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• (1100)

[English]

The Vice-Chair (Raquel Dancho (Kildonan—St. Paul, CPC)): Good morning, everyone.

Welcome to meeting number 40 of the House of Commons Standing Committee on Industry and Technology.

I would remind you that if you are using your earpiece and it's plugged in but not on your ear, please make sure that you place it in front of you on the coaster to protect the health and well-being of our interpreters.

Pursuant to Standing Order 108(2) and the motion adopted on September 22, 2025, the committee is resuming its study of the opportunities, risks and regulation of artificial intelligence in Canada's strategic industries.

We'd like to welcome a number of guests.

As an individual, Mr. Sean Mullin, senior fellow, Munk School of Global Affairs and Public Policy, the University of Toronto, is with us. Welcome, Mr. Mullin.

From the Society of Composers, Authors and Music Publishers of Canada, we have Ms. Jennifer Brown, chief executive officer. Welcome.

From UrbanLogiq we have Mr. Michael Lee, chief strategy officer. Welcome to the industry committee.

As you know, you will each have up to five minutes for your opening round, after which we will proceed with questions.

Mr. Mullin, I will turn it over to you for five minutes. Take it away.

Sean Mullin (Senior Fellow, Munk School of Global Affairs and Public Policy, University of Toronto, As an Individual): Thank you, Madam Chair and members of the committee, for the invitation to appear today.

My name is Sean Mullin. I am a senior fellow at the Munk School of Global Affairs and Public Policy at the University of Toronto, where I co-lead the AI competitiveness project with my colleague and co-author Jaxson Kahn. Together, we recently released a report entitled "Sovereign by Design: Strategic Options for Canadian AI Sovereignty". A briefing note on this report has been submitted to members today.

The question before this committee sits at the centre of a difficult and strategic tension. Canada is a small, open economy and a mid-

dle power. Our prosperity and security depend on deep integration with global partners, in particular the United States. To date, that openness has largely been a source of strength, but with AI, integration also creates dependencies on foreign cloud infrastructure, advanced chips, foundation models and digital platforms. In this period of geopolitical rupture, those dependencies become riskier and can jeopardize Canadian sovereignty by creating channels for foreign leverage or coercion.

At the same time, failing to adopt AI is a sovereignty risk. A country that falls behind in AI adoption will become less productive, less competitive and more vulnerable. Therefore, the challenge is not to choose between adoption and sovereignty. It is to capture the benefits of AI while protecting Canadian data, jurisdiction, institutional capacity and economic autonomy.

Our report's central argument is that the goal of sovereign AI policy should be freedom from coercion, not isolation. For Canada, AI sovereignty cannot mean building an entirely domestic AI stack. No middle power can do that at frontier scale, but unmanaged dependency is also risky. It can leave Canada exposed to decisions made by foreign governments, foreign courts or foreign technology firms.

The policy objective therefore should be to structure Canada's dependencies in ways that preserve choice, reduce leverage and maintain the ability to act in the public interest. Viewed through this lens, AI sovereignty can be considered a spectrum, not a binary. Every step that reduces Canadian exposure to coercion or expands Canada's room to manoeuvre strengthens our sovereignty. This matters because it makes the policy challenge tractable. Canada does not need to solve every problem at once to make meaningful progress.

To identify where intervention matters most, our report maps the seven layers of the AI technology stack—from data to compute to the application layer—and assesses them against five dimensions of digital sovereignty: jurisdictional, operational, technological, societal and economic. The result is a vulnerability heat map that helps policy-makers see where the most serious risks are concentrated and sets priorities accordingly.

A key finding is that cloud infrastructure is Canada's most acute controllable vulnerability and, in our assessment, the highest priority area for federal action. Cloud is where policies like procurement reform, standards, Canadian ownership models, encryption controls, audit rights and pooled public sector demand can make a real difference.

Overall, we set out more than two dozen specific policy options across every layer of the stack. Our report does not present a single blueprint; rather, it presents a menu of strategic options that can be pursued at different speeds and in different combinations by different actors.

Canada's window for action also matters. As models continue to improve and AI adoption spreads across the economy, the infrastructure build-out over the next five to 10 years will dwarf today's capacity. Decisions made now about infrastructure, platforms, procurement and standards will harden into long-term commitments.

A final point is that interdependence with peer countries is not the same as dependency on a dominant power. Partnerships with like-minded middle powers can help Canada reduce vulnerability while maintaining shared access to advanced capabilities. Canada has meaningful strengths to build on: excellent researchers, abundant energy, a vibrant domestic tech sector, emerging sovereign infrastructure providers and democratic institutions worth protecting.

We believe that AI sovereignty is achievable for Canada, but it will require deliberate choices. The window for making these choices is now.

Thank you. I'd be pleased to elaborate on any specific recommendations in follow-up.

• (1105)

The Vice-Chair (Raquel Dancho): Thank you, Mr. Mullin.

We'll go over to you, Ms. Brown.

Jennifer Brown (Chief Executive Officer, Society of Composers, Authors and Music Publishers of Canada): Good morning, Chair and members of the committee. My name is Jennifer Brown, and I am the CEO of SOCAN.

SOCAN represents songwriters, composers and music publishers. We collect licence fees for the public performance of virtually all musical works in Canada and for the reproduction of music. In turn, we distribute royalties to more than 200,000 members and to the millions of rights holders we represent through agreements with international societies. In 2025, SOCAN collected \$587 million in licence fees.

Culture is an economic driver, contributing \$65 billion to the Canadian economy in 2024. Canada is the third-largest exporter of music in the world, after the United Kingdom and the United States.

There is an opportunity for Canadian music to continue to thrive alongside AI. However, most AI companies are not paying for music. Instead, songwriters, composers and music publishers are currently powering advances in AI models without sharing in the economic benefits. Even worse, the resulting AI models can output vast numbers of complete songs in response to single prompts, and

this AI-generated music can potentially replace the work of Canadian creators in the marketplace.

Major digital music services like Apple and Deezer report that more than one-third of the music uploaded to their services these days is fully AI-generated. That means they're being flooded with millions of AI-generated tracks every month. That poses an existential threat for our members.

A global study conducted in late 2024 estimates that under current conditions, up to 24% of music creators' revenues are at risk of disappearing because of AI by 2028. The possibility of any Canadian industry losing up to one-quarter of its revenues in the next two years should cause national alarm. However, that dire prediction is based on current market conditions.

We have the opportunity to change those conditions right now. The use of high-quality human-created music has been called essential to developing AI models, and we can recognize that value through fair compensation to creators and the companies that invest in them. We must focus on an approach that not only values human authorship but also grows the economic impact of Canada's cultural industries rather than shrinking them. Making clear the rejection of a text and data mining—or TDM—exception and establishing effective transparency obligations on training and outputs are essential conditions for the emergence of a functional licensing market.

Let me explain. First, Canada needs to take a strong stance against a text and data mining exception. AI companies are advocating for broad exceptions that would permit them to exploit copyright-protected works. The narrative that innovation and copyright cannot coexist is simply untrue. What is true is that stealing is not innovation. Earlier this year, SOCAN launched a nationwide letter-writing campaign against a TDM exception, obtaining support from almost 9,000 concerned Canadians and demonstrating consensus that the government must not legitimize the theft of creative works.

Internationally, both the Australian and the U.K. governments have publicly decided against implementing a TDM exception. Canada must take a similar approach and affirm that no new or modified copyright exceptions for text and data mining will be considered.

Second, Canada must establish effective transparency obligations on training and outputs. AI companies have simply helped themselves to music, scraping the Internet to train their systems. They must be required to disclose which copyright-protected works have been ingested and stored in their training datasets. It's also vital for AI companies to ensure that the outputs of their systems are labelled as "AI-generated", clearly distinguishing them from the works of human creators. The labelling of AI outputs will allow the public to make informed choices about the type of music they consume.

SOCAN has been licensing new technologies for over 100 years. This is what we do. Every year, SOCAN licenses billions of individual uses of music by tens of thousands of businesses in Canada, and we collect more than half a billion dollars in royalties and distribute that money globally to millions of songwriters, composers and music publishers.

The challenges presented by AI are not unique. SOCAN is committed to making sure that music creators share in the value created both from the training of the AI systems and from the musical output they generate.

Thank you.

• (1110)

The Vice-Chair (Raquel Dancho): Thank you very much, Ms. Brown.

We'll go over to Mr. Lee for five minutes.

Michael Lee (Chief Strategy Officer, UrbanLogiq): Good morning, Madam Chair and members of the committee. Thank you for the opportunity to appear.

My name is Michael Lee. I am the chief strategy officer of UrbanLogiq. UrbanLogiq is a company headquartered in Vancouver with Canadian ownership. We have deployed operational AI decision systems in municipalities, provincial and state ministries, emergency management agencies, and transportation and transit agencies across North America. I appear before this committee to share what a decade of operational deployments for governments by UrbanLogiq has taught us about the conditions under which AI generally improves government decisions and outcomes.

This committee has devoted significant time to the risks of frontier AI with autonomous agents. That scrutiny is certainly warranted, but it risks creating a second, quieter gap: treating all AI as equivalent and allowing legitimate concern about frontier systems to crowd out investment in the responsible use of AI, which is already delivering measurable public benefits. This use is machine and deep learning on structured datasets, with crash records, traffic counts, land use records and emergency incident histories, for example, in order to surface analysis for human decision-makers, who retain full authority over every consequential action.

Three things are true in every deployment by UrbanLogiq of solutions for government agencies.

First, the most valuable work is integrating the data governments already hold, not building AI models. The first question in any AI procurement should not be "What will it predict?", but rather "What will it take to get our data ready?"

Second, successful deployments are those where staff can trace an insight into their inputs and where officials can defend a decision in a public meeting. Where deployments have stalled, the cause has rarely been the AI. More often, the government was not positioned to act, or citizens held fears that did not reflect what the system was doing. An audit trail is the mechanism through which AI becomes publicly sustainable and accountable.

Third, every deployment has demonstrated augmentation and results. For example, in B.C., land use review across federal, provin-

cial, indigenous and municipal jurisdictions on one auditable platform compresses timelines from months to minutes. In Edmonton, planners move from static reports to dynamic scenario analyses. In San Jose, infrastructure investments are evaluated across traffic, equity, emissions and economic access before decisions are made, replacing months of consultant studies in minutes. In Minnesota, machine learning on incident data, building characteristics, weather and demographics has shifted the fire department from reactive response to predictive action.

These outcomes are not incidental. Decisions about land use, emergency response and infrastructure investments are decisions that define whether communities trust their governments. Accountability with a documented, traceable record is what makes them defensible.

These tools change what is possible. Our recommendations to this committee reflect what field experience has demonstrated as necessary in order to enable responsible, effective AI adoption in government.

Let me highlight four of them. One, invest in data integration before AI model investment. Two, mandatory auditability standards with immutable audit trails, model output lineage and explainability requirements should be procurement criteria. Three, require workforce plans with phased rollouts as a condition of government AI contracts. Four, mandate structural AI governance, including risk-calibrated controls, as a condition of government AI contracts.

The evidence is already in the field: a fire chief acting on risk data before a fire happens, a planner evaluating a decade of infrastructure decisions in an afternoon and a land administrator assessing approvals across jurisdictions in minutes rather than months. That is not what AI might do. It is what responsible AI is doing right now.

We ask this committee to give equal attention to the cost of moving too slowly. Canada needs a compliance framework that allows it to move confidently with AI that is proven, governed and ready, while maintaining appropriate caution around systems that are not. That distinction is the most important one the committee can draw.

Thank you.

• (1115)

The Vice-Chair (Raquel Dancho): Thank you very much, Mr. Lee.

I'll now open the floor to questions, starting with Mr. Falk for six minutes.

Ted Falk (Provencher, CPC): Thank you, Madam Chair.

Thank you to all of our witnesses for coming to committee today and providing your testimony. I'm sure it's going to be a very interesting hour that we get to spend with you.

Mr. Mullin, I would like to begin with you. You mentioned the word "sovereignty" several times in your presentation, and you've talked about that in some of your writings. Can you explain a little further what you mean by sovereignty?

Sean Mullin: I'm happy to. Thank you for the question.

This was a key issue that we grappled with when my colleague and I set out to write this paper. Sovereignty is a very general concept. It has many different meanings in different contexts.

For the purposes of AI, we ended up looking through the literature on digital sovereignty, and we essentially landed on what we consider to be a workable definition for this space, which is that what we want to achieve with sovereignty here in Canada—at least our advice—is freedom from coercion. It's freedom from letting a foreign power or foreign country use vulnerabilities or dependencies in our AI technological stack against Canada.

We admit that that's maybe a bit different from the more formal, binary way of thinking about sovereignty under international law. When we applied our lens for where these sovereign vulnerabilities are, we applied five different dimensions, essentially, through the lens. Those are technological sovereignty, economic sovereignty, operational sovereignty, societal sovereignty and jurisdictional sovereignty.

I'm happy to elaborate more on each one of those five. They're all different lenses where we think Canada could be vulnerable. Indeed, any country could be vulnerable. We used those tests to essentially develop our recommendations in the report.

Ted Falk: Would those be the layers that you talked about, or is that something different?

Sean Mullin: There are the layers of the tech stack, which are things like data, physical hardware, chips, cloud compute and foundation AI models, right down to the application layer. Those would be the layers. The second dimension of our analysis was the five dimensions of sovereignty. There's a heat map in our report that has different boxes, seven by five, and that's where we look to see where Canada's most vulnerable areas are and which areas are less vulnerable.

Ted Falk: You talked about data centres or cloud storing. How critical is it for Canada to have its own data centres?

Sean Mullin: We think this is very important, but our advice is to approach it in a tiered way. It doesn't mean that every type of compute in Canada needs to be on a sovereign data centre. An approach we recommend is to have different tiers of sensitivity in terms of the operations. National security would be at the top. The

second would be sensitive or personal data. The third would be general business data.

We have different recommendations. We think the most secure or the most sovereign should be at the top of that pyramid, where any type of interruption of national security or critical government services could be used to compromise Canada. That's where sovereignty matters the most. Then as you go down, our recommendation for, say, the general business community is that we should let market conditions dictate how sovereign a particular company should want to be. There are companies—

• (1120)

Ted Falk: I would like to ask a few more questions, so I will cut you off at that point. You may have an opportunity to expand on that.

Ms. Brown, I'd like to ask you some questions.

I've thought a lot about the whole music industry and the space that you're operating in. It's interesting. Some time ago, somebody showed me a song that they had developed by giving it certain parameters and certain genres. It's actually quite amazing what AI can do.

How do we restrict AI from accessing copyrighted, protected material? Is that even possible?

Jennifer Brown: Unfortunately, we didn't get the opportunity to ask that question, quite honestly, because the AI companies just took the copyrighted materials. They did not ask for permission. They did not seek any consent from anybody. They just used it for their training materials. Now we're doing a bit of catch-up.

For the most part, the creators themselves are not afraid of tech. They are innovators themselves. They want to use AI as a tool, but they also want basic respect. They're saying, "You took my life's work and used it to train your model. Now you're using it to output things for financial benefit and I'm not sharing in that." Unfortunately—

Ted Falk: AI is so good and so sophisticated. How do you know when they've pirated somebody's material?

Jennifer Brown: That is another good question, and that's why I'm asking for transparency. Not only did they steal something, but they didn't tell us what they took, and the labelling on the output.... We are actively looking at that now. There are things in which you can see a substantial copy in the output. We know that the works are in there.

There are different things. We believe that with the transparency of what went in and the labelling of what went out, there could be a chance to look at the attribution of what comes out of the platform.

Ted Falk: Do you think AI models should have restrictions put on them as to where they access their data?

Jennifer Brown: Yes.

The Vice-Chair (Raquel Dancho): Thank you very much.

We're going over to Mr. Ma for six minutes, please.

Michael Ma (Markham—Unionville, Lib.): Thank you, Chair.

Welcome, witnesses. Thank you for being here today.

My first question is for Mr. Mullin.

You know that the employment effects remain uncertain but will likely be consequential in terms of worker displacement. I've worked in the technology industry for over 30 years, and it is often the case that new roles emerge to complement emerging technologies once they are mature.

Will AI follow similar models of impact on the workforce as previous tech revolutions, or is it different this time?

Sean Mullin: This is the million-dollar question out there in terms of the broader impact on the economy.

What I know from looking at the most recent emerging literature in this space—there are quite a few economists doing work on this—is that we've only started to see a little bit of an impact on labour markets, at least in the North American context. There's a little evidence right now that entry-level workers are potentially the ones being most impacted. This was from a study that came out of Stanford last year looking at the U.S. economy.

To look at your broader question, look at previous historical trends of technology. What always gets underestimated is what gets created by a new technology. I'm more of an optimist at heart when it comes to the capacity of humans to invent new demands and new ideas from technology. In the long run, I think we will find ways to employ everyone and to make sure that this technology is being utilized, but we need to be very careful about that transition and particularly people who might be disrupted by it happening too fast.

Michael Ma: Certainly, in my early days in Korea, they talked about going to a paperless society, but here we are.

I have a similar question for Mr. Lee.

You've mentioned that AI has already achieved benefits. Do you believe that AI is expanding productivity and capacity?

Michael Lee: Yes. What we see with government agencies.... I'm also mindful of the workforce transition, because that is disruptive, certainly, for new technology adoption. The Government of Canada, for example, has significant data pools and sources. A lot of that is not on the Internet. It is the government's data.

To an extent, we're able to organize that data in better ways to make it more useful and to break down the data silos among government departments. When you're planning infrastructure or addressing indigenous communities' concerns or environmental permitting-type considerations, that data should be combined. That would provide government decision-makers at all levels a better opportunity to make the evaluation faster and not rely on large consultant reports.

Put the tools in the hands of the civil service. This takes a transition, certainly, and can be done responsibly through testing and validation. That will make people in government able to use these tools in a way that not only meets the complex challenges of climate change and the complex geopolitical challenges of getting projects built faster, but also serves vulnerable communities. In our discussions with government ministries, even here in Ottawa for the last number of months, we see many opportunities where this can make a difference.

• (1125)

Michael Ma: Thank you, Mr. Lee.

I'm going back to Mr. Mullin.

In March 2026, you co-wrote a report entitled "Sovereign by Design: Strategic Options for Canadian AI Sovereignty", alongside your colleague Jaxson Khan at the Munk School of Global Affairs and Public Policy. In the report, you argue in favour of the importance of AI sovereignty, especially in the context of the changing world order and trade threats by the United States.

What do you see as some of the largest vulnerabilities if Canada does not act now with regard to digital and AI sovereignty?

Sean Mullin: Some of the major findings of the report in terms of the particular layers of the technology stack are.... As I talked about, the cloud services side is very vulnerable. We're also quite vulnerable on chip supply. Almost all of the advanced chips are not manufactured here in Canada. There are a number of other medium-level exposures as well.

I think the overall notion that we wanted to get across is that these decisions about this infrastructure build-out and these technologies are being made right now. It's a historical build-out in the United States and across the world. The risk is that we lock into a technology that we don't control.

Right now, we have an ally that is looking for ways to use vulnerabilities to exploit us for other reasons. It would seem that we don't want Canada to be more exposed and more vulnerable to what may arguably be the most important tech stack in the world.

The Vice-Chair (Raquel Dancho): Thank you very much.

[Translation]

Mr. Ste-Marie, the floor is yours for six minutes.

Gabriel Ste-Marie (Joliette—Manawan, BQ): Thank you, Madam Chair.

First, I'd like to thank the three witnesses for being here. Again, these are content-rich presentations. We're learning a great deal.

My questions will be for Ms. Brown, from the Society of Composers, Authors and Music Publishers of Canada, or SOCAN.

Before I go any further, Madam Chair, allow me to greet the colleagues who are joining us today, such as Mr. McKinnon. I'd also like to say that it's great to see you in the chair today. Thank you.

Ms. Brown, as you pointed out, SOCAN does very important work for artists across Canada. The Coalition for the Diversity of Cultural Expressions has made five requests regarding the development of a legislative framework on generative artificial intelligence, and they overlap with what you have told us, so I'd like to hear your thoughts on them.

Here is the first request:

Ensure that the Copyright Act is not modified through an exception permitting Text and Data Mining (TDM) or any other exception allowing technology developers or users to use protected works, sound recordings, and performers' performances to train generative AI systems without authorization or compensation.

You pointed that out to us. You also mentioned the examples of Australia and the United Kingdom regarding this issue, if I understood correctly.

Can you explain that to us again and confirm that you're in favour of this request?

• (1130)

[English]

Jennifer Brown: I do confirm that. We are greatly aligned with the CDCE, of course, as a member organization there. They're doing great work.

There has been lobbying by the AI tech companies around the world, which are asking for this exception in copyright acts around the world. What has happened so far is that the Australia and U.K. governments have put out there that there will not be an exception. They are not going to contemplate a copyright exception for the copying of all these works that has taken place for the training of the AI datasets. That's important for us, because we feel that now the AI companies don't have the loophole they're trying to get. That means they can come to the table, and we can talk about licensing and compensation for those works.

[Translation]

Gabriel Ste-Marie: Thank you very much.

If I understand correctly, generative artificial intelligence companies are currently scanning and stealing information. The legislative framework would prohibit that or require those that do it to provide compensation. Is that correct?

[English]

Jennifer Brown: Yes, the current Copyright Act would not allow for that exception. It would say that there are incentives for human creation that should take place, even with AI. It takes place with every other technology and every other broadcaster. People are paid when their works are used.

[Translation]

Gabriel Ste-Marie: Some generative artificial intelligence companies are publicly stating that if this legislative framework doesn't provide for this exception and they can no longer go and get the data in that way, they will no longer be able to produce their content.

What argument do you have to say to them?

[English]

Jennifer Brown: I would use the argument that we've heard this many times before. This is exactly what Spotify said in the early days. This is what radio said for years.

We've always been able to work hand in hand for them to grow and for them to compensate creators when they use that content in their growth. I don't think that copyright has ever stifled innovation. This is something that works hand in hand.

I can't take that argument seriously, because we've heard it too many times before and it's been disproved every time.

[Translation]

Gabriel Ste-Marie: Thank you very much.

Specialist Yoshua Bengio came to tell us that businesses didn't want regulations, but clear guidelines. That's along the same lines as what you just said.

Another request from the Coalition for the Diversity of Cultural Expressions is related to what you said: the obligation for companies developing generative AI systems to disclose the training data they use. From what I understand, there's no such obligation right now.

Is that technically possible? Are there any countries that have already implemented that?

[English]

Jennifer Brown: I believe it's technically possible. Every other country is requesting these transparency guidelines so that they know what has been used. The EU is currently on the second round of these transparency obligations because they're improving them to be more detailed.

I see no reason why this is not technologically possible to produce.

[Translation]

Gabriel Ste-Marie: Okay.

Along the same lines, the coalition is requesting—you mentioned this—the adoption of legislation to identify, for the benefit of the public, content generated purely by artificial intelligence. I have the impression that that's starting to catch on, but it hasn't been implemented yet.

Again, are there any countries that are ahead of Canada in this regard?

[English]

Jennifer Brown: We have examples from digital service providers that are seeking this as well. Apple has said they want to be able to show their users that the song is generative AI. There are companies out there saying...and can be used as a third party source, so we know it can be done.

The issue is that we shouldn't all have to pay for third party sources for this labelling. They themselves know what is generative AI. They should be putting that stamp, that label, on it when it is outputted so that everybody knows.

The Vice-Chair (Raquel Dancho): Thank you very much.

We'll go over to Ms. Borrelli for five minutes, please.

Kathy Borrelli (Windsor—Tecumseh—Lakeshore, CPC): Ms. Brown, my questions might be a bit repetitive, but I find this extremely interesting. I have two nephews who are budding creators, and I'm concerned for their well-being as well.

Should creators be able to opt out of having their work used for AI training? Should the Copyright Act make it clear that AI training requires an opt-in licence rather than an opt-out system?

• (1135)

Jennifer Brown: Opt-out and opt-in have definitely been talked about in other jurisdictions. In most cases, I would say that creators really don't favour opt-out. That's putting the onus on the creator when they haven't even been told that their work has been used. Now they're supposed to go through it and say, "Oh yes, my work has been used and now I'm going to put through some sort of request to take that out."

There should have been permission asked going in. I think that's important for creators in the future: that they have agency over when their works are being used.

Kathy Borrelli: Is an opt-out system unfair once a model has been trained?

Jennifer Brown: I don't think it's the most ideal system, and it has been rejected in other territories.

Kathy Borrelli: Some creator groups have argued that copyright protection should remain tied to human creativity and that fully AI-generated work should not receive copyright protection, because machines cannot exercise human skill and judgment.

To play devil's advocate in this scenario, do you think it would be unfair for people who train and work with AI to develop music? How should we clarify in the Copyright Act that copyright protects only works created by human authors and not works generated by AI?

Jennifer Brown: I think the stance of most creators and creator groups is that the Copyright Act already states that it's a human ability: that you have to have skill and judgment for copyright to exist and that skill and judgment are human actions. It's not a machine.

There is definitely the idea that generative AI is not falling within copyright. However, we still, as we spoke about earlier, have the issue that human-created works are in that output. That output is not the brainchild of a machine. It is derivative of other human cre-

ation, so we would like to see the compensation flow throughout input to output.

Kathy Borrelli: Would granting copyright protection to fully AI-generated works risk flooding the market with machine-made content?

Jennifer Brown: It is a very big question. I would like to take more time to think about that one because it's about who the owner of that copyright is. Are you putting the owner as the AI company, as the person who prompted it? Again, we believe the output there is still pieces of human-created work.

Kathy Borrelli: That's great. Thank you very much.

The Vice-Chair (Raquel Dancho): Thank you very much, Ms. Borrelli.

We'll go to Ms. Begum for five minutes, please.

Doly Begum (Scarborough Southwest, Lib.): Thank you very much, Chair.

Good morning, everyone. Thank you so much for your presentations.

I have so many questions, but I'm going to share my time with MP Ntumba because he has some questions as well.

One thing we've been hearing quite a bit about recently because of news from the U.S. is regarding the way that AI data centres are cooled—air cooling and liquid cooling—and the use of water.

Mr. Mullin, I want to go to you.

I believe that in Canada we have better standards in place. Do you find there are concerns there? What would you recommend? Of course, there are differences in terms of the evaporative and direct cooling methods. I know in my riding, we're seeing that happen as well, and people have complained about what that may look like because of the unknown. It could be water pressure. It could be water contamination.

I want to understand this. Could you speak a bit about it? Are there concerns, and what can we do to address them from the get-go?

Sean Mullin: We didn't go directly into the environmental considerations in our report, but it is something we're certainly alive to as we look at this topic.

One of the benefits, as you hinted at, of having sovereign AI capacity or, if it's not fully sovereign, having hyperscale data centres here in Canada to serve Canadian compute demand is that this will be subject to Canadian environmental laws and our standards. If you are taking for a given that there's going to be a build-out of demand as more and more Canadians adopt this technology, then you want to make sure that compute, as you trace it all the way back to the energy and environmental impacts, is as mitigated as possible. Not only water, but some of Canada's clean or renewable energy capacity is where we could really benefit from building out compute in a way that makes sense for Canada and Canadians.

• (1140)

Doly Begum: Thank you very much.

I'll quickly ask this of Ms. Brown. I think MP Falk actually talked about it as well. There is a famous example in South Asia, from I think a year or two ago, where a movie song from one of the legendary singers of the past was reintroduced—this is somebody who's no longer with us—and it broke people's hearts because they thought it was an old song somebody missed. It had millions of views. It was obviously monetized. To me, there's something so wrong there. It was almost nostalgic as well.

Where would you find that balance, that respect and that dignified way of doing something so the right people are benefiting? How can we do that?

Jennifer Brown: I think it's exactly what you said. It's about looking for respect.

We work on the composition side—so the songwriting, the creative side—but this also impacts the artists. I can't really speak to the artist you're speaking to, but there are definitely requests about names and likeness. That goes beyond music. That's personal. That's privacy. Making sure that words being put in their mouths by AI—things they would say—or a song being sung by somebody... These are things they would want their voice towards. I think the principle that remains true for all artistic elements is consent at the beginning to make sure that they're giving over the ability for this to be generated.

Doly Begum: Thank you very much.

Bienvenu-Olivier Ntumba (Mont-Saint-Bruno—L'Acadie, Lib.): Thank you.

[Translation]

Mr. Mullin, in which sector are Canadian artificial intelligence industries showing the most promise? Is it health care, advanced manufacturing or public administration?

What specific example demonstrates strong Canadian leadership and export potential?

[English]

The Vice-Chair (Raquel Dancho): Unfortunately, we have just 15 seconds, but go ahead.

Sean Mullin: Are you talking about the potential for AI?

[Translation]

Bienvenu-Olivier Ntumba: Yes.

[English]

The Vice-Chair (Raquel Dancho): I'm so sorry to cut you off, but we are out of time. Perhaps we can get to it in the next round. It's always a five-minute time slot.

Thank you very much.

We'll go to Monsieur Ste-Marie for two and a half minutes, please.

[Translation]

Gabriel Ste-Marie: Thank you, Madam Chair.

Ms. Brown, the Prime Minister announced that the artificial intelligence strategy would be unveiled next week.

Do you feel that the cultural sector has been sufficiently included, so far, in the discussions aimed at developing this strategy?

[English]

Jennifer Brown: The cultural industry was part of heritage and those conversations. I'm not sure exactly how much input the cultural industry had in this overall strategy. There were a couple of meetings, but I'm not sure. I guess we'll see in the strategy's output where the messaging landed.

[Translation]

Gabriel Ste-Marie: We're going to hear from Hon. Evan Solomon in committee next week. If the strategy is unveiled by then, we'll be able to ask him about it.

Can you explain to us what is being requested for the additional protocol to the 2005 Convention in the digital environment, that is, the protocol recommended by the Reflection Group on the diversity of cultural expressions in the digital environment?

[English]

Jennifer Brown: Really, where we've been at is the exact same request. All creative industries have said, "Please do not create an exception, and please put transparency first and foremost." We're using transparency as the first principle right now, because we need to know what's been used so we can act.

• (1145)

[Translation]

Gabriel Ste-Marie: Thank you very much.

I have a lot of questions, but I see that time is running out. Since I have 40 seconds left, I'll let Mr. Mullin answer the question from my colleague Mr. Ntumba.

[English]

Sean Mullin: One of the areas where there's a tremendous amount of potential for applying AI in Canada.... We tend to think of this on a sector basis. There's lots of opportunity in things like health care, our energy sector and financial services. There's also another way of thinking about it. The latest round of large language models has the potential to impact knowledge work as a horizontal consideration. That's a tremendous way of thinking about how to improve the productivity of a huge swath of the Canadian workforce. That could also include, obviously, the government and public sector workers.

[Translation]

The Vice-Chair (Raquel Dancho): Thank you.

[English]

We'll go back to Mr. Falk for five minutes, please.

Ted Falk: Thank you, Madam Chair.

Mr. Mullin, getting back to you, do you think that AI models should have restrictions placed on them?

Sean Mullin: There's an emerging debate as to how much we should regulate AI models. I think the completely unbounded and unrestricted approach is not responsible. We should be careful about stifling innovation in terms of how to put on the restrictions, particularly when we're talking about frontier models. We've heard in the news about things like Mythos. It has extraordinary capabilities. To have absolutely no restrictions or no types of regulations whatsoever would be irresponsible.

Ted Falk: What types of restrictions or regulations would you suggest?

Sean Mullin: You would want to have a balance between the ability to innovate and the ability to ensure that some of the most egregious harms that could come from these models are mitigated. That would be in areas like national security, personal privacy and catastrophic risk. There are many other experts out there who are much more familiar with the existential or catastrophic risk aspect of these AI models.

Ted Falk: You mentioned in your comments that we've had a good relationship in working with our friends to the south, but you also talked about friendly allies potentially coercing us. Can you square that hole for me a bit? What do you mean by all of that?

Sean Mullin: I'd just refer to what's been happening in the past 18 months with the administration of President Trump. Many of the policies and actions taken by that government are trying to secure leverage against Canada, including using the fentanyl tariffs as a way to extract leverage, so—

Ted Falk: Can you specifically, though, connected the dots to AI, where we've seen coercion there?

Sean Mullin: Our paper doesn't say that there's actual evidence in the AI space. The point is that if you increase your dependency on the United States and on U.S. tech companies, does that increase the risk that a lever could be used against us in the future? If you're running a data centre with national security-level service and the President says to shut it off as part of an acrimonious trade deal or a negotiation, I don't think Canada should put itself in that position. Avoiding being coerced is the point of our recommendations.

Ted Falk: What is your suggestion for avoiding that?

Sean Mullin: We've essentially gone through all the layers of the AI stack and have found different vulnerabilities. Our point is that anything you do with any one of these different vulnerabilities.... Some of them are worse than others, but you don't have to solve them all at the same time. You can work at mitigating exposure. On cloud, for example, building sovereign compute for the most highly sensitive national security is one way of making sure we don't get exposed to that type of vulnerability.

Ted Falk: During COVID, it was reported that our own military had launched propaganda campaigns against Canadian citizens with the use of AI. Is that something that you believe, sir, the government needs to put restrictions and parameters on?

• (1150)

Sean Mullin: That would go beyond just the use of AI. It would not be something—if that indeed happened—that we'd want the military or the government doing in any case. I would say that's not just an AI issue.

Ted Falk: These deepfakes and the replications that AI can do are fascinating and incredible. Should there not be safeguards that would prevent governments from using them against their own citizens and promoting any particular ideology?

Sean Mullin: Yes. When you get into particular instances of propaganda like deepfakes, that's where you'd want to ask what the law is in Canada. That should apply to Canadians, citizens and anybody in the sense that we should have a way of avoiding the misuse of that type of technology to do things like misleading citizens through deepfakes.

Ted Falk: There should be some types of regulations.

Sean Mullin: Indeed.

Ted Falk: Okay. Thanks.

The Vice-Chair (Raquel Dancho): Thank you very much.

We'll go over to Mr. Bains for five minutes, please.

Parm Bains (Richmond East—Steveston, Lib.): Thank you, Madam Chair.

Thank you to all of our guests for joining us today.

My first question is directed to Mr. Lee, from British Columbia.

We see how the world is becoming quite complicated, with significant uncertainties putting a strain on public safety and institutions not just in Canada, but globally. How can government identify the risks before they escalate and direct resources where they matter the most?

I ask you this because I know UrbanLogiq does a lot of work in different jurisdictions. Maybe you can provide some input there.

Michael Lee: In UrbanLogiq's deployments, I have seen the dynamic models we put forward enable the addressing of geohazard risk, for example. In the city of Edmonton, as I mentioned in my opening statement, we provided a dynamic scenario modelling device and platform for city planners to determine, with climate change impacts out to 2040 and beyond, where wildfire risks would be in order to ensure that when they're building in a built environment...where they should build housing. We recognize from the lessons of Lytton, Kelowna, Hinton and Jasper, and from the wildfire damage to public safety and housing, that government has data that it can map out and utilize in a more predictive, proactive form.

This is not about relying on static reports. We know that hazard, risk and vulnerability assessments and LCCAPs—local climate adaptation plans—are examples of government-required reports that need to be done at the municipal level. We also know that with national integrated emergency management systems, we need to integrate the various jurisdictions—federal, provincial, first nations and local—in an emergency-type situation. These are examples of where we can plan better, understand where evacuation routes might be and recognize where traffic congestion and critical infrastructure demands from wildfires, flooding or earthquakes might be. These are public safety risks.

I'd also like to say, to the many comments Mr. Mullin stated to this committee, that the Government of Canada clearly needs to be using these tools. In order to properly regulate the responsive use of AI, government needs to be utilizing these tools and adopting and adapting them in a responsible way. There are federal directives for the public service around algorithmic impact assessments in order for them to be used, so there are definite regulatory requirements already established. We can do more, though.

Parm Bains: Thank you for that.

You worked with the City of Coquitlam in British Columbia on a two-year trial to advance analytics and create real-world benefits. Can you outline some of the outcomes from that partnership?

• (1155)

Michael Lee: The City of Coquitlam, like the cities of Burnaby, Richmond, Surrey and Nanaimo, is a municipality in British Columbia that we work with. In that case, it was a pilot to look at community amenities. When you have a growing community, where do you best place your resources, as a decision-maker, mayor, council, or city planner, to ensure that there are park, school, traffic, housing and child care amenities for your community? That's an example of a kind of planning device. You're integrating the data in a planning way to understand where population growth is and what the needs of the community are.

This is the kind of decision-making support system we did for the City of San Jose. You can model out different community infrastructure amenity investments and recognize, in a key performance indicator kind of way, what makes for a great community and a healthy one.

Parm Bains: A lot of the questions we get about AI are around privacy and the protections people want for their data. What processes does UrbanLogiq utilize to protect data? Ultimately, the committee's role is to try to get recommendations put forward. Do you have recommendations for the government on protecting data?

The Vice-Chair (Raquel Dancho): Give a very brief response, please.

Parm Bains: Go very quickly.

Michael Lee: This relates to Canadian sovereignty. We are a purpose-built solution for government, with the highest, strictest privacy standards. That means having auditability standards, ensuring that we're tracking the lineage of where the data source goes, having access controls to the data, having encryption and ensuring that the data itself is kept with zero retention. These are examples of the kinds of mechanisms that can build out the responsible use of AI.

The Vice-Chair (Raquel Dancho): Thank you very much.

We have about two and a half minutes of committee time remaining. That's not quite enough time to equally distribute among all parties.

Colleagues, if you'll allow me to use the chair's prerogative, I want to ask one brief question of Ms. Brown so I can fully understand what she's saying.

In brief, all Canadian content from all of our artistic creators and others is being used, in essence, for free by AI models. They use your content to train, and there's no compensation for, recognition of or transparency in how that's being done. Is that accurate?

Jennifer Brown: That's correct, yes.

The Vice-Chair (Raquel Dancho): You're saying that there are other jurisdictions that require this transparency when your content is being used and require you to be compensated because of licensing fees. Is that correct?

Jennifer Brown: What I'm saying is that with transparency and having no exception, we believe we can have a market solution to license these AI platforms to make sure compensation is flowing to the creators. These are the same arguments happening in other countries, because AI platforms did this in every other country.

Through our relationships with other societies in those countries, we're able to share that information with this committee if you would like to see what's happening in other jurisdictions.

The Vice-Chair (Raquel Dancho): I feel the voice you brought to the table is one of the few in this space, so any further submissions you can provide to us and the analysts for review would be welcome. This is a very important piece. I think we'd all agree on that.

We welcome the submissions from all three of you. We appreciate your testimony today very much and wish you a wonderful rest of the day and safe travels. Thank you very much.

Colleagues, we will briefly suspend as we turn over, so now would be a good time to take a break. We'll resume discussions in camera.

[Proceedings continue in camera]

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