**Public Sector Future WWPS Podcast Series**

**Episode 68**

**Olivia Neal [host], Ima Okonny [guest]**

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**OLIVIA NEAL:** Hello and welcome to Public Sector Future. This is a show for anyone who cares about using digital approaches in the public sector to deliver better outcomes. I’m your host, Olivia Neal, and together we explore stories from around the world, where public servants have been successful using data, technology and digital approaches to deliver change.

I'm joined today by Ima Okonny. Ima is the Chief Data Officer at Employment and Social Development Canada, also known as ESDC. Ima leads work across the department of 40,000 people to better understand and use data to deliver services to Canadians, as well as to support policy development and reporting. We discuss the foundational data platform approaches, responsible use of AI, and how the team are taking advantage of new opportunities to build data literacy right across the organization.

**OLIVIA NEAL:** Ima, thank you so much for joining us today.

**IMA OKONNY:** Thank you for having me, Olivia.

**OLIVIA NEAL:** Well, I wonder if we could start by just sharing with our listeners a little bit of context on what your role is, and what’s the organization that you work for.

**IMA OKONNY:** So, right now, I work for Employment and Social Development Canada, and I’m the Assistant Deputy Minister and Chief Data Officer here. And my role basically spans the entire organization.

And what I will say is that, in summary, I do my best working across the organization to leverage data to really enhance services to all citizens, regardless of where they live in this country, from coast to coast, and really driving value out of data responsibly, ethically, and leveraging whatever technology we can to really enhance service delivery across this great country.

**OLIVIA NEAL:** And of course, that’s a very large span, both in terms of the number of employees, ESDC is a very large organization, and of course, the size of Canada as well.

**IMA OKONNY:** We do have a big population. The latest estimate said, we sat at about 40 million. This was the latest population estimates from Statistics Canada. And our geography is quite large. Like, we span from coast to coast to coast. And my organization has just under 40,000 employees.

So what that means is we need to consider, you know, the different segments of the population, urban, rural, and make sure that we’re really meeting people where they’re at and meeting those needs when they need it, whatever channel we’re delivering.

So to be able to do that, you really need to leverage data to understand the population, to understand the diversity in the population, to understand the geographical locations of where people are at, and really to understand the preferences people have in terms of how they want services delivered to them.

[03:11]

**OLIVIA NEAL:** And for you, yourself, when did data and the ethical use of data, when did these things become a passion for you?

**IMA OKONNY:** I mean, I would say right from the start of my career, because I first started working on data right at the beginning. I started about 24 years ago in public service. And I was very fortunate to work in an HR department, human resources department.

And I was really tasked with working on compensation. So we were basically leveraging data to make sure that compensation was being calculated properly for people, so things like are people getting their pensions, the correct pensions, were they getting their correct pay?

And as we did this, I worked with a talented group that really cared, to make sure that we were making these calculations correctly, because if these calculations were wrong, what it would mean is, you know, people would not be able to pay their bills, people would struggle in terms of the benefits they deserved, and people would not be able to get their needs met for their families.

So what that taught me was, you know, I needed to be very intentional. I needed to really put the people who would be impacted by the actions I was taking into consideration and understand the impacts, you know, the potential harmful impacts, the positive impacts, and the full spectrum implications of every decision that we made, you know, as we – we leverage data to make those calculations.

So that brought a lot home for me in terms of, you know, understanding those ethical implications and being very intentional about whatever I did.

[04:57]

**OLIVIA NEAL:** I love that combination of intentionality and impact, and being clear that data is not about numbers; it’s about people. I think that’s really important in this conversation. And you talked briefly about the breadth and scale of your organization. Of course, this organization has lots of government departments, who hold so much data, and there’s lots of different data projects going on. Could you share an example of a data project that’s been worked on that ESDC and how that has played out?

**IMA OKONNY:** Oh, Olivia, there’s so much going on. And I tell people that I’m very fortunate to work in this organization because we have the best mandate. Our mandate is really to build a stronger and inclusive Canada to make sure people get to the best outcomes.

So for me, one of the things that really stick in my mind as you asked that question is a project we did where we leveraged natural language processing to find vulnerable and at-risk Canadians, and really give them some of the benefits they deserve, so that we basically reduced a lot of the administrative burden on them. Instead of them having to come to us and apply, and fill out all these forms, we were able to leverage data, leverage natural language processing, and meet their needs in a very timely fashion.

So to me, that was one of the big impacts, projects that we worked on. And the beauty of it is that it followed all the protocols in terms of the privacy considerations, legislative considerations.

And we worked very closely with our program colleagues to make sure that everything we were doing was properly contextualized, and also very intentional in terms of looking at some of the potential risks. We mitigated risk to make sure that, you know, people would not be harmfully impacted by the tools we leverage to get this project on.

And it also opened our eyes to the potential of scaling some of this work in a way that would really yield concrete benefits to Canadians across the country.

[07:14]

**OLIVIA NEAL:** That’s a really great example of that impact that you were talking about, being intentional, following all the protocols, bringing in colleagues from different parts of the department, and leading to something which has that proactive impact for vulnerable Canadians. Were there any particular lessons that you learned from doing that?

**IMA OKONNY:** One of the things we learned was the importance of really contextualizing the problem we were trying to solve, and then also contextualizing the data and bringing in legal, you know, bringing in privacy from the conceptual phase.

By doing that, we were able to embed, you know, some of those defensive strategies right from the design phase, so that when we moved into the operational implementation, we didn’t have to really worry about some of that, because it was embedded from the start.

So one of the big lessons learned is that we need to really – again, you’ll hear that word intentionally – we need to intentionally embed a lot of the offensive and defensive strategies from the start. And that makes us go faster. You know, so the more we can ensure that we’ve built some of those foundational structures and the protocols in place from the start, we can move faster, and we can scale. So that was one of the big lessons we learned.

And we also had not anticipated the significance of that in terms of the literacy piece, too. So as we included people in the conceptual phase of the design and walking through the problem, what we found is it led to people’s data literacy increasing because they saw the challenges we’re trying to work through around, you know, things like data cleansing, data integration, understanding the business context of the data, and it exposed people to the what-it-takes story to get this right. So that was one of the unintended benefits of the whole initiative.

[09:19]

**OLIVIA NEAL:** That’s really interesting, because that sounds like a bit of a virtuous circle as well. So people get more exposed, they understand the new skills that they need. If they have the opportunity to build those skills, then they see other opportunities for more progress in the future. And you’re creating that uplift of people, and the excitement as well for people to get involved in new things.

**IMA OKONNY:** Exactly.

**OLIVIA NEAL:** And thinking about opportunities, how are you seeing technology or digital approaches open up new opportunities for you? I mean, you’ve mentioned you had a 24-year career focusing on data. Things have changed a lot during that time. Are there new ways within ESDC that you’re seeing technology open up opportunities?

**IMA OKONNY:** Yes, there are a lot of opportunities. I mean, technology will continue to evolve, as you know. Currently, there’s a lot of excitement over some of what we’ve seen in Generative AI.

And in my view, I think what would be very important is for us to really continue to learn and understand the needs of the client because whatever technology we leverage needs to be focused on, you know, really meeting the needs of the client and ensuring that in whatever we do, we’re inclusive of all the needs of the client wherever they sit, and wherever that gap is.

So I think it’s a continuous process of understanding the client, understanding that the population will continue to shift, and understanding that things like vulnerability are very dynamic; it shifts.

So the constant need to be aware of your client, understand the data, make sure you understand the demographic composition of the population, and then enable meeting those needs, enablement of the needs through technology, so technology becomes that vehicle where you’re really getting clients to the needs where they’re at, but at the same time, understanding the dynamism of the population, and that they will continue to shift.

So the need for that intentionality around how we design products, how we design tools around centering always around client needs, I think that’s the most important piece.

[11:34]

**OLIVIA NEAL:** Absolutely, always focusing on those needs first and foremost, and taking advantage of the tools as they evolve to help meet those.

And you mentioned excitement around Generative AI. Are there any examples of how you’re already thinking about using AI within your work, whether that be Generative AI or prior to that?

**IMA OKONNY:** Yes. I mean, we’ve leveraged AI in several ways. I talked about natural language processing. We’re also looking at a lot of research around some of the generative tools.

And one of the things that we really want to be mindful of is Canada is a bilingual country. So, you know, we speak French and English in Canada. It’s our official language.

So we want to make sure that as we’re looking at these tools and how we leverage them, we want to make sure that we’re not leaving anybody out.

So one of the things we’ve been working through is really looking at some of the guardrails, some of the mitigation strategies around how we treat text data and ensure that as we’re looking at synthesizing data with generative tools, language has been treated in a similar way, and we’re not disadvantaging any group of the population.

So definitely, we’ve looked at ways of classifying texts, like text classification. We’ve looked at things like OCR, you know, just to see how we can take text that’s written in forms, and then transform it into databases, and query those databases and get results that would speeding up processing. We’ve looked at things like enhancing efficiencies, looking at things like how we can leverage volumes and volumes of information using things like generative AI.

However, like I said, there’s also you know, the double-edged sword factor where we have to look at how we leverage these tools in a way that does not lead to harmful impact or, you know, leaving segments of the population behind because part of our mandate is that we leave nobody behind and we have to serve everybody.

So again, it will need a lot of intentionality in terms of us making sure that those guardrails are put in place, and we project the population, working closely with Statistics Canada, and understand the differences in the population and the foundational base of the population.

[14:05]

**OLIVIA NEAL:** And thinking about those guardrails and those approaches that you’ve been putting in place, of course it’s going to be so important that as AI tools do become more and more prevalent, and do bring useful opportunities, that they are trusted both within ESDC and then also by the public as well.

I wondered if you could say a little bit more about how you think about embedding responsible use of AI in the work that you do, and how that plays into practice.

**IMA OKONNY:** So one of the practical things that we’re doing, Olivia, is that we’re really building a solid data foundation platform. And what that means is we’re embedding a lot of the governance procedures into our data foundation, so things like data catalogs, you know, data link, a way to really audit some of this data, who is accessing the data. Do we have the right legislative pieces around this data? Do we have the right privacy protocols around this data?

So we’re embedding it into our infrastructure, and then as we’re leveraging this data in AI, we’re showing that some of those governance pieces flow through what we’re doing. So for example, we have analytical labs in our infrastructure that are monitored. We have audit procedures around them. And we’re also making sure that we’re building fairness models and fairness frameworks that really enable us to interrogate those models based on our population.

So a practical example is we have an indigenous population in Canada that’s quite diverse. And as we leverage the data, you know, to improve service and enhance service delivery, we want to make sure that our models are representative of the population. So we’ve actually built a model that can assess fairness and tell us if our tool is going to have potentially harmful impacts on the population.

So we go beyond some of the tools that the Treasury Board has put in place. So the Treasury Board of Canada has put in place a lot of powerful tools for us to assess and manage risk, you know, in terms of how we deploy AI in the organization.

But we’ve also taken an approach where we’re looking at some of the foundational data. Given that we’re serving the whole population, we want to make sure that as we’re leveraging data, we’ve looked at things like sound quality of the data. We’ve also looked at things like does the business context reflect the reality of the data we’re seeing. And does the interpretation of the policy intent, is it reflected in some of the results we’re seeing?

So we go beyond, you know, some of those tools and look at the contextualization piece, because we want to make sure that as we’re leveraging AI or whatever other tool for enhancing services, we’re doing it in a way that encompasses the reason behind our policy, the reason behind our programs. And at the end of the day, we want to make sure that the outcomes are aligned with really helping Canadians and getting them the services and the benefits that they deserve.

[17:22]

**OLIVIA NEAL:** That’s really powerful to really focus on that, that platform level, that data platform level, how the governance can be embedded, how it gets maybe automated sometimes as well with the tools that you have now, because that’s such a huge quantity of data, and it has such significant impacts on the way that programs, and as you say, how policy intent leads to outcomes being able to actually use data to understand whether that’s played through in the way that is intended.

Just wanted to move on slightly. How do you think about building data literacy within the department? This is a new set of skills for many people. Lots of people are keen to build their experience in this space. Is there an approach that you take to doing that?

**IMA OKONNY:** Yes. So practically, within my organization, we have built an enterprise data literacy program. And we really did this by working with stakeholders, both internally and externally to the organization.

So we have a great statistical agency in Canada, and we also worked with our statistical agency to roll out a bunch of programs within my organization.

We also did a benchmarking study where we surveyed people across the organization to understand the different data literacy levels. So it was very eye-opening. And based on that, we’ve been able to really focus on key areas, things like data management practices, and to really get people to understand not just the technical pieces around data, but why it’s important in the context of service delivery.

Because, for us to be able to get to those client needs, we need to understand the population. And to understand the population, we need to have data, and we need to understand some of those key ethical considerations around data.

So within my organization, we’ve done a lot of work on data literacy, some great work, and we continue to really push the envelope on that across all levels of the organization, so at the executive level, at the officer level, making sure that people understand what they really need to know about data, some of those key considerations.

**OLIVIA NEAL:** How do you find people respond to that? Are people welcoming of the opportunity to learn these new skills? Is it something that they recognize as a need?

**IMA OKONNY:** Yes. I’ve found there’s a lot of interest for people to understand what it means to them. So one of the challenges I’ve seen when people talk about data literacy, they come at it from a very technical perspective. And if you’re working in operations, or you’re working in policy, what you really want to know is how does this apply to me and my job in policy.

So I think when you contextualize data literacy, for the end user, the person who’s actually going to benefit from data literacy, it makes it easier for them to adopt and really learn. But the challenge is making sure that you contextualize it.

The other piece, and I think I talked about this, is bringing people along in your process. So as we developed, you know, this natural language processing initiative I told you about, we ensured that we brought people on the policy side and the program side together.

And then what that meant is, they were learning as we went along. They understood those key considerations and the key pieces that were essential around data and how it applied to them.

So I think that’s the important piece, to ensure that it’s properly contextualized to people’s realities and not just me sitting in the Chief Data Office.

[21:07]

**OLIVIA NEAL:** And so, as you think about what you’ve learned in this role, which is just huge, a really impactful role across 40,000 people, do you have any advice for leaders in other public sector organizations around the world as they’re looking at moving forward with either AI or other new technologies, on how they can think about embedding some of those responsible approaches that you talked about?

**IMA OKONNY:** I would say, again, it’s very important to center this around clients, you know, the people we serve. It is very important to understand the problem we’re trying to solve, the business problem. It is very important to be inclusive. So when I say inclusive, I mean all dimensions of inclusion, to include people who don’t typically sit in a chief data officer function, to include people in the policy side, in the legal side, in the privacy side, in the program side, in the operational side because that is how you understand the context, to make sure that whatever you’re doing is representative of the clients you serve, because there is no way that one person understands all these considerations.

So it is important to bring people in to have the conversations, to understand the context, and to take advantage, you know, of the art of the possible because there are opportunities for us to really shift how we do things and really get people to better outcomes. There’s so much opportunity. But for us to understand those opportunities, we need to understand the context we’re working in, and we need to find those leverage points that we can really push to have impact on people.

So as a whole, I would say the biggest lesson I’ve learned through these years is always keep it client centric, include by default, and keep pushing on those leverage points to enhance outcomes.

**OLIVIA NEAL:** You’re very plugged into lots of conversations. You clearly look outwards to understand what opportunities there are, both across Canada and in other places as well. Are there any other countries or provinces or states or anyone who you’re being particularly inspired by at the moment, who other people should go and check out and learn more about?

**IMA OKONNY:** In general, I’ve been very inspired by the countries that have really leveraged AI for good. So countries that have really taken an approach of saying things like, we have populations that are underserved. So how do we leverage AI, and how do we leverage some of these technologies to solve some of these systemic issues that we’ve dealt with for decades?

Olivia, we have research after research after research on people who have been systematically underserved. So could we, you know, leverage some of these technologies to finally solve some of these challenges?

And there are some countries I know, some organizations, especially in Europe, that have taken a look at this and have tackled some of this. So I think those are some of the countries that I’m looking at and those are the organizations that I’m looking at in terms of saying, you know, maybe we can turn this around and let us leverage technology to solve some of these wicked problems that we’ve been dealing with for many decades, and finally solve them and get people to better outcomes.

[24:38]

**OLIVIA NEAL:** I agree, and I think this is the fantastic thing about working in a public sector organization. Everybody is trying to solve some of the same problems. So the more that we can share some of those lessons and learn things from each other, the better it is.

**OLIVIA NEAL:** Thank you for sharing your lessons with us today. It’s been a really helpful and insightful conversation. Thank you.

**IMA OKONNY:** Thank you so much. This was fun.

[25:03]

**OLIVIA NEAL:** Thank you to our guest, Ima Okonny, and thank you to you for joining us today on Public Sector Future. If you're interested in finding out more digital transformation and data you can visit our website at aka.ms/publicsectorfuture. Please do send us your questions and feedback. You can find me on LinkedIn, or email us at ask-ps@microsoft.com. Thank you and see you next time.

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