color, but also for the general public about privacy and the protection of your own data. Of course, it became a big challenge when we learned that the census was going to be for the first time online, and that people were not going to receive a paper questionnaire. For those who remember, the census historically was done first door to door, people knocking on your door asking you questions directly. Then on the 2010 census, we had it mostly on paper. So, you received it in the mail. The results were confusing because there was a mail questionnaire that was long and a questionnaire that was short. It's always been a complicated operation to do because it involves different sampling, different populations, how you reach people. But one of the things that was the biggest challenge was that the Census Bureau got a 30 percent cut on their outreach efforts. So that meant that people like me who would talk to the community and remind people of what the census was, and what was it for, was cut down to the bare bones. And they invested all of the funds into doing it online, but the actual conversations with the people who were most valuable when it comes to community were left outside. There is a strong group called the Citizens Alliance applied to the State to get some funding from the local legislation to support the local outreach, as well as the City of Seattle partnering with Seattle Foundation and king County to get money to give to organizations to help us to have these conversations. Do it. It's easy. Takes ten minutes. The census doesn't share your information with any other agency. There is one of the strongest laws that protects the census so they can't share information with anybody. Those conversations are what we've prepared for for this month, and then our biggest challenge right now, which is Covid-19. Pretty much, every plan that we had to help folks who didn't have access to the internet, who were afraid of entering information on the computer. We had to shift. And so we have had to train folks left and right to do digital outreach. I'm plugging in an ask here, because any opportunity that you see for getting information out there to folks who are not normally engaged online. It's a great challenge but a great opportunity to talk to them.

I always say this, and the Census Bureau calls it hard to call communities, and I like to call it the historically undercounted.  Because that puts the focus on the barriers and not on the people. And barriers are there for the following communities:  communities of color, immigrants and refugees. I have another slide about how we are doing, because the great thing about doing it online is we can see day to day how in what parts of the country, the state.  It's right there. The great news is that among the nation, Seattle is leading in response rate. Sixty-eight point five percent is the huge number. This is an accomplishment. The bluest and the darkest areas on the right side of the map of Seattle, some of those areas are up to like 84 percent, I think that's the highest, response. We have some lower areas. The darkest red is around the University of Washington, and that is the operation to count students was coming from information within the administration, and so King County, Seattle, we are moving steady in this response to the level of access that we have to the internet. If you go to this map, you can see where people pretty much have access to the internet. This response clearly to the map that Diana was showing before.

**Diana Canzoneri:**   Thank you. Shall I go on?

**Elsa Batres-Boni:**   Yes!

**Diana Canzoneri:**   Another challenge to the accuracy in the data is actually the new system that the Census Bureau is putting in place to protect privacy, which obviously is extremely important, and it's one of the things that the Census Bureau is bound to do by law. But what it's going to be doing is injecting more noise into this decennial census data in order to protect privacy. What I've got here is a screen shot from a recent Census Bureau presentation, explaining very emphatically why the bureau is defending privacy. And in a nutshell, it's because they decided that they absolutely had to modernize the way that they're protecting privacy to respond to increased threats to privacy due to enhanced computing power and the explosion of data that is available from other sources. And those nefarious people who can put that data together to figure out things they shouldn't figure out.

Here's another screen shot from the same Census Bureau presentation. And it's illustrating that through differential privacy the bureau can measure specific level of privacy risk that would be associated with releasing any statistics, any combination of tables, and level of detail on the cells that go into those tables, etc. This knowledge of how much privacy risk there will be enables them to calibrate the amount of noise that they should inject to get that privacy risk where they want it to be. But the issue, of course, is that when you inject noise into the data, it becomes less accurate. So, there's this trade off that is much more than a technical trade off. It's a values-laden decision, where to actually set that dial. Last year, stakeholders actually got a look at what applying differential privacy would look like. We had a demonstration product that the Census Bureau provided us, where they applied differential privacy to the old 2010 census data. And we were able to compare what it looked like with differential privacy applied versus just the old version of disclosure avoidance. Actually, this demonstration product was really concerning. There were a lot of implausible estimates. Demographers were extremely concerned, and what you see in the box on this slide is an excerpt from a Washington State demographer's letter to the Census Bureau director, saying we looked at this demonstration product, and as currently designed, it would harm Washington residents.The Census Bureau got a lot of similar feedback and analyzed why the product had so many problems. The Census Bureau explained that it's actually post-processing instead of differential privacy itself, which I don't really understand the details of, but they acknowledged that, as it was applied, the method really fell short of ensuring the usability of the data. So, they're working now on improving those methods, particularly the post-processing, while at the same time soliciting more feedback from data users. A lot of you probably know more about how differential privacy works, but if you would like more information on how the Census Bureau is trying to apply it, let me know and I will definitely send you more information. I guess that's the end of our slide show.

**Elsa Batres-Boni:**   I think you all heard my daughter talking about Princess Sofia.

**Torgie Madison:**  Thank you so much for that presentation and for that well-prepared slide deck. We'll definitely email that out along with the meeting minutes. We'll help you to get it out there. Thanks to both of you.

**Diana Canzoneri:**  Thank you for having us.

**Elsa Batres-Boni:**  Yes, thank you. And I just put some resources on the site. If people are interested in sharing more information about the census. If you know of any groups, any event, we're still on time to get the word out, and to gather the most accurate data possible.

**Torgie Madison:**  I personally already filled out my census data, so I have been counted. So, let's open this up to the public. Are there any questions for Diana or Elsa about the presentation. Now is the time. Looks like you've covered everything perfectly. One of the questions that I had -- and I believe I emailed this a little bit before the presentation, but I was curious to know how people experiencing homelessness are counted, and what efforts the census uses to capture those numbers and count those people, especially in light of the recent budget cuts, and tighter resources. If you would speak to that a little bit?

**Elsa Batres-Boni:**  Yes, the Census Bureau has this specific operation covering non-traditional housing, so what they do is they organize an administrative visit to food banks and places where homeless people receive services. That's one part. And then they have an overnight count, and they coordinate with the County and the City to make sure that they have the same stats as when the City does it's own count. That was scheduled to be done at the end of March, and of course, it got a delay. We don't know when that's going to happen. The City and King County were following up closely to see what the Census Bureau is doing and how they are going to do it. We're kind of coordinating so they know exactly where people are going to end up being if they do this count in August. To be honest, the data that we're going to get from 2020 is going to be challenging and different, like everything else. So the operations were set to be counted where people are in March of 2020, or April. So, where people are in the summer of 2020 will be different. So, we'll see where that goes. It's delayed, and we'll have some more time to coordinate.

**Torgie Madison:**  Thank you. All right. I suspect that there are no other questions. We're running a little late on the schedule, so we can wrap up. We usually have a round of applause for the speakers but we can't really do that. But thank you for presenting.

**Diana Canzoneri:**   Thanks for having us. Bye bye.

**Torgie Madison:**  I believe that we are going to move on to committee updates. I know that John Krull has a presentation. I don't know if we're going to have time to go through all of it. Maybe, really quickly. we could hear from Tyler Woebkenberg with an update from the Smart Cities Committee?

**COMMITTEE UPDATES**

**Smart Cities Committee**

**Tyler Woebkenberg:**   Sure, Torgie. I can share one.  Things are moving on the Smart Cities Committee. We are making progress on the 5G. There are two other initiatives that we are pursuing. One if around Covid, but not just Covid. It's more like (unintelligible).... Join our committee by emailing smartctab@gmail.com and that will get you added to the list.

**Torgie Madison:**   Thank you very much. That's smartctab@gmail.com.  I know that Camille is not here today, but hopefully we can get an update soon. I'm sorry about the time crunch, John Krull.

**Digital Equity Committe**e

**John Krull:**  No worries. No worries at all.  Can you see this okay?

**Torgie Madison:**   Yes, I can see it. It looks like it's zoomed in a little bit.  Looks like it's kind of cut off on the right. I can see 75 percent of it.

**John Krull:**  How about here? Same thing?

**Torgie Madison:**   Yes, but it looks like it cuts off at the bullet point, Make Recommendation to CTAB.

**John Krull:**  Well, I'll just go over this really quickly, since you can't see the whole thing. Basically, I just wanted to give everybody an update. We put some slides together for our last committee meeting. Here are our goals. Obviously, we have the need.  We're trying to tie it into the Technology Access and Adoption Study. We can send this out to everybody afterwards. Right now, we're in Phase One, where we are working on a survey of SHA and SHAG managers, Seattle Housing Assistance Group, that is. We're still in the phase of reaching out to them, getting the right people to survey. We're gong to follow up with focus groups. That will take us to Phase Two, where we're going to be meeting with primary care providers to find out what services they have. Phase Three would be testing out possibilities. And, with that, we meet every fourth Tuesday, so we meet in a couple of weeks. We will be sending out information and posting it on the web site. So, with that, I will take any questions from folks.

**Harte Daniels:**  Can there be just one addition?

**John Krull:**  Oh, yes.

**Harte Daniels:**  One of the things we  identified and discussed in the meeting on April 28, is the fact that the City of Seattle would like to be included on these different projects. For Covid, or in anticipation of the aftermath and the diminished coffers as well as the additional projects that are necessary, brought about by the inequities of Covid or the recuperation from this emergency.  As regards to Telehealth, the federal government has $200 million available, specifically for the constituency that the Digital Inclusion Committee is writing this project for. And one of the suggestions during the April 28th meeting was to see if working with the partners, see if partnering with -- if any of the providers would care to partner with CTAB, because this would enhance their receiving several million dollars to increase their processes or reimbursement for doing Telehealth. Most of our constituents would fall under Medicaid and Medicare, and those were not reimbursed for -- hospitals and doctors were not reimbursed for Telehealth visits until February of 2020. This means that the providers are behind and don't have the money while they're facing stress on both their money and human resources due to Covid, to actually put those processes in place to help the people that CTAB helps. So, it would be a great opportunity for them to be able to receive a grant if they would partner with CTAB on this project. So, there's $200 million for the Telehealth in particular, and another $100 million for the infrastructure that is necessary for low income seniors, and particularly veterans, to be able to access it and use it. I wanted you to know that there is a large amount of money out there, but there's a short amount of time to apply for it. I think all that money comes off the board in July of 2020, so that gives you two months at maximum. If the money isn't claimed before then, because a lot of people are stepping up. They're going about releasing that money very, very quickly. This might be an area of interest to the City of Seattle and CTAB, both. Thank you. Bye.

**John Krull:** Thanks, Harte. Our committee is trying to come up with some recommendation within that time frame, so I'm glad Harte brought that up. So, our data could be used, perhaps, to inform the City, or other partners.

**Torgie Madison:**   That's a very quick turnaround for applying for those funds.

**John Krull:** Any questions on what we're doing from anybody? We could use more people, too, in our meetings.

**Torgie Madison:**   The next one is coming up on May 26, 6:00 p.m. Just to let everyone know, CTAB meetings are the second Tuesday of the month, and the committee meetings have organized around the fourth Tuesday of the month. Any questions? Thank you for that update. Again, I apologize for having to speed through it. So, we can move on to public comment. If anyone has an announcement, or wants to follow up on any of the topics we heard in the meeting, now is the time. I think everyone is pretty ready after a long meeting to go get some food or stretch your legs. I think we can call the meeting at this point. I want to extend another huge thank you to our presenters, Nate, Elsa, and Diana. Everyone, I hope you stay home, stay healthy and have a good rest of your evening.

**ADJOURNMENT**