

Foresight: The CPA Podcast

Season 5 Episode 5: Will generative AI replace the CPA?

Neil Morrison: Welcome to Foresight: The CPA Podcast. I'm Neil Morrison. As our digital era intertwines technology with our daily lives, the accounting profession is on a compelling and pivotal journey. Today, we dive into a sea of digital possibilities. We explore a reality where generative AI becomes an intrinsic participant in accounting. Imagine algorithms that analyze and generate financial scenarios, or picture technology that's crafting reports and offering strategic financial advice. It's not merely about task automation, it's about crafting a digital entity that both thinks and creates in accounting.

On this episode, we explore how this technological advancement could reshape accounting. The future might see a symbiotic relationship between human oversight and digital creativity. Integrating ethical considerations and accuracy checks is going to be crucial. Narratives about AI often swing between utopian and dystopian visions, and perhaps the truth resides somewhere in the middle. It's not all about replacing the human element, it's about evolving it. The accounting profession should be a key player, not just an observer. It must shape and direct the ethical and practical use of generative AI.

And before we jump into it, I should probably let you in on a secret. Everything I just said was written by ChatGPT. Did you notice? Did it sound strange? Do podcast producers maybe need to worry about being replaced? That's maybe for another podcast, but it maybe gives you a sense of just how far things have come in the years since ChatGPT was released. The rapid incursion of generative AI into all facets of our work lives is something Annie Veillet noticed very early on. Annie leads the national Intelligent Automation practice at PwC. She remembers the moment she realized we were at the beginning of a very big shift.

Annie Veillet: So, I think when I started to realize how big of a shift this was, because of course, coming from the world of AI, I always knew was going to be very much part of our future and be a technology that's going to impact our lives. But when I started having a lot of the non-techies in my organization asking me questions and using it, and generating content for their non-technical conversations using ChatGPT or other generative AI tools, that's where I started to be like, "Wow, it's here. It's finally here. It happened." So, that was really a wow moment for me.

Of course, having all of our clients as well want to have the conversations going in front of board members and really having a conversation more around the, "How do we do this?" And not, "Should we? Is it the right time? Is it right for us?" So, those are the two big wow moments. One, my colleagues using it that are non-techie, and then my clients all the way to the top really asking for more about the how, rather than the if.

Neil Morrison: Right, or whether we should or not?

Annie Veillet: Correct. So, it was really exciting and scary all at once because before it was baby steps and all of us passionate AI folks were really involved in most of the steps we were taking together. But now, all of a sudden, lots and lots of folks are taking three, four, five, six steps ahead without our kind of guardrails that we tend to put in place. So, it was a bit of a, "Okay, guys, just let me give you a quick

introduction to responsible AI. And here is some of the few guardrails you definitely want to put in place. Here's what it is. Here's what it's not." Very quickly just started to educate and now it's more of a citizen-led, if I could call it that, approach to moving forward with AI, where prior to this it was more of a AI push from the techies. So, that's the big shift what we've seen or I've seen and I've experienced.

Neil Morrison: Yeah, I want to get into some of those guardrails that we need to put in place. But first, did you say you saw generative AI coming before ChatGPT burst on the scene, that you knew it was in the works and it was coming down the road?

Annie Veillet: Absolutely. So, we had already deployed, and our clients just didn't know it was generative AI specifically, but we already had used that technique for some of the solutions to solve for business challenges. We have organizations that have folks that are close to retirement, entire teams that are close to retirement. And they were going to go from 10 people with a specialty down to two people in a very short period of time. So, we started using those techniques to augment the capacity of those teams. So, generating a first draft of maintenance plans, generating a first draft of quarterly reports for the finance team.

So, depending on who we were trying to help, we were already using these techniques. But, it was very much a AI, techie-driven conversation and saying, "Hey, I'm solving your business challenge," but they weren't necessarily aware of this specific technique we were using, which was generative AI. And now, everybody understands it's using deep learning, and what it is and what it's not. So, it's been really exciting to be able to have a broader conversation on the techniques we actually use to solve their problem. For them prior, it was just big AI.

Neil Morrison: Right. So, PwC began using generative AI, and it was using some versions of it before even ChatGPT came on the scene. I want to divide it up into, if this makes sense to you, into how it's being used internally and how it's being used externally. Does that make sense to do it that way?

Annie Veillet: Yes, absolutely.

Neil Morrison: Okay. So, let's just look at internally. How is it being used internally?

Annie Veillet: So, internally, at PwC we've always taken very much a citizen-led approach. So, where a few years ago, we've actually upskilled everybody, that includes all the consultants, all the accountants, all of the tax experts on using tools like Alteryx, which is a data preparation tool. We've upskilled everybody on using Power BI to do better visualization, or Tableau depending on the territory. But the point is we're not leaving anybody behind us. We're taking the exact same approach when it comes to generative AI, where we're upskilling everybody in the firm to do some prompt engineering. So, to be able to interact with these tools that are ChatGPT-like and be able to-

Neil Morrison: Can I just stop there?

Annie Veillet: Yes.

Neil Morrison: I keep hearing this term, prompt engineering. What's an example of prompt engineering?

Annie Veillet: So, prompt engineering is really, how do you structure the question that you're going to ask the machine for the content to be generated for you. So, you typically need to give it... If you ask a very broad question, so, "I'm doing a presentation on industry 4.0. Can you prepare some slides for me?" You didn't give it context, you didn't give it... So, it'll generate some content, but it's not going to be as good as if you say, "Hey, I'm meeting with 100 engineers. I have 10 minutes to speak on industry 4.0. Can you prepare a 10-slide deck for me that will cover the basics?"

So, you basically have to tell it what type of content you want. You can even add things like, "in the voice of..." Right? So, if you're generating reports for your own organization, you can give it historical reports and say, "In this voice," so they know how we typically write for your organization, "please generate this quarterly report for Q4 2023." So, it's really learning how to prompt the machines to generate the type of content you're looking for, and then to refine it. So, once you get that first draft, you can say, "Okay, now refine. And can you add a section on 3D printing" or whatever it is. So, you can refine your request and it keeps adding and refining so that the content that gets generated is really close to where you're going to be ready to use it.

Neil Morrison: And is that how it's being used now? Is it being used to prepare things or presentations with clients?

Annie Veillet: Absolutely. So, I would say right now... Well, let me take a step back. So, that's where our objective is. So, we are training right now what we call ChatPwC. Very surprising if you say... So, we are training our own large language model, but that takes some time. In the meantime, what we're doing is training our employees or everybody in the organization to use the available large language models, like OpenAI, to generate a portion of what they would typically spend hours doing. So, if you're looking to do some research, if you're meeting with a specialist in mining and you're not a mining expert, is there some other content that you can get for your analysis that's pre-prepared for you? And the short answer is yes, right? So, we are generating things using these tools to be as ready as we possibly can when we're having our client conversations. We have not indexed our own internal content to generate in the voice of PwC, but that's what we're working on right now. So, sooner rather than later, that's exactly what we'll be doing.

Neil Morrison: So, when you generate these things, ChatGPT is known to hallucinate and to sometimes make things up. So, if you're preparing a report using it, let's say, as you said, your example is on mining, how can you trust that what it's providing to you is something that's reliable or is true?

Annie Veillet: This is where the guardrails come in, and this is also how you can... The way you prompt to get the information, you can ask it to include the source links, where it used some of the information that inspired it to generate the content that it did. Then you need a human-in-the-loop layer where you're actually validating a lot of the information that you've gathered. It's still a lot faster than to randomly Google and get 100 different links and try to go in and out and figure out what's relevant and what's not. Typically, what you've got is very relevant, but you need that human in the loop that's going to do that additional validation. And if what you need is to be directionally right, like what are the big trends in mining? You can decide what's your risk appetite, how much validation you want to do. Of course, for

certain types of use cases, if you're actually producing numbers or statistics or things like that, then your validation process needs to be a lot more rigorous.

Neil Morrison: Right. What role do you think generative AI... Let's just speak about it right now, not in the future. What role does it currently play in the nuts and bolts of the CPA role?

Annie Veillet: Yeah, so right now, for certain parts of the CPA role where we're looking for trends, we're looking for things like that, it does accelerate the research for a lot of the folks working on those files. But we are working actively with regulators because there are parts of the audit process that cannot be yet enhanced, if I could say that, with generative AI techniques. We know there's potential for that and we are testing and piloting things that we can use to have those conversations with the regulators. But we are still bound by a set of processes and rules that are not only audited by ourselves, but are audited by third parties that come in and make sure that we are, following the CPA guardrails. So, that will need to evolve for the collaboration between humans and generative AI in the CPA world. But it's definitely, if you ask me, part of our future. It just needs time to adapt. Some piloting, some proving, some discussions. And some of it's going to be generative AI, some of it's going to be non-generative AI, so more AI that's explainable, but it will evolve.

Neil Morrison: So, if I understand that correctly, the way it's being used right now in the CPA role is more in that research background phase, that's where it's being deployed?

Annie Veillet: Correct. At this point, that's where there's still some flexibility because it's not part of the actual, let's say, "auditing process," or it's to give context. It's used to give additional context, additional knowledge to the business side of things, right? We're trying to be good business partners with the CPA role, and not only crunching numbers and producing reports. So, I think it is helping, certainly, in that support to the business and that enablement role. But from the production of financial reports or auditing of financial reports, it is absolutely still in conversation, so it's not approved by external bodies.

Neil Morrison: So, it's not being used? But you were saying you can imagine a time down the road where it begins to take on more of a financial analysis or even audit-type function?

Annie Veillet: Absolutely. Because there's no better tools to detect anomalies, to detect... And not just do sample testing, but to do at-large testing and really go in deep into the financial health of an organization. A human can't do all of it. We do it with samples. When it comes to these machines though, they can look at total health. Imagine having a total scan of your body from a health perspective. Well, it's the same thing from a financial health. Imagine having a full scan of everything that happened in your organization, and potential anomalies, and potential things that you need to look into. I think that's super powerful, but we need these techniques to be integrated into the approved processes for that to come to life.

Neil Morrison: There's already some of that going on. We've talked earlier in this season about the continuous audit. It's not using generative AI, but it is using AI to have that ongoing 100 per cent or 360 degree view of financial transactions.

Annie Veillet: Correct. And that's why I'm saying that it's started, and I think with the additional power of large language models, it's going to accelerate and increase. It is powerful. And yeah, continuous

monitoring, continuous suggestions of improvements that you can do, always with the financial health back of mind, and being a good business partner and everything that goes around it. So, it's starting, it will increase. And there's even been chats of, "Is the accounting profession at risk?" And I think for me, it's not at risk per se, but it needs to evolve significantly if it wants to survive because it is going to be very much an important part of the human teams, but it is also going to have to be executed in a very different manner.

Neil Morrison: I want to get into that and how it needs to evolve. First, I just want to make sure I understand something. So, right now we have AI systems that do the continuous audit and they flag anomalies. But the analysis of that anomaly and the interpretation of it and how it's explained is currently done entirely by a human. I guess what you're saying is generative AI could become a layer on top that does some of that. Here's what it means. Here's how you should think about it. Here's what it might mean for your business. That's the additional role that it might be able to bring on board?

Annie Veillet: Correct, right. It can give you some executive summaries, some insights, some things to consider as you're evaluating and using the data that you've been collecting or the reports that you've been producing, right? So, it is excellent at producing that, first draft, food for thought type of content, and not necessarily as good, because of that validation process that's required, to have those financial reports with the final numbers. Those would need different techniques. But the executive summary in front of it absolutely could be generated by generative AI.

Neil Morrison: So, let's talk about how the CPA role is going to have to... or is going to evolve and how CPAs are going to have to evolve. I wonder because it might make most sense to start with what new skills are they going to have to develop?

Annie Veillet: So, I think first and foremost, we touched on that prompt engineering. And it may sound very scary. You don't need an engineering degree to do prompt engineering. It really means how do I get very good at asking these machines the right questions and the right context to get the type of information that I need? How do I also create these prompts or these requests in a way that I'm not injecting biases into my questions, so I'm going to get basically the answer I specifically asked to get? So, asking more open questions, how do I ask the content to get generated, but with enough links for me to be able to validate some of that content? So, it's all about structuring the interactions with these machines. That's what prompt engineering is, right? It's not highly mathematical.

Neil Morrison: You're not going in and coding?

Annie Veillet: No, it's not coding. It's not highly mathematical either. It's really just understanding how to interact with these machines to have really strong, healthy outputs.

Neil Morrison: Right. If we think of, as we just talked about, if generative AI moves into the interpretation and the analysis part of the CPA role. I have to say, that starts to feel like it's squeezing out some of what a CPA brings. Can you imagine a time where generative AI replaces the CPA?

Annie Veillet: I've heard some speculate on that, and I was at an event last week actually with a group of CFOs. And one of those CFOs was very bold saying, "Yep, the accountant as we know it today, certainly

won't have a place tomorrow." I think it goes, more as an evolution than as a complete replacement. There are still human knowledge, innovation, there's some creativity that I know we're not necessarily typically linking to accountants, but I think there's room still to evolve and to really push this profession to the next level. So, personally, I don't believe there's going to be no need for accountants, but, I absolutely think this is a great opportunity for them to get to do a lot more analysis, be creative, think through what different types of interactions can I have for the business? How can I be a good business partner? How can I bring analysis that they didn't necessarily have before, using these tools as my collaborators, not as my complete replacement? It's a collaboration for me.

Neil Morrison: Right. I heard in the medical context where AI is coming into medicine, I heard one person say, "AI will not replace physicians, but physicians who use AI will replace physicians who don't." And it sounds a bit like that's what you are saying here when it comes to CPAs.

Annie Veillet: Absolutely. If you are not evolving and learning how to work with these tools, you'll be left behind, right? It's as simple as that. There is no way a human can be as efficient for some of the activities that the current CPA roles includes than these machines. So, if we know the humans cannot beat the machines for certain parts of their current activities, we need to think through, "Okay, how do I collaborate now with the machine that they've taken care of the data prep, the sampling, the data analysis?" A number of activities handled by these new colleagues of ours, if we would call it that, these machines, now that leaves room for me to do a certain amount of analysis that I didn't necessarily have time to do before. Have additional conversations with the business, have additional insights that I'm producing from all of this information that got produced. So, if you're one of these accountants or CPAs that decided not to collaborate, you will be left behind. There's no doubt in my mind.

Neil Morrison: Yeah, we are living through interesting times here. I feel like I should have you back. We should have you back in, I don't know, two years and things will be completely different from where they are right now.

Annie Veillet: Yes, they will be. Every two months, I feel like we're already seeing some big changes.

Neil Morrison: I know. It's moving so quickly.

Annie Veillet: It's very exciting.

Neil Morrison: Yeah. Thank you so much for talking to me. I really appreciate it.

Annie Veillet: Thank you so much.

Neil Morrison: Annie Veillet is the National Intelligent Automation practice leader at PwC Canada.

On our next episode we will be digging into the updates surrounding the ISSB's new sustainability standards. Shreya Verma Mair is a senior associate at ESG Global Advisors. She explains why the new requirement has the potential to be an important emerging issue.

Shreya Verma Mair: Traditionally or historically, the way that sustainability information has been reported on has been through standalone reports like a corporate sustainability report and the finance function has worked separately from the function that typically prepares this report. And so financial reports have typically been published in a very different timing than a sustainability report. And now panic is coming from how that information needs to be integrated within the financial reports and at the same time because that is a requirement from the ISSB's published standards.

Neil Morrison: That's Shreya Verma Mair from ESG Global Advisors speaking on our next episode.

And that's it for this episode of Foresight: The CPA Podcast.

If you like what you heard, please give us a five-star rating or a review wherever you get your podcasts, and share it through your networks. It really helps other people to find us. Foresight is produced for CPA Canada by PodCraft Productions. And please note, the views expressed by our guests are theirs alone and do not necessarily reflect the views of CPA Canada. Thanks so much for listening. I'm Neil Morrison.

Disclaimer: The views and opinions expressed in this podcast are those of the guest and do not necessarily reflect that of CPA Canada.