

Overcoming Digital Divides: Indigenous, Remote, and Rural Co...

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SPEAKERS

Sam Andrew, Chief George, Shazia Sobani, Karim Bardeesy, Susan Stanford, Jennifer Manitowabi, Denise Williams



Karim Bardeesy 00:39

Welcome everybody, We're just looking for people to file, and we'll get started in around two minutes. We have folks joining us from across the country including folks who work across the country. And we're so, so happy to have you all with us today. Okay, hi everybody. Good day from wherever you're joining us. I'm mostly in Canada, across time zones and welcome to the first ever event of our overcoming Digital Divide series. This is a six part workshop event presented as a partnership with Ryerson leadership lab, the Brookfield Institute for Innovation and Entrepreneurship. First Nations Technology Council, and Simon Fraser University's public square, and supported by our title sponsor TELUS. My name is Karim Bardeesy the Co-Founder and Executive Director of the Ryerson Leadership Lab and we're thrilled that you're able to join us today. And before we begin, I want to take a moment to acknowledge those that aren't able to gather here with us today, frontline workers health care providers, caregivers, really all those who this conversation intends to serve those who remain disconnected from quality, safe, reliable speedy internet access. And so to help address these gaps in access we will be making this recording available with a transcript and a summary of the major takeaways from our conversation. Thanks to those who are flagging some issues in the chat around connecting and we're fixing that as well. I also want to point out the accessibility features

for our virtual conversation today, you can access a live transcript of this session in a separate window. In the top left corner of your zoom screen you will see a red button that says live, you can click the arrow that appears next to the text. After the red Live button, and you'll be given an option to view the transcript. We're really pleased to be starting the series on Overcoming Digital Divides, with a discussion about Internet access and adoption for Indigenous remote and rural communities. And it's great to see so many members of the communities that work in this space I see Jennifer Corriero, from TakingITGlobal and I see a number of other people in organizations. In addition to those who we are profiling today, and we want to show our appreciation for the work that all the members of the communities that are connected to this do on a daily, weekly, monthly basis on this. Perhaps this is one of the most pressing policy issues of the 2020s. We hope to shed light on the unique challenges in this session, facing Indigenous remote and rural communities and accelerate public discourse on effective policy solutions. And while the digital divide has often been generally characterized as an urban rural divide. We hope to use these workshops to delve deeper into the complexities and nuances of Canada's digital reality. For example, how does socio-economic and demographic factors such as Indigeneity and geography perpetuate digital inequities, and by better understanding these aspects of the situation we hope to pave an accelerated clear path forward towards meaningful digital inclusion. I think the context of this video townhall and this series is clearer than ever. The move towards online delivery of critical government services of remote work, of small business work, of online retailing, access to the internet at sufficient speed is more pertinent now than ever. Internet access and adoption now significantly affects people's health outcomes, financial stability, their emotional well being, well being, their ability to access literally life saving products and services, such as the forthcoming or already being enjoyed COVID-19 vaccines. We have an incredible lineup of speakers who we are thrilled to have join us and we hope that by hearing from representatives of communities that are directly affected, from government officials that know what it takes to make policy change possible, from industry that understand how changes are implemented on the ground, we can all come together to take bolder steps towards ensuring everyone in Canada is digitally connected. Thank you so much for helping us kick off this series, and I'm going to pass the mic over over to Chief Janice George who we're so honored to have join us to provide the land acknowledgement. On behalf of all of us



Chief George 06:07

[Indigenous welcome]. Means I'm here as a respectful person, and I just said Peace to each and every one of you here this morning, my ancestral name is Chepximiya Siyam', my ancestor was the Chief of Senakw, which is today called False Creek which is in right in the middle of the city of Vancouver. That's where my ancestors are my ancestors direct ancestors lived as well in Stanley Park, as well as other places and that are highly

recognizable in Vancouver. Horseshoe Bay where the ferries go from Victoria to the mainland, many, many places that are well known that we have, we have previously had names for these places that we still recognize. For instance, some of the names, one of the names of one of our places is called choppy water. That's what the in Indigenous language. Those are the words that is that places named. And so anybody who is traveling by canoe. A long time ago from Vancouver to our upper territory in the house sound would know when they were going to pass that place that they were going to encounter choppy water, and I just love these, these beautiful facts of our ancestors that they were so brilliant, and knew how to take care of each other knew how to take care of the coming generations. And I always say every time I look out the window or look out my door here on Capilano Reserve in West Vancouver. I see the beautiful work my ancestors have done for me. And I, whenever I go across the Lions Gate Bridge. I see Stanley Park, and I see the, the, you know the word, our largest village was. And the woman who lived the last woman who lived there are people that got kicked out and told you can only stay here if you have a piece of paper that says you've been here for more than 60 years, otherwise you have to leave. And this one determined ancestor, went and found that piece of paper and she stayed there and she stayed there until she got so lonely that she, she just had to, she just had to come home to her people. The new home and Capilano were where her family was, the rest of her family. So, you know, I just, I just feel like our ancestors and all of all of us, people can have this. All of us people can have this connection to the land that we live on. All of us can. And I encourage people to have a connection and know the history of the place where they live, and the people that they work with, and I, and the people that are in these beautiful places on their land, that have a connection to the land, and need to be connected to their land, that we can understand that, honor that, and work towards. I love, I love what you're all the work that you're doing and I just asked the ancestors to be with you and tell you these messages, pass on these messages that need to be heard today, the answers that need to be, you know the answers that need to be said, and also the, the heart and the mind to say these things. So I just want to thank you again for the work that you're doing. [Indigenous ending].



Sam Andrew 10:05

Thank you so much, Chief George and hi everyone, my name is Sam Andrew, I'm the Director of Policy and Research at the Ryerson Leadership Lab and I'll be moderating today's discussion we're so pleased to have you all with us today, and how we're going to do this, we want this to be as participatory as possible. The chat is already going so that's great. Please continue to throw your comments and questions in the chat. We're going to start today by allowing each of our panelists, a few minutes to give some opening remarks, and then we're going to be focusing on our two guiding questions that are in the framing paper that you can find in the chat. And we're also going to be asking you to

participate and give your own thoughts about that. I'll give you more instructions on how we're going to do that, once we were through the opening remarks and thanks everyone again for being here. So I'll start with, with our first speaker Denise Williams, she's the CEO of the First Nations Technology Council an Indigenous-lead not for profit, working to ensure Indigenous people have the support that they need to thrive in the digital age, Denise has worked with Indigenous peoples governments academics and social change makers to create fair and equitable access to the tools and education required to lead digital transformation in today's technology driven world. Denise thanks so much for being here.

D

Denise Williams 11:19

Well thanks for convening the conversation and yeah I just wanted to say thank you. [Indigenous phrase] for the beautiful opening words and acknowledgments. I come from the Cowichan Tribes, originally on my father's side, I now live on Tsleil-Waututh Territory which I am endlessly grateful for, especially during these times and as just mentioned in such a beautiful way that connection to land and to the ancestors and to that deeper understanding of truth and wisdom and our responsibility collectively on these lands and in these times and for future generations is so important and one of the things I'm so grateful for in these odd times is our virtual about ability to connect and to connect on these kinds of issues that really, really matter, and the fact that connectivity and digital equity and access has been delighted in such a powerful way is, I think great and I just want to acknowledge all of the other panelists and all of you who have joined the conversation today. It feels good to know that we're all paddling this canoe in the same direction and I think it's a matter of having, you know, some collective voices and wisdom around this and I'm so pleased that we're doing this here today so just typed cat thank you for everyone being here and thanks for inviting my voice into the, into the circle. Yeah, I wanted to take just just a couple of minutes to, I guess, talk about the drivers of the digital divide. Just to be clear and precise and kind of start from the beginning so from my perspective. So, first of all, you know, I think that there's a pure lack of access to infrastructure to connect in BC which is, you know, a product of our market driven model here in Canada, and that's important to point out because it means that if there's not a compelling case for return on investment the solutioning for connecting that community will become more complex and take much longer to achieve. And here in BC, this means that First Nations communities, rural communities are lagging far behind, and this has significant social and economic consequences. So, if the driver of the digital divide is is that national market driven model one of the elements is that does and does not have a lot of. I'd say robust and coordinated policy and regulation in place that is able to uphold Indigenous people's rights to equal and affordable access, then one of the questions we ask ourselves at the First Nations Technology Council is where are the levers for change

and what is our role in convening and facilitating that conversation forward. And this is why we're enthusiastic about our Indigenous framework for innovation and technology, and our foundations and futures and innovation and technology education programming, you know, so that we can begin to mobilize tech informed, educated Indigenous peoples into these conversations in a meaningful comprehensive and collaborative way. The other point I wanted to make is that it's wise of us to understand digital society and the future of connected communities better. At this moment we focus perhaps a lot on infrastructure spectrum, affordability, and how access accelerates participation in the economy. You know the take up of e-health and virtual education opportunities, but but we're all a part of a much larger movement that's not about tech, it's about data, and the use and commodification of data, which is driving multibillion dollar tech data companies and so, you know, think about it, just think about Facebook, you know, Facebook's not a tech company, it's not a social media platform to help you connect with friends you know it's a it's a data company. That's part of this movement to advance the attention economy, which figures out your particular interest and keeps you clicking in an effort, you know, to both sell you things and to push you content that can either strengthen or challenge your views in the world and in society and you've seen examples of this in politics, you know, recently, you know, the use of social media manipulation and Brexit or Cambridge analytical scandal in the US election. So why do I bring it up, I mean, because data matters data sovereignty matters. And from an Indigenous perspective, the use commodification of our data is a serious issue that does not get enough attention. And so while we all rush to build these networks. I want us to be wise and how we understand who and what is designing these networks and virtual worlds and for what purposes and I believe that Indigenous peoples and those marginalized and excluded from these conversations could radically change how we use technology and how that will impact seven generations ahead so we must not just focus on getting the fastest connection possible as quickly as possible, we must also take the time, you know, to have a vision for these technologies and determine how we want them to integrate into our communities and lives, you know, citizens have rights in this digital space, they're not often well understood or upheld because we all click that box that says accept all terms you know without reading the clauses. So just, last thought my call to action, is that we interrogate the root causes of the digital divide. We do design systems that are fair just and ethical, and that we do understand more comprehensively and boldly what needs to change to achieve reconciliation in the digital space and create online environments that demonstrate what's possible when we collaborate and build together for the greater good of humanity. You know I believe in the power of our virtual future, I believe we can create a greater sense of collective wisdom and care and digital society, and that we can use all this time staring at screens for the benefit of our planet and future generations if we wanted to, so that's why it's so important we talk about whose voices are currently excluded marginalized and disregarded from the discussion of our shared digital future,

and that we commit to everyone having the basic access tools and education to participate in digital spaces, but more importantly lead in them. So I'll leave it there, thank you.

S

Sam Andrew 18:06

I love that. That's awesome. Thank you so much for being here, Denise, and for your really strong call to action. That's great. Okay, moving along Susan Stanford is the Assistant Deputy Minister. As the Assistant Deputy Minister for connectivity in the BC government's Ministry of Citizen Services with a passion for community digital empowerment, Susan leads a talented team in BC at the center of connectivity expansion to more rural and Indigenous communities throughout British Columbia. She has also led the strategic management of telecommunication deals and technology innovation programs. Susan, thanks so much for being here.

S

Susan Stanford 18:43

Thank you very much and good morning. Chief, thank you very much for opening the session. It's deeply appreciated. And always, always fun to follow Denise, with very strong statements, and, just love that kind of framing, Denise. I'm actually going to put some of my notes off to the side, and, if you'll allow me, I just want to build a little bit on on where you've kind of kicked everything off for us this morning. My role and the role that I have been privileged to play a part of here in DC for the last five years, is really looking at, primarily the digital infrastructure. But what really has impacted that work is looking at the capacity and what digital actually means and what it brings to life, and what was required more than anything is bringing greater voice of community to be able to steward the digital future of their communities and their membership within those communities. The wave of what's been happening with digital infrastructure over the last couple of years has really been unprecedented. The amount of public funds that have started to move into this space to begin to push digital infrastructure, further and further into rural and remote communities has really begun to change and shift the landscape and change and shift the conversation in BC alone since 2017. We have about \$180 million of funding that's in flight, and with the combination of private sector funds from service providers as well as from federal funds, we start to see pretty monolithic projects begin to take shape, such as a subsea fiber optic project that will run down and connect at 154 points along BC's coast, whereas building out that infrastructure on a terrestrial build would be cost prohibitive. So Denise's point is just so probable when we consider the business model that's driving being able to connect some of these communities is based on a population or household count as well as a distance away from core centers. And one of the things that we've been trying to do here is take a page out of the OECD rural three Dotto book

that looks at reframing, and changing the narrative, on how we regard rural and remote communities in their ability to steward our resources to create food security, to look at how we manage climate, and to be an economic engine, and the people who live in those communities are feeding urban centers. So simply because they're not as populous. The business case to reach them shouldn't be any less important. And so how we overcome that how we begin to bridge, different business cases, different ways of bringing digital inclusion, so that the quality of life, to Denise's point, this ability for us to be able to connect like this shouldn't be premised on where we live. So I recognize this is going to be a meaningful and deep conversation with us here today. I deeply, deeply privileged to be part of this panel, to be able to participate, and I look forward to what's to follow. Thank you.

S

Sam Andrew 22:24

Thanks so much. Thanks for being here, Susan. Next up we have Jennifer Manitowabi, who's the community lead at Connected North which is a program, working with more than 100 schools in remote communities in Canada's north to provide broadband video connections linking them to educators in the South. Jennifer lives in the Lac Seul First Nation in Northern Ontario, Treaty 3 an Ojibway Nation and was the Executive Director of the Northern Nish-nawbe Education Council, she I think provides a really unique understanding of the digital needs of Northern indigenous communities, particularly in education and thanks so much for being here, Jennifer.

J

Jennifer Manitowabi 23:04

[Indigenous opening]. I always put out that language first when I speak and represent the community. I've been privileged in the work that I've been able to do. I have my son is 18 months. And so that brings me to my connection with Connected North. I needed now to step back and take another opportunity to still engage in work, but at the same time remain true to my values of raising my son. So the work I do like connected North is allowing me to stay home with my son and work virtually, so I put that out there. I always offer those things first the priorities that were given and the opportunities and being grateful. Um. So as you've been told, I've had a lot of connections and, and some of the things you know when I, when I worked in like school. We wanted our children to have the same opportunities in education, and what that meant, from Chief and Council was they asked me, will you come and be a principal of our three elementary schools. Okay, that's the salaries of four people. Okay. But not only that, will you be the education director, the salaries of five people, we can roll up. Okay. And not only that really be the bus driver when we need the bus driver, we only have two bus drivers and when the bus goes down, we need a driver, so can you get licensed to do that. Oh, okay. Again, like, why, because

we want to be at par with provincial system. We want to put computers in the hands of every town. And if we roll up all the salary dollars, then we can generate money to provide technology. So, I mean this is where we're at in northern Ontario and Lac Seul we were fortunate that our kids are, you know, obtaining the same devices their provincial counterparts would obtain, but it's only because we're saying enough is enough. We need to put them. We need to find a way so we sacrifice, and we, you know do double duty for the time it takes to, but then again, where are we going to be in five years when those devices are obsolete, how are we going to sustain that. Right? So these are some of the thoughts, I had another example I'll give is our tower for our connectivity is across the lake from our community, a 20 Kilometer drive down a dirt road, that shouldn't be paved but the first nation paid for it out of their own pockets out of some settlement funds right. There's not even signage on these roads that tell you that you're going to get to Lac Seul in 12 kilometers and 20 kilometers, that's you know once you pass those urban centers. Just hope for the best, because even Google can't bring you here sometimes. So there's no signage and there's no roads, but our towers across the lake and the only reason was that the provincial system closed that school where that tower is built. And the first nation asked to acquire that building, and we said you know we're talking reconciliation. How about you sell us that building for \$1 that would be reconciliation, you know, we need that power for our connectivity, we need to own that. And luckily, the people at the table at the time were all of that mind reconciliation. Yes. Never would anybody sell such a great asset for \$1, but I mean those, we went into treaty we, we pulled all our stops we showed all our cards, let's say, some, I mean I'm more of a grassroots person and I go to these meetings and I talk, and just try to provide for the children to have the same opportunity. Our people are deserving, and I appreciate your comments and you know I looked up other panels and I went. First Nations Technical Council. What's that about, and started to learn about you know they have offerings on drones, I was like, wouldn't my children be happy to participate in that conversation. Right. But if they don't even have the broadband. They don't even have the ability to turn on their iPad, you know, when we can't get into the conversation of drones as exciting as that would be. Right, so I come here speaking about 20 years from now, right. I have two grown children they're 19 and 20, one is in college for robotics. It's just a fun course he's, he's done instrumentation, which is what I encouraged him to do go into the mining sector. I mean, who are the people that are working during COVID times right, our industry people. Our nurses and our police so my daughter's in policing so these are the career paths that I encourage them to pursue at least get that little degree and then you can do the fun stuff. So now my son is in robotics and share one more quick story. That's what we do we storytellers. My daughter says my engine light is on, mom. Is it gonna be a, you know \$600 fee, just to look at that mechanic is going to charge you. And my brother, her brother comes along and says to her, You know what, just plug in this system, plug in this little chip to your car. It's going to read, and tell us what the problem is. So they do this in the parking lot in Lac Seul First N.

They plug in the chip they read it, the gas cap is loose, that was causing the problem. Right, we don't have to drive to an urban center City Thunder Bay Winnipeg we're smack dab in the middle of those two centers. And that's where we would have had to take in her car, if they didn't have that knowledge. And that's technology, and that's, those are the divides I want to conquer. Right, I want everybody to have that kind of access. Simple. Be quick.

S

Sam Andrew 29:27

Thank you so much. Well, those are fabulous stories that I think are going to center this discussion really nicely and thank you for being here, Jennifer. Okay, and last but not least, Shazia Sobani is the vice president network implementation at TELUS. Her work focuses on accelerating fast high quality broadband connectivity to boost economic and social outcomes in underserved communities. With an intention to minimize the digital divide, Shazia I think will provide a really helpful industry perspective on what it takes to build infrastructure to connect communities, thanks for being here Shazia.

S

Shazia Sobani 30:01

Thank you Sam for such a kind introduction and thank you for the invitation to be here today with this amazing panel I feel very humbled to be part of this amazing group. I would like to begin by respectfully acknowledging that I am calling in from the traditional territories of the people of the treaty seven region, which includes the Blackfoot Confederacy as well as the Stoney Nakota and certina nations Calgary is also home to meet these nation of Alberta region three. Rural Indigenous connectivity is a topic that I'm personally very passionate about and one that is of critical importance, especially in the wake of the global health crisis where millions of Canadians and Indigenous people living in Canada. I'm working learning socializing and accessing vital health care from home, this pandemic has only reinforced how critical it is to ensure all of us have access to reliable, high speed internet. We are tell us we have a strong focus to bring the best connectivity to all Canadians and indigenous people living in Canada. And as Denise touched on that. Okay, it starts with connectivity, we definitely need to go beyond that and discuss other things that connectivity, enables but we want to make sure that we do create a level playing field. And we do make that connectivity and the choice to connect the way people want to available to everybody living in Canada. We are fully committed as a company to rolling up our sleeves to help close the digital divide. I believe that with that right mix of technology, the right policies and with meaningful partnerships between the public sector, indigenous governments indigenous organizations and the private sector, we all can do it. The investments that we make together today will provide the tools and the resources to set a very strong foundation for the communities to fuel

innovation to participate fully in our digital economy, and to access critical healthcare and educational resources. We are TELUS we look forward to continuing our partnership with the private sector with the public sector, with Indigenous government and agencies to ensure that we can put all the money in a big pot, and we can expand and extrapolate the value to connect as many indigenous rural and remote communities, as we can by paying dividends for generations to come. So really looking forward to the discussion today, that the panel. Thanks Sam.

S

Sam Andrew 32:39

Thank you and thanks everybody for being here so we're gonna get started. So you know many of the panelists alluded to this, our framing paper tries to set this out, but maybe just to quickly set the context in Canada still more than half of Canada's rural communities do not have access to the digital infrastructure to connect to internet at the CRTC goal of 50/10 upload downloads or straight download, upload speed and unlimited data and access to that 50/10 unlimited data is even lower in Indigenous communities, only 35% of First Nations reserves have that connectivity. And then, you know, as we get north, it gets even worse. So, less than a third of the major roads and highways in Canada have LTE mobile broadband coverage, and none of the households in the territories have access to 50/10 unlimited. But as was alluded to, there has been a lot of promises, over the last few years, to solve that. So, the Government of Canada announced in November the universal broadband fund \$1.75 billion over seven years, with the goal of connecting all households by 2030 to 50/10 and provincial governments as was alluded to have also made a number of commitments we added them all up and it actually is surprisingly, exactly the same as the federal government commitment \$1.7 billion since 2018. So I guess my first question to the panelists and to everybody who can participate on the Jamboards, we think the jam boards are working. Yes, yes. Okay, great. I'm just going to have Nour share her screen to show folks what that looks like. So this is the question that we're going to be asking in the past but we'd love you to give your own input. Are these recent public investments and policies that the governments of all stripes have put in place, sufficient, are they going to work. Will all communities be connected over the next nine years to achieve digital inclusion of Indigenous rural and remote communities in Canada. So maybe I'll, you know, start with first with our first government representative here on the panel, since it was alluded to, first, Susan is this going to work? Is all of BC going to be connected?

S

Susan Stanford 35:07

That's definitely the goal that's been set forward by the by the federal government. And I think, I think progress is in flight, I think one of the things that, that we've been

experiencing in some of our conversations and I alluded to it in my, or kind of touched on it in my opening comments, is there's, there's so much that's in flight, that hasn't landed yet, if we look at the long history of how long it took to put initial infrastructure in place for telephone, over, over, about 100 years we're trying to accelerate that and bring high speed internet, to every corner of our province and certainly right across the country and into the far north. And so we're starting to see some pretty substantive builds in infrastructure go. But, you know, to, to, you know the other points made is there's multiple projects that are required in order to get to communities. There's a last mile, There's being able to do the community based infrastructure, there is transport to bring capacity into that community and that needs to be coordinated not just across projects but between service providers as well. In BC, we have 203 First Nations, and we count 266 rural First Nation reserves both primary and secondary that have settlements on them. And so when we try and transcend that household count and look at communities. We're starting to see the dial move a couple years ago, 25% of bases rural First Nation communities had the CRTC standard today. A few years later, it's 38% with the funding that's in place here in the province in the next two to three years, it'll be 60%. And that's before we see the universal broadband fund come into play. So I would say we're tracking, but there's a lot more work that needs to be done on the ground, versus just infrastructure projects. And so there's some other things that, that I'd be happy to share but I don't, I know the other panelists are probably like to weigh into this, I think, I think we're getting there but I wouldn't say that the recipe is complete.



Sam Andrew 37:20

Alright, we'll dig into that hopefully, surely Shazia. Do you want to pick up on this?



Shazia Sobani 37:25

Yeah, thank you. Thanks for that, I think that the short answer to that is that we need to do more. We definitely need to do more. And we need to look forward to the investments and policies that do take into account the full history of this land, and the road ahead to help fully reconcile the generational impacts of policies that have led to this digital divide, right, as Susan touched on that that when we, when we just look at the provinces. There is one very common stream that comes across that the urban centers are almost 99.9% connected with the 5010. And when we go into the remote rural and indigenous communities. It's somewhere in the 60 range depending upon where the which province are we talking about. And one of the, one of the reason of the connectivity gap remaining today between rural and urban areas is the fact that the national targets for rural connectivity, need to be more ambitious, and the various funding mechanism need to be better coordinated, as Susan touched on that, not just within the private sector but also

with indigenous governments with federal and provincial governments, historically individual funding programs have been capped it which has restricted the number of projects that can be proceeded. So the solution really needs to start where we can create stronger working relationships between various bodies between the public sector and the private sector, and wherever we, we are able to do that, we were able to create really, really great results and I do want to share a few examples here. So starting with you back. Last year we did complete a one project which was in partnership with the federal and provincial government. We have 14 remote communities were connected on cubex lower north shore, through, through a mix of different technologies and 5000 residents now benefit from high speed connectivity on a piece of land where the access is only through snowmobile boat or helicopter. Then when we, when we come to BC. The vendor partnership with all nation Trust Company partners to technology project. Over the last two years we have completed a project within [...] region where nine Indigenous communities and 13 reserves, what connected to TELUS pure fiber and 2000 individuals now have access to that speed right and we're talking about a gigabyte of speed, which people living in urban dwellings will have access to, then talking about our partnership with the government of BC we have connected Williams Lake First Nation [...] Duncan Lake, and we will be connecting some additional communities on Vancouver Island, and in northern BC. This summer, like another example which is from Alberta taking advantage of of UBF we will be connecting 56 remote communities to improve their internet access and bring it to that minimum 50/10 And then talking about creating those relationships beyond just the federal, provincial government. We are also working in partnership with Regional Municipality of Wood Buffalo, Fort McMurray First Nation Fort McMurray First Nation and [...] first nation to find ways to expand connectivity across five rural northern Hamlet's and four Indigenous communities. Really kind of to, just to sum it up. I feel that there are four things where we need to double down right one, I think that all of us have touched upon which is better coordination between funding programs like the programs that can complement each other between federal, provincial, municipal, and private sectors. Second is focus on the outcomes. We really need to start measuring success according to the real outcomes and the real outcomes is the number of households and businesses connected, the speed and the reliability of the network. Those are some tangible outcomes that you need to focus on. Third is improving spectrum policy to better enable wireless solution. Great set asides that have resulted in some fallow spectrum is not the thing that we need for the rural regions. Now the wireless technology especially with 5G is so advanced that we can actually deliver very high speeds to those rural locations. If you can unleash the power of the spectrum, and the access to it. And the fourth and the last one is that we do want to suggest that the Government of Canada, create a rural 5G tax incentive to do motivate and incentivize our private sector to double down on the investments by leveraging 5g and creating a beautiful combination with the access to two spectrum, to, to bring those connectivity speeds that the region needs. And

just to kind of sum up my, my comments. We do recognize that there is no one fits all approach to solving the rural connectivity challenge in our beautiful country, our vast country requires customized solution that reflect local geography and condition, and to really enable that I would emphasize again that we need to create those strong relationships, both at federal, provincial and local levels to fully unlock those innovative solutions.



Sam Andrew 42:55

Thanks, there's like a million things in there I want to follow up on but I want to give space to the other panelists, Denise, do you want to jump in on this.



Denise Williams 43:02

Sure, thanks. And yeah, I think I think you get a sense of some of the complexity of addressing connectivity in a really vast geographically diverse country and I think you get a sense of how multi jurisdictional. This is the amount of collaborations that need to take place to achieve these goals and you know, one of the questions I've had after being in this space for for about a decade I've seen billions of dollars shoveled on this on this problem. And I'm not entirely convinced yet that we've, we've really prioritized the connection of rural and remote and indigenous communities adequately. I think you see in some of the reports that come out from from federal government from industry we're still looking at, you know, a small you know 10% You know, of communities not not likely able to be connected for to these standards even for another, you know, number of years five to 10 years. So, you know, if you step back from that and think about, you know, what what needs to change, you know, I do think that there's something in our model here in Canada, like zooming out from this I think there's all kinds of collaborations coordinations, you know investment that can be made in our current model to improve the situation. But I'd encourage us to step back and take a look at the system that creates these inequities and these digital divides as I mentioned in the opening comments, because if you think about it from like an international comparative public policy way, you know, if you take a look at how other countries have have approached connectivity for its citizens, we're in a pretty unique position here in Canada both geographically, like I say, but also, you know, we, we've never really had a comprehensive national broadband strategy we, if you think about the word competition. This is a really interesting word for us here in Canada because we don't have a lot of competition in the telecommunications space we've got, you know, for really large telecommunications companies that own the vast amount of infrastructure in this country and therefore do wield quite a bit of power in terms of who gets what connections. And we've got governments, you know, who are subsidizing, you know, or, you know, putting these billions of dollars in program money to connect smaller

communities. And again, we're, we're focusing on the infrastructure question. We're not necessarily talking, you know at this moment around affordability of access, which is a whole other aspect of this connectivity conversation and digital divide conversation. So, the the requirement for there to be a comprehensive approach does require a national strategy which we've seen other countries, pursuing because ownership of who owns what and who has access to what is really really important. And, you know, there's also, you know, elements of this around competition where if you look at the universal broadband fund, you know, There might not be a lot of competition for who has access to spectrum in this country, there might not be a lot of competition for who has, who holds market power, but there's a ton of competition for who can access, you know, these types of funds, like the universal broadband fund to advance smaller local projects like, you know, for UBF a lot there's a lot of indigenous communities and I SPS that wouldn't qualify for that funding, and the turnaround. You know for applications and the competitiveness there is, is substantial. So, you know, this goes, just to my point of, you know, the model that we've built who can participate in it. And, you know whether or not indigenous communities are invited, you know, to compete in this in this model, or if we are truly Coker creating, and leading in the digital future. And so there's a lot of work that needs to be done in that regard so that we're actually shaping policy regulation and the, you know, United Nations Declaration on the Rights of Indigenous people which is going to be upheld and accelerated by access to technology is understood and and advanced so I agree that there's a lot of work that needs to be done and there's a lot more that that can and should be done.



Sam Andrew 47:44

Awesome, thank you. And I like the idea of, you know, a strategy that combines the affordability, with, with the accessibility and, you know, I think all three of you touched on that in different ways. And I just want to point out this is a six part workshop series because we think there's so many dimensions to this and next on April 7 And we'll be promoting that at the end is about a focus on income and affordability. Jennifer I want to give you a chance to weigh in on this, and then there's some follow up questions in the chat. So I'm just going to queue up, I'm seeing a ton in the jam board about low Earth orbit satellites and, you know, different ways to connect so I want to ask about that next but Jennifer, do you want to jump in on this. Sure,



Jennifer Manitoabi 48:28

I'm just being mindful of time there's a few things that I want to say, we're talking about competition and these are just triggering thoughts, you know, working in AI none of it, schools, and nowhere else. Will you tell me you know only five of your schools can be

connected at one time. I'm sorry, Toronto, only five of your schools can go on a virtual field trip at once, because there's just not enough. You know where we're sharing broadband with the justice and the house in education and everybody's got to, you know, have their piece and. So, I mean, nowhere else, we see these things happen, but they do happen and none of it and so I just want to put that out there, where we're talking about you know and as much as I hate to name it, but our circumstance in Ontario, I've been told is, you know, Belle holds a monopoly and for one circuit, it's \$10,000. Jennifer, so when you want your three schools connected, you know, communities such as lac saw with large land base and a large population we can we can do that so many of our communities don't have a population, or that capacity to afford. So I'm just jumping off what with Denise is saying. And these are the thoughts that I'm thinking, when we talk about proposal driven and grants being given you know First Nation students success will tell us, you know, here's a program. Go ahead, write your proposal and we jam our proposals with, you know, technology and and requests such as that, and I'll just say I will come back to us and they will say, maybe not, You know what, what if those computers break. What if those iPads are lost and, and maybe you don't want to invest that way, so suddenly. We've invested all the time. We've hired all the consultants because maybe some of our communities don't even have the capacity to write the proposal in the first place. So there goes another 70 grand off the top. So when we're asked to write proposals our proposals look very much different than others do, and the people reading the proposals just don't even have the same lived experience of being in a community of, you know, a small population and wanting so badly to be connected and wanting to have the opportunity, but it's just not there. So, um, those are just a few thoughts and I'm just going to be cognizant of the time and leave it there. I know we only have so much capacity ourselves to think all these things and to hear all these things so I want those to be heard, if nothing else. Yeah,



Sam Andrew 51:08

no, thank you very much appreciate that. So maybe quickly, just because I think it's the most popular question Does anybody on the panel want to react to the role of of Starlink low Earth orbit satellites. In, in connecting them.



Jennifer Manitowabi 51:25

The competition right I'm willing to jump to Starlink, even though Laakso First Nation, we have our own internet provider, and we have our great IT guys but I'm sorry guys I can't wait. My job depends on connectivity so I'm going to have to jump, and it's it's just the reality it's just



Sam Andrew 51:45

so Susan.



Susan Stanford 51:49

Thank you very much and if I could offer something I think, you know, since the, the declaration Act, passed in BC, we've started to see. And in looking at things in different. One of the things we've done with connectivity is not just look at the, the infrastructure side and the funding piece but actually look at the the capacity and different types of conversations that are going on to the point where we've been able to evolve conversations that we actually have a Memorandum of Understanding government to government BC government and the coastal first nations with Chief Maryland's like leading that piece, and for the first time, you know, the, the agreement looks beyond, you know, it includes those critical socio economic initiatives such as forestry sector revitalization cooperative land and marine stewardship, and climate change that now includes on that footing, connectivity, and a commitment to work together with the coastal first nations coming together on what their solution is that they want for their community we're starting to see things shift and change. We're service providers, they're in community are now providing skilling up and hiring community members in order to fulfill service, and they're taking more of a seven generations view that says once public funding commitments, potentially are completed, that there is an option to potentially turn that asset over if the community is looking for it. We know different First Nation communities are in a very different state, some of them, underserved, looking for solution, have to build capacity and other communities like Celtic, like the HYDAC have long standing experience to my nation, another one long standing experience with serving themselves in a con activity and being able to be supported in growing that capability and capacity. And I think that, you know where low orbit satellites come in, as well as the need for cellular because a lot of these community based providers don't have access to the spectrum, and how large providers can help them with subordinate agreements are able to create more mobility scaled solutions, those small providers can then deploy to their community will become part of their longer term viability, lower Earth orbit satellites are coming in Starlink is a, is in beta. They will probably if they can get the spectrum from the federal government, begin to roll out in a more meaningful way, nationally in Canada when they can build base stations, and is a real viable combination to terrestrial builds, and to move connectivity to communities quickly and to homes quickly with the model that they have if we can find a way to make it more affordable.



Sam Andrew 54:45

All right, thank you. I'm gonna leave it there and we're gonna move to question two,

which, if you're on the jam board there's a little arrow at the top so just click over to the second board. And the second question is, what indigenous specific needs, do we need to address to secure digital inclusion. So, you know, beyond infrastructure to and maybe I'll start with you, Denise and I also want to pick up on one of the questions in the chat. Somebody said, you mentioned data sovereignty, what would that what does that mean to you when, in this context if so if you could pick up on that too, that would be awesome.

D

Denise Williams 55:20

Well, why don't I start with that and attach it to the Starlink conversation, um, you know, I think that it because that's a great example. You know Starlink I totally agree with what Susan has said that there's an opportunity with Starlink to to see it as a complement to a number of technologies that need to be in place to achieve connectivity to hard to reach places and Starlink also, you know, as far as I understand, isn't prepared to be able to connect communities, north of Prince George Well is what I heard last summer here in British Columbia, that's that's not, that's not very north. So there's, there's still some challenges, I think in terms of how low Earth orbit satellite constellations can serve northern communities and I think it will be some time before we see them becoming as disruptive as I think we all hope it's going to be, but I would say that, you know, in terms of data sovereignty, if you think about, you know, 1000s 10s of 1000s of satellites circling the globe over many different countries, with many varying different levels of policy and regulation around the use and access of data. There are some questions there that I think we haven't answered both as a country, but also globally what those agreements are going to look like and as I mentioned with data being the most important commodity. On our planet, I mean it is something to really think about how much data is going to be transferred, you know, throughout those constellations and from an indigenous perspective, you know, how is our data going to be used and commodified, to understand indigenous populations and you know I heard recently that for somebody, participating in a diabetes, study, where they're giving their health information every couple of weeks that data, it can be sold for upwards of 25 to \$30,000 it's that it's that important for health companies to understand. I mean of course that person doesn't see any of that money, right, of course not. But that's what it's worth and that's my point, you know, in a, in a more in a broader conversation around how we're using technology and how we're getting over our data, it's being used and bought and sold and traded, and we're not seeing any of the, we're not seeing any of the benefit of that. So, indigenous people have always had this challenge. We've always had this issue where, even now, a lot of our community information is given up to government for reporting purposes, but, you know, it has not historically been used for the building of self determining sovereign nations that the the actual impact implementation of technology, you know, even back to the 70s and 80s a lot of technology was used primarily for reporting purposes to federal government,

so we're really thinking about as indigenous people you know how to build technologies that serve our people that serve our communities that serve seven generations and data is a big question in there, we have to, you know, ensure that we're upholding OCAP ownership control access possession of our own data, and that we're able to use it like I say, for the reasons of self determination so that's one of the things that you know is important in the conversation of indigenous people's use of technology and it's important for government and industry to understand and respect that, that it's not all about just getting the same applications tools and systems deployed into First Nations communities, it is about First Nations indigenous leadership of those technologies the vision for it, the implementation of it and where investment should go and how it's used and prioritize needs to be led by indigenous peoples as a starting place. We have to build the capacities within our nation's within our education systems. A lot of folks I've said over the years a lot of folks are have a similar upbringing as me, you know, I was raised in Haida Gwaii by loggers and truck drivers, and nobody taught me or told me much about, you know what a career in technology, or, you know, a career where my job would include using so much technology. I was not really well informed, or knowledgeable about that, because I lived in a community that didn't have any access, you know and don't come from a family where that was a career path. So, a lot of folks have that experience and so that's why we're so passionate at the tech council about our skills development programming. And I think that that's a really important starting place is to ensure that you know we're doing everything we can to inspire indigenous people to take up digital skills development programming and that there's no barriers to accessing that kind of programming, and that, you know, it's, it's the skills to be in the sector or to be you know a network technician. But now you know at the tech council we talk a lot about indigenous leadership and tech, and you know folks who can think about the design of this future and who can be part of this conversation, because we haven't, you know, we don't have enough indigenous voices in this country around the future of digital society and the advancement of technology in our communities and, and remembering too that indigenous peoples are, you know, you saw the statistics are many of us are not connected, and just reminding everyone that we're also not connected to those communities, and to those people and that's that. We're also missing out on what those communities would contribute, you know, to our economic and social fabric of this country so it's a two way disconnection. And that's why it's so important that we think about it different and we and when we do, we do better.



Sam Andrew 1:01:39

Thank you, I mean you are one of those key voices right now, thanks so much for those contributions. Jennifer, I want to I want to hear from you on this. Oh, you're muted.



Jennifer Manitowabi 1:01:56

Sorry I'm busy in the chat, doing all the things in the chat



Sam Andrew 1:01:59

It's great. Keep it going everyone.



Jennifer Manitowabi 1:02:03

Yeah, so just a big hello to all the players I mean when we're talking about data sovereignty. One of my thoughts when I was initially asked to come here was, you know, came up. Brian Beaton is in the chat room so we're having a little solo there. But, you know, they were the very first to bring me my big computer and all these things right, so I've seen so much growth, and my first email account, right, that I had to give up finally because it wasn't supported they never got the funding to do that. Right, but they did it anyway, and now they don't have the funding to support that server so that server had to go. And now I have to have a Gmail like everyone else. So you know these are some of the things that when I was asked to come and sit on this panel I said yes immediately, you know, and was excited about the opportunity because I think it's so important that people hear our voice.



Sam Andrew 1:03:04

Thank you. Shazia or Susan, do you want to jump in on this?



Shazia Sobani 1:03:10

Yeah, sure. I think so. A few things I would like to say here is that, as part of TELUS' commitment to supporting reconciliation. We do our best to engage directly with indigenous governments, as well as partners like and go through to the project of pathway to technology to create effective joint investment initiatives so that we can meet the real and unique needs of each nation as established by national indigenous economic board connectivity, as a key underlying indicator for economic success. Thank you so we want to make sure that we are continually seeking our feedback from communities on how they would like to work together with us and we look forward to strengthening and maintaining the, the current partnerships. Recently we released our second, a second annual report on indigenous connectivity which was last November where we have highlighted some of our work and the investments that we have done across a number of indigenous communities, particularly in BC where the reliable connectivity is creating some tangible benefits for the

communities based on how they want to use it. Right, so it's not just to drive the economic benefits but also empowering the communities to leverage the community to advance their own nations of chapter. And these could be things like language revitalization which highfliers doing in a very effective manner leveraging the broad pure fiber connection and then the technology that rides upon that, or other communities who are using it to enhance healthcare outcomes, or for economic development and job creation, right, we recognize that we won't always get it right, Right, we have to start with that premise, but we have to engage with the right stakeholders and with the right people and invite the voices through our reconciliation journey, but it's important that the voices of indigenous communities are heard and respected. I would also like to make sure that while doing that, we give each other, that you respect not just to invite the feedback but also try to understand that as well.



Sam Andrew 1:05:22

Thank you. Thank you, Susan.



Susan Stanford 1:05:27

Thank you guys. I'd love to have a couple weeks in, in. We've learned so much over the last few years, in, in engaging and having conversation and I would say listening to First Nations on on a whole have community approach to how we look at digital digital infrastructure, and how we actually come to the table in a different way. In 2019, we had our first indigenous lens, seven generations gathering, and the hydro hosted it on Haida Gwaii, and we began a two day. You know, listening and engagement. Connected North was there, taking it global was there. You know this was this was really something we started on the beach, near Old Masset and began digging up clams. And from there the Guardian watchmen that have this responsibility on the island, brought in and showed the how they're using drones and the drone then flew in, and we had a conversation around data, and we're all standing in a large circle, private sector organizations there for different reasons. Chiefs Guardian watchman stewards are all there, and trying to better understand the data components to what the, what was critically important to the community and what they were trying to do, and the two days of digital conversation centered around the Guardian watchman program, so that there was a deeper understanding of, you know, a priority for the community and how digital interwove, not just the digital infrastructure, but how it was used, how the community could do it because we saw the Guardian watchmen as being the digital leaders for the evolution of conductivity and the evolution of digital and data usage for that region, with the use of tablets, monitoring traffic, taking inventory and collecting data and how they would manage that data, as well as acquire data from say Ocean Networks from NRC with

terrestrial sensors and other data sources. So it's, it's very much as Denise has been describing, very much an inter woven fabric. And I think as we listen and experience and are guided more then the relationship and the type of agreement that we have with coastal First Nations is something that we can replicate and make better with other nations as as we're currently embarking on that now.

S

Sam Andrew 1:08:21

So we probably just have time for one more. So maybe, Denise, I'll give you, I'll give you the last word be feel free to obviously react anything you just heard, but also seeing in the chat that the need to create tables and spaces for these conversations is, you know, hard work to make sure that there's indigenous voices at those tables, and that the role of of indigenous youth and mentorship and training of indigenous youth to be part of those is, is critical. So that's sort of what I'm picking up on the jam board so I guess any reactions to that in any closing thoughts from you, Denise would be great.

D

Denise Williams 1:08:56

Sure, thanks. Yeah, I think inclusion is critical and I, I think inclusion is not just about being at the table to have to provide a perspective on the current conversation, it is more to be at the table to transform the conversation and to lead us in a different way of thinking, and you know that's that's maybe not the work of my generation, but you know I want us to be the generation that sets the placemat so that future generations, you know aren't only talking about access and infrastructure but we're talking about the indigenous approach to artificial intelligence, the indigenous approach to, you know, these types of technologies and virtual spaces and what it's going to mean for the continuation. You know of our cultures of our traditions of our protocols of our languages of our ways of being and so for me inclusion is a big multi dimensional word, and it's not just enough to be at the table, it really means that, you know those holding power and decision making at those tables, understand and are ready to be influenced and transformed by different ways of thinking, and that is, I've always said, central to what innovation is all about. And I think that indigenous ways of thinking are not, you know it's not only for the benefit of indigenous people this is we're talking about, you know, indigenous voices contributing to the future of advancement of humanity in our digital society, and so it is. It is incredibly important, and we do have a long way to go but I'm so encouraged by the folks that I see coming through our programs by the fact that we're even having this conversation with government and industry present, you know, I think I started my comments that way I think I'll end my comments that way that it's incredibly important that we stay in these conversations and that we are bold, you know, in the art of what's possible here and that we continue to challenge our assumptions about what we've built, and who it serves and

who it doesn't serve, and what we need to do better, not in 10 years not in 15 years but what do we need to radically shift and change and challenge right now to create digital equity in this country. And, you know, what are we not necessarily, I'd say, upholding in the fact that connectivity is a basic human right, it's an essential service, and the longer that we treat it as something that you have to buy that you have to have some level of economic standing in this country to access the longer we're going to continue to see this digital divide, widen and so we need radical shift we need to think differently about about this as a utility and as a human right to access because truly, as we've seen now access to the internet is, is the way that we are going to continue to participate in this society and in our economy. It's, it's here, you know, it was it was happening, but now it's here. We're digitally reliant, and it's, it's time it's time to make bigger, more bold decisions about inclusion so thank you



Sam Andrew 1:12:44

So much, Gingrich, and thanks to everybody that was, I thought, a really rich discussion and we're really just getting started on scratching the surface of the complexity of closing the digital divide in Canada and we have a series of workshops that we're going to try to explore this issue through and, you know, create a common thread throughout all them and you know sort of try to synthesize what we heard. So our next one is April 7 Same time, same bat channel at noon Eastern nine Pacific. This one is focused on on low income communities and we have a great lineup of speakers again. So you can register, we're throwing the link in the chat right now, and we'll make sure the Zoom links work again this time sorry about that again, thanks for all those who who managed to get here. And we're the jam boards will remain open if you want to give more thoughts as you sort of think about what you heard today, we'll also be sending out and posting a recording of this, along with the transcript for those that had to pop out or want to go back and hear it again. So thanks so much, everybody. We thought this was a great start, and we'll keep this open as well for a few minutes if people want to do more, chatting in the chat. But thanks so much. We hope you all have a great day and we'll hopefully see you again on April 7 Take care.