[00:00:01 The CSPS logo appears on screen.]

[00:00:07 Kara Beckles appears in a video chat panel.]

Kara Beckles, Privy Council Office: Good afternoon and welcome back to the 2022 Data Conference: Driving Data Value and Insights for All Canadians. We hope you enjoyed the simultaneous session this afternoon. I know I had some great takeaways from some of the previous sessions and we'll talk more about those at the end of this session. As a reminder, we're taking questions through this webcast interface. Please go to the top right-hand corner of your screen and click the participate button and enter your questions as you think of them. We might not get to all of your questions, but we'll try to get through as many of them as possible.

Next up, we've got a fireside chat and we invite Vidya Shankarnarayan, assistant deputy minister at Agriculture and Agri-Food Canada to introduce our next guests, Catherine Luelo, the chief information officer of Canada at the Treasury Board Secretariat, and the newly nominated Stephen Burt, as chief data officer of Canada, also at the Treasury Board Secretariat. We're excited to hear this upcoming session. Over to you, Vidya.

[00:01:06 Four more panelists join the chat.]

Vidya Shankarnarayan, Agriculture and Agri-Food Canada: Good afternoon, everyone. And thank you so much, Kara. So, I am Vidya Shankarnarayan, and I would like to start with a land acknowledgement. I'm coming to you today from the traditional unceded territory of the Algonquin people, here from the national capital region of our country. And I have to say, I have been counting the hours and minutes to this session, because I am just absolutely delighted that I get to have a fireside chat with the CIO of Canada, Catherine Luelo, and it's just been my pleasure to be introducing Catherine. And yes, there's a surprise guest she brings with her, Stephen Burt. But to start off with, Catherine, I would like to invite you to provide your opening remarks.

Catherine Luelo, Treasury Board of the Canada Secretariat: Merci, Vidya, and thank you so much for providing me with the opportunity. It's one of my first opportunities to speak with the data community. I'm rounding out about seven months of experience with the government. I'm almost able to talk about my seniority in terms of years. So, I think that seven-twelfths of the year I've been with government, and what a ride it has been. And I'm really excited today to talk a little bit to you about some of the aspirations, practical aspirations, that we have within TBS for a whole of government as it really to digital and data.

As Vidya noted, I have a special guest with me today, so the timing is brilliant. We'd not planned it, and if we tried to, we couldn't have planned it any better than how this is rolled out. So, I'm joined today by Stephen Burt. Stephen has graciously accepted

the post of chief data officer of Canada, working as part of my senior executive team in Treasury Board. We're just in the final stages of building out that team. And I'm excited for a couple of reasons. One, Stephen individual, and I'll maybe give him a second to introduce himself here in a second in terms of his background, but more importantly for the message that that is sending across the entire town around the importance of data, not just to government operations, but data more generally as a Canadian asset.

The ability to put in place this type of a role, to set leadership direction for government is, I think, a very visible, tangible nod to all the work that this community does. And you have given us a great jumping off point to begin this work. We are not starting from the start line; we are starting a race that's already being well run by many of you on this call. So, Vidya, what I'd maybe like to do is just pass it to Stephen to introduce himself a little bit, and then we can jump into it.

Stephen Burt, National Defence and Canadian Armed Forces: Thank you, Catherine, and good afternoon, ladies and gentlemen. My name's Stephen Burt. As said, I'm pleased to join today as a special guest at this session. The announcement came out this week and I'm very, very pleased to be joining Catherine and the team at Treasury Board secretariat in the office of the chief information officer, in the new role of chief data officer for government. So, I'm- just to introduce myself, I can measure my government experience in years. I've got about 26 years in, largely in the national security and defence world where I've worked in intelligence and a variety of policy and operational roles.

But for the last four years, I've been the ADM for data innovation and analytics at the department of national defence, setting up a new data practice there. So, I've had the pleasure of two years ago, maybe three now, of co-hosting this conference with Canada School, and in the last real face-to-face version of it that we had before the pandemic, and really, really happy to be joining here today with all of you.

I think we have a vibrant CDO community across the government of Canada. I caught the previous session of a number of CDOs, Sandy, Ima... Oh, it's escaping me now. Chris was there and there was someone else whose name escapes me, and I'm going to have to apologize afterwards. But there are a number of folks around who've been in this for a lot longer, who've been at all of these data conferences. And while I have not had that pleasure, I am very pleased to be here today and to be able to add what, Shaifa, of course. Thank you for that, be able to add my, what little expertise I have into the team at TBS-OCIO. So, thank you, Catherine. Thanks, Vidya.

Vidya Shankarnarayan: Excellent. Thank you, Catherine and Stephen, and welcome back again. So, it's . . . we have a couple of questions for you and then after that we'll have about 15 minutes to take questions from our participants. So, it's . . . I'd like to point out that we have simultaneous interpretation, via teleconference and by CART Services as well. So, just want to have a friendly reminder that we do have simultaneous interpretation via teleconference as well as by CART services. So, now,

we're going to get started, and I am really excited to be posing a few key questions to get started. So, the first one, it's interesting. So, Stephen has 26 years in the government. I have about 20 years, and Catherine said seven months.

The first question is on governance, which is a word that I never heard when I was outside the government. Perhaps it was very early in my career when I was at Nortel. So, let's see how we going to tackle the first question on governance. When governments are forced to do more with less, which governance practices must be strengthened, prioritized, or implemented to optimize digital processes in order to deliver services and programs to Canadians? So, Catherine-

Catherine Luelo: Okay.

Vidya Shankarnarayan: ...How about I pass it on to you?

Catherine Luelo: Well, first of all, I felt sad because I realize I'm the junior officer on the call here today and likely, I'm the least equipped to answer the question. So, thanks for pointing that out, as you ask the first question. Yeah. So, it is probably more a function of when you started your career in government. Governance is something that I'm pretty familiar with from my private sector environment. And for those of you that don't know my background, I've been in telecom, spent some time in the pipeline energy sector, and have worked for both of Canada's airlines, and the last assignment being, working at Air Canada as COVID hit. And if you want to talk about a catastrophic leadership opportunity, that was it. Incredibly insightful part of my career to be at an organization that was brought to its knees overnight, and to deal with the 20,000 employees being laid off over a six-week period, grounding aircraft, and just the angst of being in that industry during COVID is a subject of another fireside discussion at some point around leadership and difficult times.

And the question, Vidya, is always the same, what is enough governance and what are the right parameters to put around governance? So, maybe, let me talk a little bit about my early observations. We govern a lot here. In fact, we govern our way into creating delivery risk sometimes. So, that is something that I'm talking about quite a bit, both at Treasury Board, but certainly in DM Core, which is the core services oversight committee that governs the large through programs within government, next gen pay, the border modern- or immigration modernization and the ESDC BDM, benefits delivery modernization. These are big honking projects.

DM-CEPP, which is the committee that does priority and planning is another committee that I'm part of as a deputy minister. And these are two core governance committees around technology work. Now, I know that there's governance at your department level, there's governance in other parts of the organization. And for me, the trick around governance is making sure it's being helpful to the cause, invasive enough that it's making you ask yourself questions that maybe you don't ask yourself on your own, but that it is ultimately helpful to the mission of delivering the thing. And so, what is

agitating for me, from a governance perspective is, when it becomes about presentations and slides. What is helpful to me about governance is when it becomes about the right conversations on the policies, processes, risks, things that are in place that are making something hard to happen.

In terms of prioritizing work, we've got a challenge ahead of us. We have not met an idea we don't like is my observation. By the way, that's Air Canada, Enbridge, TELUS, WestJet, every company I've worked for has exactly the same backdrop of what I've just said. So, we shouldn't feel so special that we are challenged with prioritizing work. That, to me, is the secret sauce, though. If we don't prioritize the things that we're going to win on, we prioritize nothing. And that means we move everything incrementally, a centimetre, and we don't move some of the files the distance that we need to move them. So, that's about how work gets done.

Let's talk about things like enterprise architecture review boards, and some of the standards and policies that we are accountable for within Treasury Board, as an example. Those are mechanisms to make sure that as we're delivering on a large complex portfolio of work, we run about 8,000 systems applications across the government- that might be a little bit light, and 500 data centres. The scope and scale of what we do is massive. That we don't end up deviating and running in 146 different directions, which, if you don't have governance practices in place that bring you back to a true north, it becomes difficult. And in the data space, this is very obvious.

So, I think for me, one of the things, there's a couple things on my mind, prioritizing the right work, having governance that is practical and helpful. And two, is making sure that the policy instruments that we have, and you'll hear me talk about policy and performance together, are helpful in starting to bring us into a more enterprise view on items, but acknowledging the fact in an organization the size, scale, and complexity of what we are, you can't drill everybody into an enterprise path or you're going to slow everybody down.

So, what are the ways to begin to corral things, but still advance work across government? And that is the art of what we do as CDOs and CIOs and CTOs, is knowing when to halt things and knowing when to say, "Okay, not exactly, but we'll bring that one back in down the road, because that work just has to advance." Stephen, love, if you have any additional comments you'd like to add to that.

Stephen Burt: I think that was a great answer. Maybe two small things I would add to that, one on governance and one on the reductions aspect of what you were asking there are tough times aspect that you're asking there, Vidya. On governance, I think we have to be careful. We have a lot of participants of governance that, where we want to make people feel included in the decision-making, and a lot of that is hierarchical. We do need to make sure that we are privileging on governance the people that are actually best positioned to make the decisions. And particularly, I think from a central agency

standpoint, that means having governance that is perhaps less hierarchical and more focused on the baskets of accountability.

So, I think we've done that pretty well with CFOs and CIOs, where we have acknowledged that there is a basket of non-hierarchical accountabilities that go with the CIO function, and that the hiring level at you are at the hierarchy can change depending on how big you are. That's very much what we're seeing in the chief data officer space now, too. And we do need to find a way to make sure that we don't default to ADM DG and director-level decision-making when we need to bring together those accountabilities, regardless of that hierarchical aspect, in order to drive the work forward.

The other thing I would say with regard to when you're governing through tough times, one of the lessons I've learned from my military colleagues over the years has been that when times are tough and you need to make cuts, privilege the future. You need to be making decisions and making investments on things that will pay off in two, three, five years time. And if that means you need to take a little more pain today in which you're trying to deliver, you need to, that's usually the right decision to make. And I think in the technology and data space that comes down to future capabilities versus in-service support. But that's a tough space because you can't let things fail either. But wherever you can privilege the future is where I would say.

[00:16:07 Catherine's panel loses focus, blurring her slightly.]

Catherine Luelo: Yeah. And Vidya, I just, I'm going to bounce back in. We're going to do a real fire side. We're just going to randomly go around, and my camera just went out of focus there. So, actually, I think this is the tech guys putting a glamour filter on my camera. Okay, there we go.

[00:16:20 Her panel re-focuses.]

We spend a lot of money in government on technology and data. And I think part of what we need to start to think about is the efficiency of that spend. So, give you a really simple example. When governments are forced to do more with less, we just went out and said, "Hey, give us all your projects you're working on," and we got 47 of them that came back out of 4,000 that were almost the same.

And there's no crosstalk around, "You're doing this, I'm doing that," and that's a leadership role the centre's got to lean into a little bit more heavily. And again, it's back to that tension of where do we go as an enterprise and where do we go alone? But if we go alone, let's do that knowing that we've made that choice on purpose, not because it's just easier when want to go alone. And data is just, I think, a target-rich environment for us to think about how we stand up a data capability for the government in a way that really considers how Canadians interact with us. And they don't care whether we're

ESDC or CRA, or they're looking for something about a business, whether they can access a program. They think we're the government of Canada.

And the reality is we have, I think, 40-some sign-on portals into government that creates a whole bunch of risk, not just from a service experience perspective, but from a security perspective, from all the things you just pick up the newspaper and read. And I think we're at this right moment in time where it's like, it's our time, data is the asset. And I certainly believe that in private sector. And I don't mean that in a commercial context, I mean, in terms of how we actually serve Canadians. It's an incredibly powerful asset. Are we spending enough money on this space? My old CEO used to say, "How much is enough money?"

We have a lot of money we're spending in this space and the discipline to say, to Stephen's point, we're going to go first here and we're going to lean back on that, that is really the work ahead of us as a town right now, is to figure out. And there will be people that are going to get their work advanced, and there's going to be others that are going to have to say, "My thing doesn't get to go, but I'm going to actually help make that thing go faster, because that's actually the right priority for whole of government and for Canadians."

Vidya Shankarnarayan: Wow. Thank you, both of you. And I have to say, Catherine, I've heard you speak a number of times during our CIO councils. What I have to say is you have really have such an in-depth understanding of our governance in the government. I'm actually quite amazed just because it's... Yes, I couldn't have said it better with regards to both of you actually providing your comments with that question, or I should say it is a detailed question. And myself, having worked at ESDC, I said when it was still called Industry Canada, Passport Canada, and at some point, I was also at Treasury Board and now at Agriculture. Completely agree that irrespective of where you are working in, the investments we make are extremely important as we are actually working with digital and data, which takes me to the next question.

I'm now curious to see how we are going to actually provide us with some key comments on this one, which is, IT and interdependency of data and digitization. So, what IT security infrastructure has the GC implemented to manage, store and access the large volumes of data that it collects and that is created by increased digital processes? Some examples are cloud, reliability of systems, protection against cyber threats, protect confidentiality, et cetera. So, maybe, Catherine, I am going to pass it on to you first, if you don't mind.

Catherine Luelo: I was going to phone a friend and make Stephen answer first, but I guess you've painted me into a corner there. Okay, so I'm happy to provide some comments. We have a great accountability as the collectors of massive amounts of data to protect that and to secure it and to treat it the way that we would want our parents' data treated, because that's their data. We're all Canadians are in our systems. We also have operational data, whether it's in the defence world that we want to make sure

we're keeping safe and secure, or whether it's in business development policy areas of government.

So, you're construct around making sure, from a data perspective, that we are always looking at it from the construct of, I use the words safe, secure, reliable. It needs to be secured in a safe manner that's consistent with all of the privacy accountabilities that we have as government, but it also needs to be reliable. And you touched on cloud a little bit. We early days in our journey to cloud, less than 5% of our information is in- we have a very, very small footprint. We aspire to be in a very different spot. Let's call it 40, 50%. We will never get out of data centers entirely, likely in my tenure. Now you can decide whether that's a six-month tenure or a multi-year tenure. But I'm making a point to say data centers are literally always going to be part of our future. And you're seeing that even happen with the banks, where they were full onto cloud and they're pivoting back to a bit of an on-premise environment for certain types of utilities.

I think the other piece is, as we get into this environment where we've got this hybrid, so you've got cloud, you've got software as a service, you've got data centers, that movement of data around that ecosystem is something that we need to be really thoughtful around. And I want to go back, Vidya, to the really great opening question that you asked around governance. Having some governance practices in place that describe what that needs to look like, and that includes governance around what are the best practices, but it's also around what are the security obligations around that? What are the privacy implications of that? And so, all those things are on my mind as I start to think about- the volume of data is not going to get smaller, it's getting larger. And how we set the path as we begin to migrate into cloud for setting the parameters up properly so that we don't end up having a big cloud data swamp is really, really important. And maybe the last comment I'd put on this before I maybe pass it to Stephen, and I might weigh back in after his comments is, I have experienced, both at Enbridge and at Air Canada, that as you start to stand up the capability of cloud and the optionality that buys you to stand-up environments and push data in and run testing, you run the risk of not having discipline around turning things off and cleansing things.

And so, the discipline around, A, what we collect, and just because we can, doesn't mean we should, and having protocols around disposition and retention of data is really, really important. And it's important from a risk perspective, because if it's there, safe, secure, reliable, you need to be responsible for it, but it also is expensive, and so, you got to put both lenses on that.

We're in a very different context in the government. We have different drivers in private industry. But our old commercial teams will be like, "We're going to keep that data because in 25 years we might want to run an algorithm on it to tell us how we position something in the market." That's the wrong answer. And so, there is, I think, some thinking that needs to go into how we think about what we collect, where we store it, when we dispose of it, and most importantly, how we provide visibility to Canadians

on that. I think that's at the core of our digital strategy is going to need to be that, and data and digital, they go together. Stephen, feel free to weigh in.

Stephen Burt: Yeah. No, it's a great question. I find really interesting that the question was couched in the context of security. There was just more in there than just the security piece as we start to build out some of these data capabilities. But I think the... I love the last point about data as a liability. We talk a lot about data's strategic asset, and we struggle to treat it like an asset in real terms, the way we would treat more tangible assets that we're more used to, so there's a lot of work to be done there. But data as a liability is a real thing, right?

Just an example that was brought my attention not too long ago. If you look to our cousins in the south, to the south of us, with a somewhat more litigious society than we have, open data's become a real headache for the public sector in the US, because it's creating new avenues for liability, especially at the municipal level, where information's or data's being gathered and released in ways that are causing people to raise their eyebrows and thinking to court cases. So, we need to think about what we're collecting, we need to think about how we're storing it. We need to think we're getting rid of all that stuff, Catherine, as you said, I agree completely.

I think the key issue for me as we start to generate digital capabilities that are collecting and pushing data in volumes that we are not used to, is we've got to simplify the systems landscape, right? The 8,000 applications that Catherine referred to earlier, that's, considering the vast majority of the security practices we have in government are pushed to the perimeter of systems, that's an impossible task, right? You can't, there are so many attack vectors, cyber and otherwise, on that number of systems. We've really got to get into a zone, from a security and trust privacy standpoint, where we are securing at the data layer, and understand where that data is going to, what systems it's residing in, and what the protections are against it.

There's a life cycle aspect to that, too, right? If we look at digital identity, there's going to be issues around, once it created a digital identity, when do you dispose of it from a ESDC end-of-life [inaudible 00:28:01]. There's a whole bunch of things you're going to have to think through in that space. I think being early in cloud adoption is going to actually be really useful to us, because we're going to be able to move these things, migrate into cloud and build cloud native in ways that, where we are cognizant of this stuff, as we sunset some of our 8,000 applications.

But I'm quite concerned that we demonstrate to Canadians what the value proposition is as we start to build capabilities where we want them to be entrusting us with their data. They have to understand what it is that they get out of that, and they have to feel a sense of control over it. And I think that that's going to be an interesting challenge in the current trust environment we have with the federal government right now. So, I will leave it there. I think there's lots to unpack here.

Catherine Luelo: Yeah, Stephen, you raised a great point and I'm watching the awesome questions in the chat right now, and I just want to bounce there. And I'd already made a note around open government. It is, when you think about data working in the open, open government, access to information, there's a correlation there. And I think there's a big question around open government and what do we do in the open versus the classification, security, some of the declassification, as things come through into libraries and archives? And we spent quite a bit of time with Leslie and team around that whole data life cycle, let's call it. There's a really interesting problem statement in there.

Last point, digital ID. We got to do this, not even optional. So, if there was one thing that I would hope that folks take away from the conversation today, we need to do something that allows there to be no wrong front door for Canadians. The way that we are having Canadians access services is all over the place. And that doesn't mean it's bad, it just means that we are one government, and we should be providing an opportunity to create a digital ID in a digital economy. And that's not just for access to government, that's access to services right across Canada.

And there's a lot of work going on right now with our provincial and territorial colleagues who are really advanced in this space in a couple jurisdictions. And to me, this is about, let's take the best and all run faster. This is not about everybody creating their own thing, back to the enterprise conversation, Vidya, we had a little bit earlier in our chat. But I'm very encouraged by all the very smart questions that are in the chat. We should get everybody... Too bad we can't do this as a live stream. There's excellent points of view being offered. So, thank you for those of you in the audience that are posting your questions.

Vidya Shankarnarayan: Thank you, Catherine and Stephen. So, yes, so I'm eagerly waiting to jump into the questions coming in through the chat. But before that, of course I do have one quick one, which is, I think it's, I want to say it's more from a selfish perspective, because it's on partnerships and collaboration. And Catherine, when you were speaking, what really caught my attention was how much similarities we have when you spoke about Enbridge and Air Canada, and now as the CIO of Canada. I mean, you were talking about it's the challenges that exist, the technology debt that exists, and the partnerships required, whether it's the private sector, whether it's the banking sector, whether it is the government, those challenges exist across the board.

And Stephen, when you were speaking about really coming down to it, it's cloud and how do we actually start streamlining systems. I think the next question is going to be an interesting one because, selfish from my end, because I'm eagerly waiting to set up partnerships with provinces from an environment and climate change data perspective for AG emissions, et cetera. So, the question is the pandemic emphasized the need for data. How can all levels of government, federal provincial, territorial and municipal, partner, and collaborate to develop an interoperable and connected data landscape, in which data collected by any government entity is available and can be

shared when needed? Is this happening? What are the challenges, benefits, successes, and requirements to make this happen?

Catherine Luelo: Yeah, that's a big question. So, we're either talking about digital identity or a unicorn. I'm not really sure which is a more appropriate reference. It's a big problem statement. And as I said, digital idea, I think, is part of it, but Stephen, I'd like to pass to you, kick us off, and then I can maybe wrap us up and we can continue into the chat questions.

Stephen Burt: Yeah. So, I think... Thanks, Catherine, for throwing me under the bus. There's a couple pieces there available and shared as needed. And I think cloud is obviously part of that solution, right? We need to get into that space, and we've got a big, within defence having pushed a number of big rocks up the hill recently, the next big rock is data availability, data access. And that's, I mean, defence is a big place, it's a microcosm of some of the government of Canada challenges we face in this space. But that tendency to hold onto your data, because information is power and you want access to other peoples, but you don't necessarily want to share yours.

There's cultural aspects to that piece, but there is also a technology aspect in terms of where is the data residing and is it kept in a way that you can make it available as needed? But the other piece, and I think probably the biggest piece in data availability and data access, truthfully, at the government level is the policy space. And being able to come to grips with our oversight partners in places like the privacy commissioner's office, coming to groups with legislation, which needs to be updated around how we actually store it and the purposes for use in line with purposes for which it was collected and how narrowly we interpret that, in some cases.

We need to get the federal government to get out of its own way on some of this stuff, but to do it in a way that continues to foster trust. And that's, I, truthfully, in comparison to the last question where we talked about security, I come from the security community, I worry a lot about security, I have strong views on what we do in security space that is helpful versus what we do that is theatrical and doesn't provide any real value, but it's privacy that keeps me up at night. How do we actually find a frame for this that will allow citizens to trust that we are giving them value for their data, that they can control what we do with it and have a say in that? And yet, also use it in a way that makes it available exactly as you said, shared as needed, particularly both within the government and within the federal family, but also with other levels of government.

I think there's going to be a lot of tough conversations to be had. I know some of them have already been started by Catherine with colleagues in other places, where they have quite purposely sometimes erected barriers to this. But I feel like on some level, the privacy framework is intended to build trust in government by preventing us from doing what we need to do in some cases, which is a bit perverse, but that is a bit how the landscape feels at times. And we've got to get beyond that into a place where what we're doing is more visible and trusted, because it's delivering value. And I think

we've got some work to do there. Catherine, maybe I'll press it to you with that. And I may jump in later if there's something else in the back of my mind.

Catherine Luelo: Okay, perfect. A couple things. So, for me, it's about desire, technology and standards policy, et cetera. Now, maybe I'm going to start with the OBC. I've had a number of discussions with the commissioner since I've started, and I am really encouraged by those conversations in terms of wanting to have an open dialogue about the fact that horizontal data is necessary. And so, it's about how do we do that in a productive, thoughtful, safe, secure, reliable way. And so, to Stephen's point, the discussions that I've been having within the provinces and territories have been, again, very encouraging.

That there's BC, Ontario, Quebec, number of jurisdictions that are really moving along digital identity, but as a foundation for some of that data sharing in a trust framework, that is going to be, I think, a helpful first step. And I think what we experienced as a country around the vaccine credentials, as we were looking at using that as a federal credential to travel, underscores the fact that we have an opportunity to do different. It solved the problem, but we have an opportunity to do different. The tech stack doesn't scare me in this space. So, I'm just going to breeze past that one, because I think the smart tech folks, we can figure that out.

Just to build on Stephen's point, standards policy legislation- I'm observing a lot within my new role that that gets thrown down as a thing often, and it's not always the case, it's how we do things is what gets in the way. And when you really dig into the policy, oftentimes, there's more latitude than what you would think there is. Now, that's not saying go break policy, that's saying let's have really meaty, intelligent discussions around how we can have the policy support us and where we really do need to introduce policy changes, and we need to look at legislative changes. We know that those are going to be longer lead items, and at the end of the day, likely something we're going to need to look at.

Maybe last comment, I am finding this a highly congested arena. There is all sorts of industry people in this. So, whether it's tech companies, whether it's, we've got banks that are doing things around it. But you think about even healthcare, there's a whole bunch of people trying to look at how you are more efficient in supporting data in healthcare. You think about, from a CIO strategy council, which I co-chair, the standards council, DIAC. We need to get clear on who's doing what to whom, because it is super confusing and it's not helping advance the overall mission, which all these organizations, I think, are well intentioned to do. But until we get a bit of a coordinated approach on who's going to do what and how we're going to move together, I think we're going to continue to spin around in circles that are not productive.

But my thinking from a standards and policy perspective is that I agree with you, Stephen, there's going to be likely larger-scale things that need to happen, but I sure want to make sure my elbows are as far as they possibly can be in the existing policy suite that we've got, because there's a lot of things that we sometimes just think we

can't do. And this is how we've been done, and when I've double-clicked, sometimes with my teams on show me in the policy where it says that, it doesn't. It's just how things get done.

Stephen Burt: Yeah. And that is actually very helpful because you jogged exactly what it was that I was reaching for, but I had over there. The issue is less about policy. I think we've got a ton of policy flexibility. I think there are some things that need to be done in the legislative space, but the issue is actually oversight, right? It's that first scandal, that first thing that comes out where people go, "Oops, that might have been a mistake." And then, the practical, maybe small "p" policy practice that then springs up to avoid having that happen again, right? That tightening down of the controls from the oversight space as deputies and others say, "Well, let's make sure that doesn't happen again."

So, that's going to be, those are the tests that we're going to have to meet and meet in a way where we say, "Look, that shouldn't have happened. We're going to deal with the individuals and processes involved, but we're not going to do it by tightening the screws in a way that it constipates the whole system." And that's where, as a government, we, I think, have developed exactly what the congestion that Catherine is talking about, where we have developed a series of somewhat informal practices to avoid that next thing. And we've got to be a little bit tougher, I think, in our ability to accept that when you- to accept risk and to accept that sometimes those risks do actually eventuate. You need to be grown up about that.

Vidya Shankarnarayan: Thank you both. Wow. I mean, there's so much I can say, but this is your chance to actually jump in and respond to a number of questions from our participants and audience. And I want to, because we've been, the digital ID conversation, of course, I could be here listening into it for hours. But one of our audience members has an interesting question, which I think, shifts our conversation slightly, but still in the same, I would say, the same way is, how is the GC working with marginalized communities to reduce data biases and improve accessibility, including with data visualization? Who would like to jump in?

Catherine Luelo: You know what?

Vidya Shankarnarayan: Catherine.

Catherine Luelo: It's so funny, I was going to say, I know exactly the question that I want to go to, and it was that. So, I'm really actually super pleased that you picked that question, because the whole concept of bias is certainly top of mind for all of us right now, and accessibility. And I think that there is, it's a two-sided coin. There is such great opportunity in the data and the insights that we can glean from that to deliver better policies and programs and service, and all the things that we use data for.

There is an underbelly of it, where if not used responsibly or insightfully or adaptively, and in an inclusive way, can lead us to a path that does create bias and amplifies underserved, marginalized communities. So, from my perspective, AI is a

really interesting place to maybe focus on this. Because explainable AI and the whole concept of how you teach, and school and advance AI work is top of mind to me. And we've got, certainly, we've got policy vehicles. We have a directive on AI, we've got things within our policy suite that point us to this. But to me, the really underlying need of this is that you have to have a broad community that you're engaging with on a regular basis.

You have to constantly question whether you are- Bias is a difficult thing because sometimes, and likely, it's unconscious, you don't even know you have it. And you think about coding bias, if it's being coded by someone that looks a certain way, is educated a certain way and thinks about the world a certain way, does that exclude others? And we've seen that, facial recognition software, et cetera. So, for me, making sure we constantly have curiosity. And I think about, I'm going to use a silly analogy that might not translate, so forgive me. But when I find myself in a situation where we have a cyber issue going on, I assume everything is infected and bad until someone can prove the fact that is not in fact, the case.

When I think about data, I think about it the same way, is that we should assume that there is some level of bias in how we are analyzing data. Because we're humans and we're the ones that are doing the analysis, and that openness and that curiosity and the ability to bring different perspectives to that data is important. And I think, and this might be a contentious opinion, but I think we run, we have the opportunity on the good side of this to actually address bias through the way that we can objectively work with data in a different way than if we have humans, in some cases, doing the thing.

I hope for a world where those two things will become not even a conversation that we have to have, but the reality is we're not at that place right now. So, Stephen, I'll pass it over you to add comments. This is just a fascinating conversation to me, because with great power comes great responsibility. And as the keepers of the data, we have great power, and we should not ever underestimate the accountability we have in the space of being completely tuned to this as an ongoing risk. We're not going to ever solve this, I don't think.

Stephen Burt: Yeah. So, maybe two very brief comments, because I don't have a ton to add beyond what Catherine's already said there. I think that as we think about digital capabilities, I mean, digital is just another way of conceptualizing your business outcomes, using data and tech. We need to be very clear that there are going to be, for some disadvantaged, disenfranchised groups, a high-tech response is perhaps not the way to go, right? And you can meet other avenues. There are some things that are going to have to continue to be low tech, and that can be digital, too, right? The idea is that you serve the people, you meet the people where they are and serve them in the best way, the most suitable way for what they need.

The other piece I would add is just to say that in the data space, particularly, advanced analytics techniques and AI and things like that, bias is the point that the whole, what these things do is that they perpetuate a certain bias in order to be

predictive or in order to say, "Well, in these situations, these nine situations where this happened, this was the outcome, so that's probably what the outcome's going to be." So, you're building in bias. That's what an AI system does. The algorithm is predicting in a biased way what should happen given the factors that you're putting into it. So, it's got to be explainable, because you need to make sure it's the right kind of bias in order to

deliver that to the outcome you're looking for and isn't building in, making things worse in what it does.

Vidya Shankarnarayan: Wow. Thank you. Now, questions are pouring in. So, I think we'll have time for maybe two more questions. So, I'm going to jump to this one. I'm being a little selfish because digital ID is something that I'm extremely passionate about. And this question caught my attention is: how do we expect Canadians to trust digital ID issued by the government of Canada, any level of government, really, without being open and transparent about the data we would collect and share about them or about how policies are made that will affect them?

Catherine Luelo: Stephen, you want to take that one first? I have lots of opinions on this one, but perhaps you can weigh in first.

Stephen Burt: Very simply-

Catherine Luelo: This is like your job interview all over again, isn't it? It's very funny, we're doing it in front of a thousand people. Okay, tell me what you think.

Stephen Burt: As I recall, our first conversation, I spent a lot of time telling you all the mistakes I've made, so I'll try to avoid reprising that for the audience. Look, I think the simple answer to this question is that we can't expect Canadians to trust us or any level of government, unless we can explain away exactly these things. We need to show them what the value proposition is. What is it they're buying for sharing their data? We've got to give them a sense that they have, that it's their data, that they have control over it, and that they have an ability to have a say in what we're doing with it.

The interesting aspect of this question is about how policies are being made that will affect them. I think that we are- I worry about where we are in the misinformation age, in terms of how people trust policy-making exercises. That's a bigger question than data per se. I think that we're going to have to figure out how we reconnect trust into public institutions, but I think most of that has to do with transparency. And I think the answer to this question is, we have to be super open and transparent about how it is we're delivering these capabilities as we build them, or they will die in the cradle. We won't actually be able to get them out of the door.

Catherine Luelo: Yeah, Vidya. I actually would've answered it exactly the same way. We cannot expect Canadians, if we're not open and transparent- I, maybe just the add I would put on this is, and this is a number of conversations I've been having, including with the privacy commissioner is, we need to start to think about teaching our kids about

being a digital citizen the same way we teach them about math, and home ec, and wood shop. And I'm probably dating myself, because I don't even know if those are courses anymore, but we need to start having this to be a fundamental skill that we are raising citizens.

And I think about, I'm a mom of a 21 and a 23-year-old who live their life online. They post this, they tweet this, they TikTok that, and it's forever. And I think that part of, at the core of this question is, it's not only about us being transparent, that's a huge part of it, but it's the further accountability, I think, is the government to help Canadians participate in the digital economy in a way that they understand that their information is as much of an asset as their home, and that they should be mindful of what they do with that information. One of the things that I really thought was cool back, and this was a number of years ago, and I don't know if there's an equivalent program in Canada.

But in the US, they had, you remember Girl Guides, Brownies, Scouts, where you get the little patches? They had a program on cyber safeness where the kids could earn badges in these programs that you would, you'd earn badges because you could start a fire and you could, now, I'm totally dating myself. Snowy Owl many, many, many years ago, but that type of building capability so that people can participate in an economy that's data heavy. And that's just not in how they interact with the government, we live online, especially in the last two years. Whether that's in my job description or not, that is really important to me as a parent, that we do that right. And I hope that as data leaders in the government and data leaders in your community, that you make that important to you as well.

Vidya Shankarnarayan: Thank you, Katherine and Stephen. So, we are getting to the time to close this absolutely wonderful conversation. And I have to say, is that for me, not only did I have the privilege to be moderating this discussion, the takeaway for me, Catherine, is from you is really to start challenging the status quo, where we have those layers and layers that we've built up that actually causes a lot of confusion. When you spoke about the different, I mean, some policies, yes, of course we have policies, but policies to actually enable us to be innovative and transformative and not to actually focus on saying, "How can we say no to doing something?"

And Stephen, in your new role, as the CDO for Canada, as well as being part of Catherine's organization, I would say is, we are really lucky that Catherine has brought you to this role, because with your experience in GC, as well as within the data community, I think we have a very strong future ahead of us to move data and digital forward.

So, with that, I do want to say, thank you again, Catherine and Stephen, for taking the time. And now, I would like to close by passing the conversation back on to the organizers, and I would highly encourage everyone stay online to actually hear our closing remarks from today before you move on to your networking session at five o'clock. Thank you again, have a good afternoon, everyone.

Catherine Luelo: Merci. Thank you.

Stephen Burt: Thanks very much, Vidya.

[00:54:40 The video chat fades to CSPS logo and “canada.ca/school-ecole”.]

[00:54:48 The Government of Canada logo appears and fades to black.]