

Dominic Delmolino:	The Exploring AI in Government podcast is brought to you by Accenture Federal Services and produced by Government Executive Media Group's Studio 2G. Accenture Federal Services combines the power of artificial intelligence, automation, and advanced analytics with deep client, industry, and technology expertise to help agencies reimagine how they achieve their mission, serve citizens, and manage their organization. Learn what applied intelligence can do for your agency at "Accenture-dot-com-slash-federal-AI."
Intro Music	[Intro Music]
Delmolino:	Hello and welcome to another edition of Exploring AI in Government, a podcast series dedicated to interviewing leading global minds in the artificial intelligence ecosystem and getting at the insights that drive adoption across key industries and the federal government. I'm your host, Dominic Delmolino, chief technology officer for Accenture Federal Services and I am here today with our guest analyst, Kathleen Walch — AI and Machine Learning expert, and Managing Partner at Cognilytica.
Kathleen Walch:	Today we'll be exploring how intelligent automation can be used within the federal government. Joining us are Gisele Holden of the National Science Foundation and Craig Fischer of the Bureau of Fiscal Service. What makes this such an interesting topic is that it's a business technology workforce and policy discussion all in one.
Delmolino:	Let me start by introducing Gisele Holden of the National Science Foundation. Gisele serves as the chief of the financial systems branch overseeing NSF's financial management systems. In this capacity, she's also the program manager for the I-track program, a multimillion-dollar modernization initiative. She was recognized with this prestigious FED100 award for the on time on budget implementation of this new cloud-based finance platform. Gisele, welcome to our show. Are there some other things you'd like to share with our listeners?
Gisele Holden:	I think one of the keys to the success of the initiative is that we were able to procure leadership at the highest levels' support in terms of approving funding. The sponsor, the CFO was a staunch supporter, very hands on, very visible. And so, this really was an agency wide initiative: uh, strong partnership with our CIO, organization between finance and IT, and cleaning up our data. We cleaned up our data several years before we even purchased a system. And that is something that I strongly encourage others embarking on a modernization of their financial system, to clean up your data. And not just clean up the data, but also you want to bring over the least amount of data as possible. Particularly if you're moving from a legacy system to a COTS solution. The data structures are so very, very, very different. So, our sponsor

	<p>said whatever we do, we will not customize the system, we will change business processes. And so, because of that we needed to have a strong and effective change management strategy to take the agency through the massive change that they were going to go through. It was a success, but I truly have to say that, um, I was very fortunate to be the project manager, but it could not have happened without a strong team. And you have to have that, and you have to have the buy in at the top or it will not be successful.</p>
Walch:	<p>Yeah, that's really important because a lot of people want to start new projects and initiatives. And this was a huge undertaking. And if you don't have buy in from the top and it doesn't trickle down, it's just not going to work. There'll be a lot of pushback. A lot of resistance. There always, always is challenges and roadblocks. And if the top does not believe in it, then you're not gonna go anywhere. [Absolutely.] And you had touched upon data and how you're moving from legacy systems to newer systems and you know, things don't transition and flow as much as you'd always like. So robotic process automation or RPA for short is getting a lot of attention lately within the federal government and also for, um, companies as well. And I know that this is being adopted for a variety of uses. So, for our listeners that may not be familiar with RPA, can you briefly explain what it is and then how you guys have one about using it to help?</p>
Gisele:	<p>It's often referred to as bots, robots, digital employees. Um, there are numerous names, but it is software automated to perform tasks that human beings would typically perform, uh, but very structured, rule-based, um, repetitive, uh, for RPA. Now, we at the National Science Foundation, uh, interesting enough several of my colleagues, we went to the AGA in Boston and I sat in one of the sessions and just the light bulb came on for me and I just got so excited. Went back to my organization, partnered with one of my colleagues, and I said, look, we can, we can do this in a variety of areas, made the business case, uh, to our deputy CFO, CFO. And, um, about a year later, uh, we were putting bots into production.</p>
Delmolino:	<p>Wow. That's great. That's great. And I know you have a larger initiative called the, you know, the CFO office of the future. Right. And so that's a longer-term plan. As you've seen some successes with RPA, do you see that taking on a larger role? What kind of place do you see for that in that plan?</p>
Holden:	<p>Oh, absolutely. We have a community of practice within the National Science Foundation. The next organization that is planning to bring, uh, automation to their organization is one of our partner organizations. I think the interest is so great that the CIO organization really has to calibrate how fast we scale because there's a lot to do on the IT side: structure and processes and procedures. My position is that you need to build the program around RPA. To me it's like building a house. You can have the most beautiful house, but if that slab foundation is not built correctly, you will not scale. We're really</p>

	<p>doing what we need to do to put processes and procedures in place standard ways to even how we're going to build code so that it can be reusable. So, if you have one automation that opens up, uh, email that should be able to be reusable. But if you don't have standards, you know, one developer may code it a certain way it works, but the other person taking it may say, well I can't figure that out. So, we're coming up with standards for coding so that we, uh, we, we can reuse and set up a library so that, um, others can, can use that. So, we certainly have interest in the science organization and across, uh, NSF.</p>
Walch:	<p>Thanks, Gisele. Yeah, that's really important to start from the foundation. Make sure the foundation is solid before you build on top of that or else, you'll have a beautiful house that crumbles. [Absolutely] And I know that a lot of a lot of agencies are looking at RPA, other automation tools. Um, so this was very insightful, and you know, hopefully other agencies can learn from the successes that you've had. We're also joined today by Craig Fischer at the Bureau of Fiscal Service at the US treasury. So, thanks Craig and thanks for joining us today.</p>
Craig Fischer:	<p>Thanks for having me.</p>
Walch:	<p>I'm going to give a quick introduction on Craig, but then I'd like you to elaborate as well for our listeners who may not be familiar with you. Craig is a program manager and the Office of Financial Innovation and Transformation, otherwise known as FIT. FIT identifies and facilitates the implementation of innovative solutions to help government agencies become more efficient and transparent in federal financial management. He's responsible for managing an innovation portfolio that includes blockchain, process automation, and artificial intelligence.</p>
Fischer:	<p>Well, thanks so much for having me, and again my name is Craig Fischer. I'm a program manager within the office of financial innovation and transformation. Um, and really, I think what my job is to try to figure out what are those trends and technologies that will ultimately improve the way that we manage our finances. So right now, we're looking at things like robotic process automation, machine learning, artificial intelligence, blockchain, these things you're starting to see now in the private sector improving some of these things. And I think that we're asking the question, where can these technologies improve the way that we are managing our finances as well? We launched what we're calling our financial management vision. And really what this vision is, is that it's really our contract with the American people where that the government is going to be an efficient steward of financial resources. Uh, we're going to make sure that our financial information is that we provide to folks is accurate so that they can rely on it and that we are providing our taxpayers, payers with a modern, seamless and secure, um, sort of experience when they, when they interact with the federal government.</p>

Delmolino:	So, I know Craig, many of us may be, when we think about financial management, we may have an antiquated picture of, you know, green eye shades and double entry ledgers. Right? So, I'm really curious, you know, we talked about some really exciting emerging technologies. What, how do these technologies play in that role in that world?
Fischer:	Yeah, you think about it. I mean, I think from my perspective, financial management is really the movement of money and the accountability for that money. And I think what we're always trying to figure out is, is there more efficient ways that we can actually make this happen? Um, artificial intelligence, machine learning, blockchain, these are things that conceptually could potentially improve the way that we're doing things. But we need a better understanding of that. And I think that's what our office is trying to do is to try to understand these things and simplify it so it can be easily digestible for folks across the federal landscape.
Walch:	Yeah, that's really important because a lot of these buzzwords right now, everybody is talking about them. Everybody wants to use them, but not everybody knows exactly what they are. So, I think that education is really important. Now everybody talks about automation and how it can help agencies and companies in a variety of reasons. Can you talk to us about how the Bureau of Fiscal Services is using automation?
Fischer:	Sure. I mean right now, uh, we're in a very similar place where Gisele and NSF are when it comes to um, RPA. We, um, we launched a pilot project probably a year ago just to get a better sense of what this RPA thing was. We, we, we kind of dipped our toe into the water and then sort of, uh, responsibly sort of graduated up the scale. So, we started with just testing seven processes just to get a better understanding like, what this RPA software is, who do we have to include in the process? And then what we learned as we said, this is actually a technology that's ready for prime time. So, we slowly move that into production. We have about 10 bots in production right now, and we're looking to sort of build that up as we go. So, we're trying to figure out now how do we organize ourselves within the Bureau to better sort of deploy these, these more of emerging technologies.
Walch:	That's pretty exciting. And it sounds like you're really exploring a lot of different options. I know that you said you have 10 bots in production now, RPA bots. Can you explain to our listeners what those bots are doing and how they're helping?
Fischer:	Yeah. At a very high level, I think we're looking at faster processing times uh, again, uh bots don't go home at night, so these things can work 24 hours a day. So that's, that's positive for us. Uh, the throughput, we can actually put more things through these processes because of the, um, just the how quickly these things can actually process these transactions. The accuracy again goes

	<p>up because once you program a bot to do something it follows those rules. Uh, there's no fat fingering anymore on a keyboard. It's all programmed. So, it's like re-shifting that workload to be more analytics, more, you know, things like that that they want to be doing. Think of it too, like, you know, 20 years ago when excel was sort of coming in, we were doing these hand calculations or by calculator, Excel, sort of automated all this stuff for us. This is sort of that next iteration right now we're looking at for from automation. So, I think we have a lot of excitement within the Bureau around what the future holds for robotic process automation.</p>
Walch:	<p>That was a great analogy with excel because RPA, it does do a lot of the mundane tasks that people don't want to do, um, where they have a lot more value that they can add to an organization when they get to save hours out of their day or their work week, that they can be way more productive. These people have a lot of knowledge about, you know, processes, the, the company, the agency, the way things work, and they are able to actually use that now instead of doing these mundane tasks, like you said. So how does FIT interface with other agencies around automation?</p>
Fischer:	<p>Yeah, that's a good question. I think what we try to do is we, we really do look at ourselves as sort of the, you know, even with even within treasury, sort of the, the centerpiece for a lot of these financial activities that are, that are occurring. So really what we try to do is we try to partner with agencies that are looking to do something around automation. We did this with, with the National Science Foundation where we partnered with them where we shared our lessons, learned around some robotic process automation and we identified some, some areas of, of potential, uh, areas that could be improved with robotic process automation. And we actually gave them a little bit of money to help with, with the pilot, and they carried out the pilot and probably about six, eight months later they came back and said, here's what we found and here are our results. Part of the, I guess, contract, so to speak, of that relationship was that they had to share those lessons learned with the rest of the community. So, I like to think that FITs, helping sort of move the community along when it comes to these technologies that are getting some support, getting some backing, time tested sort of things. Um, but we don't operate, you know, we don't, we don't have the sort of a reimbursable model. We just go out there to find partners to really promote and see if we can actually transform federal financial management.</p>
Delmolino:	<p>So, Giselle You've had this same kind of experience you know, implementing an emerging technology like automation. What's your perspective on how automation affects the federal government as a whole?</p>
Holden:	<p>Um, so I think a lot of it has to do with, uh, certain groups. Obviously, your auditors, your kind of IG folks, they put the skeptical, skeptical hat on and, and that's to be expected. Um, and I used to be an auditor myself, so I do</p>

	<p>understand, um, kind of where they're going. And for many of them, this is new and they're trying to figure out how will we audit this, right? And so, uh, so different groups approach it or have different thoughts about, um, how this is going to work across the government and mature across the government. So, it really is about working together, uh, dispelling those concerns. For example, we have worked with, um, our IT organization and we have documented all of the key controls and what document or processes, uh, support those controls. And so, we're going to be able to give those to our IG and walk them through and with the hope that, okay, this is how this works. They just need to understand, and they have a role to ensure that, um, controls are in place as well as the IT organization. When they, when they have to put these, uh, automations into their IT ecosystem, they have to go through rigorous, um, processes, change control boards, different disciplines to say, yes, we, we can do this without introducing undue risk.</p>
Delmolino:	<p>So, Craig, a lot of our listeners tune in and they're curious and to learn more about the burgeoning field of artificial intelligence. And there are many different technologies in that field. Lots of interesting and exciting applications of artificial intelligence. Lots of questions too. Um, so in the context of automation, do you see that RPA in these automation technologies or an onramp, maybe an easy way for people to get started in artificial intelligence? How do you put RPA in the context of artificial intelligence for our listeners?</p>
Fischer:	<p>Yeah, I guess I do in many ways think it's more of a, an onramp to these more, uh, sort of maybe complicated sort of softwares. Uh, I think, I think a little bit has to do with the fact that as people start to work with RPA, they become a little bit more comfortable with a new technology, which, which allows them to sort of naturally pivot to something a little bit more complicated. Um, but I don't think that there's necessarily has to have that sequence there. Uh, I, I do think that if somebody has a really good business case, has this really problem that they want to solve and artificial intelligence does that - they have troves of data, they need some sort of predictive analysis around that - then I think you can just sort of naturally just go down that path. I think for others that don't quite maybe understand those use cases are at this point, I think RPA and those types of automation software will lead us to better understand what those use cases actually are, where artificial intelligence could actually improve our lives.</p>
Delmolino:	<p>Makes sense. So does that, one question I had for you Gisele is, since RPA and automation often has direct applicability to a business function, do you think that the business should be leaning automation efforts or is this something IT should make available that then businesses, business units can take advantage of? Who should take the lead on this?</p>
Holden:	<p>Actually, I think it should be a partnership, uh, because if the IT took the lead,</p>

	<p>they may think about a software that may not meet the agency's need at that time. There are some, uh, business needs that some software may lend itself to better support. So that's why I think it is a partnership and that's how we handled and approached it at the National Science Foundation. We brought the, the business case to the organization, but immediately we engaged the CIO organization and said, this is what we're trying to do. Here are some of the tasks that we believe would best fit, uh, for um, RPA and we together evaluated a number of vendors and together came to the conclusion what we were going to select. So, I wouldn't say one or the other. You need both working hand in hand with a synergistic kind of approach.</p>
Delmolino:	<p>Yeah, that sounds great. So, Craig, what things have you seen to allow both sides to be more effective in that partnership?</p>
Fischer:	<p>Sometimes I think, in many ways there is a little bit of healthy tension between the business folks and the IT folks where the business folks might be saying, this is the only way that I can do something. This is the only way I can do. And the IT folks are saying this isn't going to fit within our architecture. So, I think having that healthy tension got you to those better answers down down the road. So, I do like the partnership, but I do also like that healthy tension because I think you get a better product in the end.</p>
Walch:	<p>Yeah, I think that's, you know, really good to point out because sometimes people get so excited or so focused that they're not talking to different departments, different groups, and they start down a path that might not be the best path in the long run. So, bringing in, you know, both sides of the business and the IT side really help balance things out. Now for some of our listeners who want to get started with automation, but they're not quite there yet, what suggestions and tips do you have for them to help get started?</p>
Fischer:	<p>I mean I would say one of the things that we did, and I think it proved to be very successful was start small. I think we started very small with these projects. We didn't go too deep. We didn't make a huge commitment. we didn't take large risks with these emerging technologies and that really proved out to be successful. Uh, I also think you need to understand really well what the business problem you are trying to solve or the opportunity that you want to exploit. I think sometimes we overemphasize problems and that there's opportunities that we can also achieve with some of these emerging technologies. So those are the two things that I think I would say have been critical for us is starting small and really understanding that that business problem or the opportunity that you want to try to exploit.</p>
Holden:	<p>I believe starting small as well is extremely important. At the National Science Foundation within the division of financial management, we created an inventory of tasks that employees were performing that we felt were great</p>

	<p>candidates for RPA. We documented what it took in terms of time and cost to figure out what the return on investment would be, the payback period, then we were able to show that if we could free up some of our, uh, key individuals performing these repetitive tasks, these are other areas that they could be performing that would be giving more value to the organization.</p>
Walch:	<p>So we've talked a lot about the positive effects of all of this disruptive technology, but there's also some cons involved and you know, there can be pushed back internally and various other problems such as well, so Gisele can you talk to us about some of the, you know, cons that you've encountered.</p>
Holden:	<p>Well we haven't, uh, we haven't encountered any cons as yet, but what I do see that we really have to be careful about is that the, the RPAs, uh, work very well with a static user interface. So, if you make a change, that bot is going to break. And so that requires closer coordination with say, you know, the, the IT shop, um, upgrades Java and that, that technology, that automation, it performs on that version. And so now, now the IT shop has to think about that. Okay. So, when we just, you know, make upgrades to say email, and if, uh, if, uh, automation is accessing email, that's gotta be tested to see whether it's going to have an impact. And so that's, um, that, that's one of the, um, challenges I would say. And then I think the other is making sure that, that when you're thinking about automation, automation, um, is not the cure all of everything that might not be going right in your organization. So, you really kind of have to look at, you know, is it that you need, uh, policy changes? Do you need business process reengineering? First of all, identifying what the, what the challenge, what the issue is and then stepping through can automation solve that. I don't think we should just default to that when we have a problem.</p>
Walch:	<p>Craig, I'd love your thoughts on this as well.</p>
Fischer:	<p>Yeah, I think what we need to do is, especially when you're looking at bringing in new technologies into an organization, is I think you do need to start looking at this holistically. So even though I did say that you need to start small, I think you need to have you, I think you need to think big. And what I mean by that is that what happens if this does start to pick up steam and go to scale, if you haven't thought through that, you might get tripped up. I think what we're learning right now, and maybe what we didn't anticipate with robotic process automation and at the forefront is that we'd have all these other people that want to sort of start to take advantage of these, of these, this robotic process, the RPA software. So, we weren't prepared for that. And I think what we should have done on hindsight is think through that. Another thing too is, you know, there's only so much that an organization is going to be able to consume at one time. So, you're looking at RPA, you're looking at blockchain, you're looking at AI. These things will have to be prioritized in these things. We're going to have to work together. So, we need somebody to</p>

	really sit there and play chess with all of these pieces and to say 20 steps down. What does my board look like? So that's going to be a really important part of all these emerging technologies as we move forward.
Walch:	Yeah, that's great to point out. You know, everybody wants to do everything, but you can't do everything all at once. So, prioritize, start small, think big, make sure that you really have a path to success. A lot of people you know want to talk about automation, but you need to make sure that you talk about it correctly within your agency and that you get buy in from all levels. Um, some people get very scared that automation will take away their jobs and that's not always the case. So how do you engage the workforce around automation and then what type of training or change in mindset do you need from both management and, uh, you know, everybody in the organization.
Fischer:	Uh, we really did engage our workers right up front and we said, here's what this software does. Here's, where, here's where it will improve your life. And we got buy in right away and there was, it generated a lot of excitement, a lot of energy around people wanting to learn how to program these bots. If, if these bots did break, how do I fix them? So now people are starting to think around, well I was doing this before but now the bot is doing this. But maybe what I can do is I can learn how to be a bot programmer, or I can learn how to fix these bots. So, there is sort of this natural sort of maybe segue into this next evolution. I go back to that, you know the excel you have that you had that one person, the office that was really good at making macros, right? So, I think that that, that's sort of how the job skills that will shift.
Holden:	Adding to that, what I would say the various software vendors have training programs and some of them provide them free at certain, uh, level. And, but then as you move to more advanced, um, then there, there is a cost. But we have several folks that are planning to be certified developers and they don't have an IT background. But they're very astute and working with our vendor, uh, they, they are moving forward and so that's very, very exciting to have folks, uh, that had not heard about this and you know, the last year or so, and now they're taking the training. I also noticed that, and this may move into kind of the center of excellence, is that once you have folks who know how to develop these automations, you really have to provide an avenue for them to continue to do so because they will lose that, that skillset and be disappointed because you know, they've put in a lot of work to train and be certified.
Delmolino:	You mentioned the center of excellence. How do you create that kind of culture? Do you transition people to it? It's starting to become almost like a shared service internally. So, what does that mean for you?
Holden:	Sure. Actually, our CIO is very engaged in this initiative and as we are brainstorming, we started talking about standards because we want the library of usability. And so, the IT shop will be, um, very much involved. And

	<p>so, when, so when someone is going to be building, these are the standards that they will need to, to follow and we will be working with them. Again, it's a partnership. And so senior leadership is certainly on board. So, as you do these, um, automations, you start to think of a number of things and then you start to say, wow, for sustainability we've got to do 'X'. And so, we're learning as, as we go and, and I'm sure other agencies are experiencing the same thing.</p>
Delmolino:	<p>So, Craig with your experience with innovative technology introduction, right? This sounds like a normal progression, right? You start small, you learn some lessons, you say, okay, let's not repeat mistakes. Let's build a center of excellence to share what works and tell people what doesn't. And then probably the next step may be further along is well maybe we should offer this as a consistent service. And so, I'm curious, do you see automation as something that might be driving more momentum towards shared services?</p>
Fischer:	<p>Yeah, I think, uh, you know, from my perspective, I think what automation can give you an a shared, shared services environment is that you do have more sort of software doing the work that people were doing before, which allows more people to come into that shared services environment. I think this is being a tool to increase capacity when it comes to, uh, people using, our agencies using shared services. Um, but the interesting thing is what you said too around like how do we organize ourselves even internally, and how do you prioritize these things? How do you ingest it? So, we're in the throes of that as well as we try to figure out what is the governance model that we're going to lay on top of all this automation. These are things that we still are learning how this is going to happen. Um, but starting it and starting to, to walk down this path to create these, this governance model that, that we can really get to scale as fast as we can but doing it also very responsibly.</p>
Walch:	<p>Great. Thank you so much for joining us today. This was a very, a great conversation and a very informative podcast. So, Craig, for our listeners, how can they learn more about FIT and also how can they get ahold of you if they'd like to reach out?</p>
Fischer:	<p>Sure. You can just go to uh, if you just Google treasury FIT, we will be the first thing that pops up. I am on Twitter, I'm on LinkedIn. I do follow our own, so you can see from that community to practice as well.</p>
Walch:	<p>And Gisele thank you for joining us. And for our listeners that would like to get ahold of you, how can they go about doing that?</p>
Holden:	<p>Yeah, so I'm in, I'm on LinkedIn as well, and they can reach me at Gholden@nsf.gov.</p>
Fischer:	<p>Thanks for having us.</p>

Delmolino:	Awesome thank you both. That was a great discussion. While there is a lot of excitement and potential around robotic process automation tools, it certainly seems like strong executive leadership where the business unit and CIO are in alignment facilitate successful, rapid adoption. External partnerships with organizations that can help with testing and knowledge sharing also provides an impetus for successful implementations while providing the basis for a community of practice that highlights what works and what doesn't.
Walch:	I think that this was a great example of how buy in of various technologies from top leadership can have such a great trickle-down effect to having these technologies adopted and successfully implemented. There will always be hurdles and issues that arise when adopting new technologies so getting buy in at all levels is so important.
Delmolino:	One thing I didn't expect to learn is that robots need training too when system changes are rolled out within an organization. The bot workforce clearly needs supervision and assistance to make sure it continues to work well alongside the human workers. But getting this right leads to humans doing more valuable work while their RPA counterparts consistently and accurately deal with important repetitive tasks.
Walch:	That's a great point. This isn't a set it and forget it type of tool.
Delmolino:	Thanks for joining us, we'll be back next time with a discussion of AI and ethics in the public sector. If you liked what you heard, share this show with a friend or rank us on your favorite podcast provider!
	[Exit Music]
Delmolino:	Thank you for listening to Exploring AI in Government, brought to you by Accenture Federal Services. To continue the conversation, visit us at Accenture.com/ExploreAI , where you can listen to other episodes and download relevant research. Or you can connect with myself, Dominic Delmolino, and our guest analyst, Kathleen Walch, on social media. We look forward to seeing you at Accenture.com/ExploreAI