

HARNESSING AI TO IMPROVE GOVERNMENT SERVICES AND CUSTOMER EXPERIENCE

HEARING

BEFORE THE

COMMITTEE ON
HOMELAND SECURITY AND
GOVERNMENTAL AFFAIRS
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HARNESSING AI TO IMPROVE GOVERNMENT SERVICES AND CUSTOMER EXPERIENCE

WEDNESDAY, JANUARY 10, 2024

U.S. SENATE,
COMMITTEE ON HOMELAND SECURITY
AND GOVERNMENTAL AFFAIRS,
Washington, DC.

The Committee met, pursuant to notice, at 10 a.m., in room 562, Dirksen Senate Office Building, Hon. Gary Peters, Chair of the Committee, presiding.

Present: Senators Peters [presiding], Carper, Hassan, Blumenthal, Ossoff, Butler, and Hawley.

OPENING STATEMENT OF SENATOR PETERS¹

Chairman PETERS. The Committee will come to order. We all interact with the government throughout our lives, whether it is applying for a small business loan, receiving financial aid to pursue an education, accessing essential health care, or applying for Social Security.

Our citizens turn to the government for all sorts of critical services. As elected officials, we must ensure that agencies provide those services as effectively as possible, and artificial intelligence (AI) can help succeed in doing that work.

This technology has the potential to make government services more efficient, effective, and accessible for all Americans. For instance, AI can easily translate crucial documents into multiple languages.

It can operate 24/7 chatbots that provide our citizens with interactive assistance. It can allow employees to tackle more requests in less time with greater accuracy. AI can make complex processes easier to navigate. The government's use of AI to deliver services is certainly not new.

Three decades ago, the U.S. Postal Service (USPS) used it to create faster mail delivery services. Today, in my home State of Michigan, AI tools are providing translation services for citizens applying for permits and for licenses.

This technology is already making a difference in the lives of countless American civilians. But this is a watershed moment for AI. These technologies grow more advanced nearly every day, reaching more and more aspects of American life.

That is why, in the last year, I have convened five hearings on artificial intelligence, and we have passed legislation out of this

¹The prepared statement of Senator Peters appears in the Appendix on page 25.

Committee to address the challenges as well as the opportunities posed by AI.

This builds on my previous legislation to provide educational opportunities on AI, establish adequate training resources, and provide agencies with guidance on how to implement AI tools most effectively.

This Congress, our Committee has passed my bipartisan Improving Government Services Act to encourage Federal agencies to adopt proven customer service tools to help ensure Americans get the assistance that they need. This bill builds upon the hearing we convened last Congress to explore ways agencies can build trust by improving the customer experience (CX).

This is a key moment to understand the capabilities of AI, and how it can benefit both government employees and the citizens that they serve, and under what circumstances. This hearing will help us do just that.

We will examine the ways that AI can help deliver critical services and improve the public's experience in receiving them. We will outline the guardrails that this technology requires, the training resources, privacy standards, and performance metrics we need to properly implement AI tools, and our expert panel of witnesses will help us understand how this can happen at all levels of government.

We have a responsibility to do everything we can to ensure government provides the most effective and efficient government services. Succeeding in that work will help our constituents.

It will improve trust in government and strengthen our democratic institutions. This hearing is an opportunity to examine how artificial intelligence can achieve that mission. It is the practice of the Homeland Security and Governmental Affairs Committee (HSGAC) to swear in witnesses.

If each of you would please stand and raise your right hand. Do you swear that the testimony that you will give before this Committee will be the truth, the whole truth, and nothing but the truth, so help you, God?

Ms. PAHLKA. I do.

Ms. BLAUER. I do.

Ms. NOVECK. I do.

Chairman PETERS. Thank you. You may be seated. Our first witness is Jennifer Pahlka, and she is a renowned author and expert on public digital services. She has served in a range of roles across all levels of Government, including the U.S. Deputy Chief Technology Officer.

And during her time in Government, she helped found the United States Digital Service, fix healthcare.gov, and improve the functionality of California's unemployment insurance program.

Prior to her public service, Ms. Pahlka founded Code for America, a nonprofit working to enhance government services through digital tools. She is also author of Recording America, which was named as one of National Public Radio (NPRs) best books of 2023 and made President Obama's AI reading list.

Congratulations on that. Ms. Pahlka, you are recognized for your opening comments.

TESTIMONY OF JENNIFER PAHLKA,¹ AUTHOR, RECODING AMERICA: WHY GOVERNMENT IS FAILING IN THE DIGITAL AGE AND HOW WE CAN DO BETTER, FORMER U.S. DEPUTY CHIEF TECHNOLOGY OFFICER

Ms. PAHLKA. Thank you so much, Chair Peters and Members of the Committee. Thank you for inviting me here today.

My message today is simple, a powerful body like the U.S. Senate has many tools at its disposal to shape the future of the country. Those tools can be used to create mandates and controls on the institutions that deliver for the American people, or they can be used to enable these institutions to use their judgment in the service of agreed upon goals.

A mandate and control framework will add rules and processes. An enablement framework will focus on building capacity, both by strengthening the workforce and reducing the burdens on everyone in it. This critical AI moment calls for enablement. The recent Executive Order (EO) on AI already provides some new controls and safeguards.

The order strikes a reasonable balance between encouragement and caution, but I worry that some of its guidance will be applied inappropriately. For example, some government agencies have long been using AI for day to day functions like handwriting recognition on envelopes, and agencies may now subject these benign, low risk uses to red tape.

Caution is merited in some places and dangerous in others, where we risk moving backward, not forward. Moreover, in many areas of government service delivery, the status quo is frankly not worth protecting.

We understandably want to make sure, for instance, that applicants for government benefits are not unfairly denied by—because of bias in algorithms. The reality is that to take just one benefit, 1 in 6 determinations of eligibility for Supplemental Nutrition Assistance Program (SNAP) is substantially incorrect today. If you count procedural errors, the error rate is 44 percent.

Worse are the applications and adjudications that have not been decided at all, the ones sitting in backlogs, causing enormous distress to the public and wasting taxpayer dollars. Poor application of AI in these context could indeed make a bad situation worse.

But for people who are fed up and just want someone to get back to them about their tax return, their unemployment insurance check, or even their company's permit to build infrastructure, something has to change. We cannot double down on the remedies that failed in the Internet age, and hope that somehow it would work out in the age of AI.

We must finally commit to the hard work of building digital capacity. the Office of Personnel Management (OPM) and the White House have stated their intentions to build that capacity by hiring tech talent. This is a case where strengthening the workforce is also a matter of reducing burdens.

OPM's recent memo, for instance, will grant direct hire authority for several AI related job classifications, and that will remove a bit of the red tape agencies need to bring on experts. That direct hire

¹ The prepared statement of Ms. Pahlka appears in the Appendix on page 27.

authority does not allow for the use of pooled hiring across agencies, despite the fact that pooled hiring has gotten us many excellent data scientists and other tech roles much more quickly.

Agencies will have to run separate hiring processes for each open position, which will take enormous amounts of time and paperwork even with the direct hire authority. Congress should ask OPM what authorities they need in order to change this, and what resources they need to scale programs like this highly successful Subject Matter Expertise Qualifying Assessments (SME-QA) program. Then ask, what is the next obstacle that they need removed.

I do not presume to know everything that is needed, only that they operate in a highly constrained environment no longer fit to the purpose it must serve. We must reduce burdens in other areas as well. What the public wants from customer service is answers, where is my check? Why did I get this Internal Revenue Service (IRS) notice?

If we use AI to make it easier to talk to government, but not to get those answers, we fail. The key reason those answers are hard to come by is the enormous complexity of government programs.

I worked on the pandemic unemployment insurance crisis and encountered what is close to 10,000 pages of regulation governing what should be a relatively simple program. A claims processor working with my colleague kept calling himself the new guy because he was still learning the ropes. He had been with the agency for 17 years.

Recall that unemployment insurance dates back to the 1935 Social Security Act. We have been adding rule upon rule and mandate upon mandate for close to 90 years now. We almost never remove them. It is no wonder the program is still in peril. It is collapsing under its own weight that Federal and State agencies cannot shed on their own. It is tempting to say that AI will help us by understanding those 90 years of accumulated policy cruft for us.

This is appealing in the short term, but dangerous in the long run. We cannot have a government so complex that one algorithm talks to the other at such a level of complexity that humans are out of the loop. But we can and should use AI to suggest dramatic simplifications to those overwrought frameworks, and make those new, leaner frameworks the law of the land.

The greatest gift this body could give to the agencies and the American public they serve is a massive, thorough decluttering. AI makes it possible, but only the people in this chamber can make it happen. Thank you very much.

Chairman PETERS. Thank you, Ms. Pahlka, for your testimony. Our next witness is Dr. Beth Blauer. Currently serves as Associate Vice Provost for the Public Sector Innovation at Johns Hopkins University.

In 2015, she founded the Bloomberg Center for Government Excellence (GovEx) at Johns Hopkins to help Government use data effectively to improve the lives of people across the United States and around the world.

Since then, the GovEx has worked alongside thousands of public officials, and Ms. Blauer has become a leading expert on the use of innovative technology in Government services.

Ms. Blauer, you are recognized for your opening statement.

**TESTIMONY OF BETH BLAUER,¹ ASSOCIATE VICE PROVOST
FOR PUBLIC SECTOR INNOVATION, JOHNS HOPKINS UNI-
VERSITY**

Ms. BLAUER. Chair Peters, Committee Members, thank you for inviting me to participate in today's hearing. It is an absolute honor to share my views on AI, which reflect my personal and professional expertise and are not necessarily a position of Johns Hopkins University or medicine.

I come to this Committee with more than 20 years of public sector experience. My first job in government was as a juvenile probation officer, and I ended service more than a decade later as the de facto Chief Operating Officer (COO) of the State of Maryland, where I had the opportunity to oversee about 85 percent of the State's budget and a comparable amount of the workforce through an innovative, data driven program called StateStat.

Together with leaders across our State, we used data to create better outcomes for all Marylanders, leading to stronger schools, safer communities, a healthier Chesapeake Bay, and a strong economic outlook, all accomplished by maintaining fidelity to a robust data practice and evidence based decisionmaking implemented across the whole of government.

In 2015, I founded the Bloomberg Center for Government Excellence at Johns Hopkins University with a simple yet ambitious goal, to help government, primarily cities, use data effectively to improve the lives of residents across the United States and around the globe.

Over the past eight years, GovEx has established itself as a global leader, working alongside thousands of public officials to achieve our goal. We are the go to resource for governments as they seek to improve data proficiency and develop data driven policy solutions, drawing on the most cutting edge technology, including AI and advanced analytics.

Technology progress can present unique challenges in the public sector, but where some see barriers, we see opportunity. An effective AI approach relies on investment in core data practices.

When public institutions attempt to dive into the deep end of analytics, automation, or machine learning without first building a strong data practice, they run the risk of propagating disparate impacts, poorly informing decisions, and creating bad outcomes.

When done right, a strong data practice will lead to safer AI implementation that will anticipate resident need and promote safer, more efficient, healthier, thriving communities. We have learned from our work with cities that there is already a strong body of evidence that AI and local government can improve lives.

For example, cities are using AI to reduce traffic congestion and manage fleet, ensuring prompt service delivery and saving money. AI also have the potential to predict the needs of residents before it is too late by identifying households that are experiencing the early onset of economic distress. Early detection allows public agencies to provide immediate interventions that reduce barriers to aid and expedite connecting the right services to those in need. For example, cities have used AI to predict which residents are at risk

¹ The prepared statement of Ms. Blauer appears in the Appendix on page 40.

of becoming homeless by analyzing utility and property violation data. This analysis has led to public interventions coming sooner, keeping families in their homes, and saving public resources. When local leaders ask us how to get started, this is what we suggest.

No. 1, designate a senior leader. This should be a trusted partner who knows when to deploy AI and when not to. Someone who can influence service design, and someone with the power and authority to lead governance and technical strategy while asking the right questions.

No. 2, share early guidance. Be transparent about when AI is deployed. Assess the risks. Take precautions to avoid bias in delivery. Create, communicate an acceptable use policy, and bring people to the table to discuss.

No. 3, you already are investing in technology that incorporates AI, explore what you already have. Many technology platforms are already doing this important integration, and big and expensive investments should not be your first move.

No. 4, create space for experimentation. Integrate a review of your AI implementation into ongoing performance routines. Be clear before implementation about what success looks like. Track progress and give your team the right balance of space and support. We are learning as we go.

An iterative stance with reflection and learning periods baked into the process creates fertile ground for cautious experimentation. At the same time, some organizations may not be ready to implement AI. For example, some municipalities may learn that they need to get their data houses in order before they can use data for predictive modeling. Some may realize they do not have sufficient expertise on staff and need to hire.

Others may find that their policies prevent AI implementation, and they need to address that first. In order to maximize the use of AI in public organizations, government must invest in the capacity for technology adoption across all levels and program areas. This means that we need to attract new skills to the sector.

We need to elevate the capacity of the current workforce, and we need to start investing in the creation of public space to experiment with the new AI powered technologies. But there are positive signs on the horizon. I would like to thank Chair Peters and the Senators of both parties on this Committee for your leadership on this important issue, as demonstrated by the introduction of the bipartisan Improvement Government Service Act.

This important piece of legislation would require agencies to develop, implement, and submit to Congress a written, comprehensive customer experience strategy that includes the adoption of some of these best practices from the private sector, and long term planning for customer service modernization.

This is exactly the type of jumpstart and focus on the basics that will greatly benefit the American people. Thank you for your time today, and I am very happy to take any questions.

Chairman PETERS. Thank you, Ms. Blauer. Our final witness is Dr. Beth Noveck. Yesterday, Governor Murphy appointed Dr. Noveck as the first Chief AI Strategist of New Jersey, where she also currently serves as the State's first Chief Innovation Officer (CINO).

Prior to that post, she served as a founding U.S. Deputy Chief Technology Officer and head of the White House Open Government Initiative under President Obama.

Outside of her dedicated public service, Dr. Noveck works as a Professor of Experimental AI at Northeastern University, where she directs the Burn Center for Social Change, as well as its partner project, the Governance Lab.

For the last 20 years, Dr. Noveck has designed and built public tools to improve governance and strengthen our democracy. Dr. Noveck, you are now recognized for your opening comments.

TESTIMONY OF BETH SIMONE NOVECK, PH.D.,¹ CHIEF INNOVATION OFFICER, STATE OF NEW JERSEY, PROFESSOR OF EXPERIENTIAL AI, NORTHEASTERN UNIVERSITY

Ms. NOVECK. Thank you, Chair Peter, and thank you so much for this opportunity to appear before the Committee, especially in the company of such a distinguished panel. Despite having funded the creation of the Internet, the public sector, we can all agree, I think has really lagged in its adoption.

But now I think government can lead in the use of artificial intelligence for public good. Because especially of the power of AI to sort, to organize, and to summarize vast amounts of data and text, AI has the potential to make government more effective, more efficient, and more responsive to residents.

AI is already helping us to create what I would call a more conversational government, where we can supply information and benefits and services, as you alluded to, 24/7. In New Jersey, we are using AI enabled chat bots to answer resident questions via the web.

We also support our call centers with AI, which helps staff quickly write menu options and answers to questions in response to public demand. That means the public is getting accurate answers faster, and that allows our call center operators to increase the resolution of calls now by 50 percent by human operators.

We are able to create now a more accessible government as well, with AI driven translation and summarization. My wonderful students at Northeastern University and the AI for Impact co-op program, where students are doing a six-month full time paid internship working for governments on AI projects.

Students, for example, have been working with the California nonprofit Innovate Public Schools to help families of schoolchildren with disabilities translate and summarize the child's individualized education program (IEP). For most families, that is a 50 to 100 page portable document format (PDF) of inscrutable legalese and government speak.

Students in this, as we call it, Apex International Education Partners (AIEP) project team worked with a network of parents now to design a tool that enables families to upload their IEP and then securely and privately ask questions of the documents, such as what are the accommodations to which my child is entitled.

Because generative AI makes it so much faster to write code, students built a fully functional product in just one semester. AI is

¹ The prepared statement of Dr. Noveck appears in the Appendix on page 46.

also helping us to support public workers in their effort to do a better job serving residents. In New Jersey, our innovation team engineers have integrated AI copilot tools.

That is to say, tools that suggest to them which line of code to write next, and that is enabling us to write code 55 percent faster, creating a wide array of digital benefits much faster than we were able to do before. Governments are also using AI to process data, as we have heard, more efficiently.

In New Jersey, where we design government operations with residents rather than for them, we actively invite citizen comment. That is to say, we often receive thousands of comment, for example, from unemployment claimants telling us what their questions are, what they would like to see next, what information they need, and then an AI can help us parse those comments in a way that we could not do with the current staff that we have.

We can then, based on that understanding, put front and center the information that people want, and as a result of which, over the last year, we have brought down the time it takes to apply for unemployment benefits by 48 minutes per application. Governments are also turning to AI to improve how we do public engagement more broadly.

I am working now with the Museum of Science to run a national consultation to understand why it is, shockingly, that only 33 percent of fourth graders were proficient readers last year.

The free and open source tool, Policy Synth, that we designed together with the nonprofit Citizens Foundation automated the creation of thousands of research questions, allowing us to synthesize then 150 root causes of the problem of illiteracy.

Now at unlockingliteracy.ai, we are asking parents and students and educators around the country, what do they think is the real cause of the problem, and to tell us how we can do things better.

To realize this vision of AI enabled public administration, where residents do not have to wait on hold, do not have to go to a government office, and do not have to, frankly, go from website to websites searching for the information they need, let me just end with a couple of recommendations.

I have a much longer list in my written submission. You can support Federal efforts to implement AI systems to provide this kind of round the clock information services, about policies, about benefits, about services, again, 24/7 and in multiple languages. We need to employ AI for more robust public engagement—first to improve services. We can turn to AI to help us synthesize comments in a human centered design process.

I would add, we can also engage the public using AI to talk about how we are using AI and how we are governing the use of AI in agencies. We need to intensify efforts to open government data, ensuring that it is in machine readable formats, to facilitate the training of better AI models, and, frankly, to build and grow the American AI industry.

Finally, we need to build on the success of the AI Leadership Training Act that came out of this Committee by implementing free, accessible training not just for leadership, but for all Federal employees, going beyond senior officials, focusing not just on knowledge of what AI is, but on practical applications in government

services, ensuring that we collect data and evaluate impact about how such upskilling translates into better public service efficiency and better innovation. I look forward to your questions. Thank you very much.

Chairman PETERS. Thank you, Dr. Noveck. Ms. Pahlka, numerous surveys suggest that satisfaction with government services is a lot lower than it is in the private sector. My question for you is, what is your assessment of the State of Government service delivery today? What should we be striving for?

Ms. PAHLKA. It is lower, but it is getting better. I think what we need to recognize is that now it must get better, faster. It has to get better faster in part because the gap between public and private sector is about to widen as private sector actors adopt AI.

Also, because AI is going to complicate the landscape within Federal agencies, and so there is a need to step up. I think the way to get it better is both to support a lot of current efforts that are already underway. My colleagues have mentioned several of them, and there is a great foundation to build on. But also, to look at new tactics, like policy simplification, which I mentioned in my opening statement.

The goal is a good question. I think many people will say that we need to be on par with the private sector. There are, of course, differences between the public sector and the private sector. I think the way I would put it is that the level of service needs to recognize what is at stake for the citizen.

Very often when you are engaging with the private sector, you are getting your cable bill or getting a car, it may be critical to you in that moment it but it is nowhere near as critical if you are doing something like expecting a tax return check or getting your unemployment insurance, when that may be really life changing for you.

The level of service should be appropriate to how critical it is to the human on the other end.

Chairman PETERS. Thank you. This next question is going to be actually all three witnesses. Ms. Blauer, I will start with you and then we will work down the dais.

This Congress, I introduced the Improving Government Services Act to encourage agencies to improve customer service and also reduce backlogs, which some have tremendous backlogs, unfortunately.

My question, though for each of you is that how can AI help agencies provide quality outcomes for these key services but also protect individual privacy, something that we are concerned about and hear from constituents all the time, related to their concerns.

Ms. Blauer, what are your suggestions?

Ms. BLAUER. Thank you so much for the question. I am going to take the question in two parts. The first one is how do we make sure that AI actually aligns the outcomes that we want to see, and that requires leadership.

We need leaders who can articulate goals for customer service, that can create those expectations for what customers should expect in interactions with the government, and we should make sure that we build the habits within our government to measure whether or not we are hitting those goals.

We need to make sure that if we have set a standard, that we are holding to that standard. Then the way that we think about AI and the way that we protect individual information is that when we think about this culture of experimentation, AI right now, we are in a research and design phase, and we need to create a ring fence around these opportunities to experiment with a technology that does not include utilization of personally identifying information (PII).

We can get very far by using data that is de-identified, that is safe, and that will not expose individual level data. We can do that by thinking really strategically about those frameworks that we set out in the bill, in the way that we think about building out these opportunities for experimentation.

Chairman PETERS. Thank you. Dr. Noveck.

Ms. NOVECK. Thank you. Let me also take this in two parts then. The discussion that we have already begun to have and that you have alluded to around using chat bots and the ability to use AI to help answer people's questions 24/7 will help us begin to reduce the backlog.

The ability to use AI to help us write better, clearer instructions and directions, again, will help people get customer service faster. The ability for us to use AI to bring information together across agencies, across departments, across those 10,000 regulations that you talked about, that ability to now synthesize information, I think can help us to create this more conversational ethos where we are responding to people's questions and then reducing the need for them to call in, to wait, etcetera.

But we also then need to speed up how we do that work, and that is where some of these copilot techniques, this ability to use AI to help us write code faster, really comes into play. But I do want to respond to the second half, and as Beth alluded to already, this ensuring that we are not using, and we do not need to in most cases, use PII or sensitive information, and how we do this, I think, is really crucial.

It is one of the guidelines that we have put out in our policy in New Jersey as we have embraced and encouraged people to responsibly use AI in order to improve customer service, but we said, be very careful.

Do not type personally identifiable information into these tools, not that of residents, not that of yourselves, in order to ensure that we are protecting privacy, even at the same time as we are improving customer service.

Chairman PETERS. Thank you. Ms. Pahlka.

Ms. PAHLKA. Wise words from my co-witnesses here. I support everything that they just said and simply add that I guess from the perspective of the pair mandates and directives with enablement.

In other words, agencies want to do these things. They want to improve government service delivery, and there are many things that often stand in their way that make them take a long time to do things, jump through a lot of hoops.

As you say, as you direct them to take these actions, also ask them what can we remove to make this easier.

Chairman PETERS. Thank you. Senator Carper, you are recognized for your questions.

OPENING STATEMENT OF SENATOR CARPER

Senator CARPER. Thank you, Mr. Chair. To our witnesses, welcome. Is it Pahlka?

Ms. PAHLKA. Yes.

Senator CARPER. Pahlka, right, Noveck, and Blauer. Those were my only questions. [Laughter.]

Ms. PAHLKA. That was easy.

Senator CARPER. Not really. I think everybody on this Committee has been fortunate to hold a whole lot of different jobs in our lives. I think of myself as a servant, as Governor of Delaware. Maggie was Governor of her State as well. We got several Governors on this panel.

But we focused a whole lot on customer service. I remember I was right out of the Navy, moved to Delaware from California and went to go to the Department of Motor Vehicles (DMV) in Wilmington, Delaware to get my Volkswagen Karmann Ghia, with a rebuilt engine, through inspection and it took forever to find a place.

When we got there, I was convinced that the people who work there hated me and anybody else who showed up for an inspection. I said, boy, would it be great to have a chance to fix that someday and change that.

Today, when people go into a DMV in Delaware, the first thing they see is customer service, how can I help you. It used to be that people hated the Division of Revenue, which is like our IRS in Delaware.

We did have a lousy reputation for service. My last year as Governor, the folks at the Division of Revenue won the customer service award for best service of any nonprofit or business entity in the State of Delaware. We did not have AI then. Imagine how good we could be if we had AI then.

AI could be a good thing, a real good thing, or it could be a real bad thing. Why I am excited about this hearing today to hear what the upside might be. When Chuck Schumer, our leader, told us a couple of months ago, we are going to have a series of briefings on AI, I said to my colleagues, I said I could barely spell AI.

Several of them said to me later, they could barely spell AI as well. But I think I have almost got it down, at least the spelling. Now to find out, how can we harness this to provide better service. We have only three counties in Delaware. We have a million people.

We have county directors in each county. We have folks who do constituent service in each of our three county offices. We measure every month, we send out a customer satisfaction survey to the people that we have served through our county offices, and people can evaluate our service excellent, good, fair, poor or excellent. We do this every month.

For 22 years we are running—96 percent excellent or good. About three percent fair, one percent poor. If folks evaluate us, they come back and say that we were fair or poor, the service was fair or poor, we call them.

We call them and see, how could we do it better. None of them have mentioned AI to us yet in terms of doing better. But I just lay that down as a predicate. This is an important part of our jobs.

Folks think about what we do about here is we pass budgets and we deal with—foreign international issues. We also focus on a good customer service. This may be a way that we can provide even better service.

Question, Ms. Pahlka, Ms. Blauer, now that I have your names straight, what can Federal agencies do with the current tools at their disposal to deploy AI technology more efficiently in order to meet the evolving needs of the people we serve?

How will this improve the public's perception and satisfaction of government services? Ms. Pahlka.

Ms. PAHLKA. I just want to honor your focus on AI—focus on customer service in State of Delaware. I think that does so much to contribute to people's trust and faith in government and in democracy.

Thank you for sharing that. I think what you said about the successes in customer service without AI actually speak to something that each of us are trying to say, which is it is really about the foundation and the basics. Ms. Blauer mentioned leadership.

Dr. Noveck mentioned the infrastructure. We are not necessarily going to succeed or fail because of AI. We are going to succeed or fail because we have the right foundation to build on. We do not quite yet have that entire foundation. We need to keep building it. We need to build it faster.

There are all sorts of things that we should have done in the past decade or two, to bring customer service from the Federal Government into the Internet age and meet the expectations of the American public as they have been able to use services that become much more convenient for them.

You do not have to go stand in line anymore to deposit a check, you use your phone to do it. Expectations are risen, and we have to meet those rising expectations. Those things that we should have done to move us effectively into the Internet era they are unfinished business.

We still have to do them. We now have to do them quite quickly so that we can be set up to be a great customer service organization in the age of AI. Those things that are basic have to do with our human capital strategy.

They have to do with procurement. They have to do with the kind of leadership that Ms. Blauer talked about. I think we agree, and I very much appreciate your comments and your perspective.

Senator CARPER. Thank you. Ms. Blauer, same question. Just follow up. I think I saw you nodding your head as Ms. Pahlka was speaking.

Ms. BLAUER. Yes. Thank you for your very thoughtful question. As someone who would always measure whether or not what we were doing was effective in the State of Maryland by looking at what was being said about the Motor Vehicle Administration (MVA) on Twitter, I can say with great authority that it was also a very big measure for us as to whether or not the residents of our State were having their needs met.

I think the most effective implementation of AI is actually not felt at all by the public. It is working in the background to optimize an experience that is led with the good people that are helping usher in people through a process, that are connecting people to

services that they are trying to access, that are actually freed from a lot of the sort of bureaucratic processes that have been labored by regulations, by frameworks, by some artificial inflation of bureaucratic processes.

When we can skim those processes down and free up the public sector workforce to actually focus on creating those meaningful service delivery opportunities, that is when we are going to see the kind of combination of the power of AI and the ability for us to provide very responsible and very satisfying customer experiences.

I think the most frustrating implementations that I have seen to date have been where we are leading with a new chat bot or a new interface that is hard, that is difficult for people to navigate or to connect with, and where they feel even further distance between themselves and the work that the government is doing.

We have to think really strategically about how we achieve both of those ends by focusing on what is that experience, what do we want that experience to feel like in the moment, and then how can we relieve those frontline workers of some of those bureaucratic processes so that they can focus on that experience and let the AI work in the background to optimize it.

Senator CARPER. Great. Thank you both for the responses. Mr. Chair, thanks for holding this hearing. This is important stuff.

Chairman PETERS. Thank you, Senator Carper. Senator Hassan, you are recognized for your questions.

OPENING STATEMENT OF SENATOR HASSAN

Senator HASSAN. Thank you, Mr. Chair. thank you to our witnesses for being here, not only for your testimony, but for the work that you do. My questions are really going to be follow-ons or expansions of, I think, the questions you have heard, because there is a common focus among all of us about how we can maximize the potential of AI, but also protect the things that people care about in their interactions with government in the process.

Ms. Pahlka, I will start with you. In your testimony, you discussed how the Federal Government needs to build capacity and competency to deploy AI in a way that meets the diverse needs of each agency and improves service delivery. I am interested in a little bit more of the specifics.

What specific ways can agency leadership foster greater technological capacity and competency to deploy AI, while balancing each agency's ultimate mission? In particular, what can we do to develop AI-competent workforces?

Ms. PAHLKA. That is such a great question and thank you for asking it. I think that there are things that agencies need to do, and I think there is also things that the center of government needs to do to support them in doing it.

If you go into any agency today and you ask who is actually doing the customer service, who is doing the delivery, who is, say, creating the website that people are using, and I am sort of speaking in an Internet era answer right now rather than the AI answer, it is pretty much all contracted out and the number of people in an agency who have a real pulse on the actual mechanisms of delivery is very small.

You can go in and say, OK, there is so many teams I know right now who are doing really incredible work where they are building interfaces to government online for instance that really work for people, and they are struggling. You go in and say, great, this is amazing work, what do you need?

They say, well, we are a team of three, how many other people are working on this? 300, 3,000. What are they doing? They are writing reports. They are doing various kinds of compliance. But we really need to go look at who are the people doing this work. Do we have enough of them who have the right competencies and capacities? Part of what I mean by a human capital strategy.

There is a huge relook that we have to do on who we hire and in what capacity in government and really change things to be more oriented toward the capacities and competencies of delivery. Then we also need to be able to hire those people. I mentioned in my written testimony that it just takes too long to hire people today. And you know, the how to make that a shorter process is a very complicated question.

You see good movement around that right now with things like direct hire authority for agencies for AI enabled positions. Of course, it is much more than just experts in AI, right. It is all of the people who do the data, for instance or a wide range of AI enabling positions.

But we need to further ask, how can we speed the hiring of those positions? I now know literally hundreds of people from the private sector with exactly the competencies, capacities, and values that we want who want to come into government.

These are the people we need. They are really interested in a way that they were not as interested 10 years ago, but they are languishing in nine month processes and then we are losing them. Let us just look at who we need to hire and then figure out how to hire them quickly.

Senator HASSAN. Thank you. I think we could talk about this a great deal more, but I have a question for each of the other witnesses that I want to get to. To Dr. Noveck, we know the public expects better digital customer service from their government.

However, many Americans, including retirees, older individuals on Medicare or Social Security, veterans, or those who have just complex cases actually need to speak to a customer service representative to address these issues.

The whole panel has touched on this a little, but what are some of the ways that AI could supplement or complement the work of Federal customer service representatives so that they can focus on the people who actually need the human one-on-one case management or solving?

Ms. NOVECK. I think it is a great question. That is why in New Jersey, we are really using AI to support our call center workforce. We are not looking to offload people to phone trees and to put you in an endless loop of pushing buttons.

Quite the opposite. What we want to do is by listening to residents and understanding what it is that they need to know and want to know. Looking at what they are searching for on the web, what are the questions that they are asking. They call in and then we can put that information front and center, first of all.

Second of all, we can provide good responses to people on the web, and that is going to offload some of the easy questions such that they are not passing through to humans. If we can get rid of your simple question about when is this open or closed, or which form do I use, etcetera, and we are putting that front and center, that means that fewer people are needing to actually talk to a person, and as a result—so for example, on just one service, by reducing by 15 percent the number of queries coming through, we have increased by 50 percent the number of people that were then able to serve with that phone service.

But also for more vulnerable residents, whether they are non-native English speakers, whether they are elderly, etcetera, the more that we design things in a human centered way that is talking to and listening to residents about what do they need and what do they want, the more we can then take advantage of AI to do things like provide multilingual services, or for example, translate language, complex government speaking legalese into something at a ninth grade level or in simple terms.

Listening to residents using the data we have from what they tell us to then improve what we are putting forward, then means we are putting fewer things through to the call center and having more responsive, more human, and more conversational interactions.

Senator HASSAN. Terrific. Thank you so much for that. Ms. Blauer, one of the main benefits of AI is that it can make sense of vast amounts of data.

In terms of customer service, and you have touched on this a little bit, but this could help connect disparate pieces of information from all across the government to streamline benefit applications or answer regulatory compliance questions.

However, we cannot use AI to make these connections without adequate data-sharing policies or data-sharing infrastructure. We have talked a little bit about the privacy issues, which are real, but what are the main barriers that prevent data sharing across the government?

Ms. BLAUER. Thank you so much for this question. It is one that I spend a lot of time focused on. We have replicated the silos of government in the systems where data lives in government.

One of the actual promises and opportunities that AI presents is that it is making it much easier to actually link data sets together. Data sets that do not have the same types of metadata that connect them.

We may identify addresses differently in one platform, we may identify the name format differently in another, and when you work at that level, you can start to link those data sets together.

AI is actually very powerful in helping us do something that used to take sometimes years to do, which is to link data and to allow you to do that analysis. That is one of the things that I am very excited about.

But interagency data sharing agreements are critical. We need to clear the way for data to be able to be shared not just across agencies within the Federal Government, but also between the Federal Government, the State Governments, and city governments.

We need inter-agency—we need inter-governmental data sharing agreements that will free up our abilities to have data move through these complex webs of systems so that we can actually design the most impactful services. Right now, that does not exist.

Senator HASSAN. I will just note, and I am over time, and I note that, but as we talk about this capacity of data sharing, we also, to your previous answers, know that there are ways we can do that while protecting people's privacy, because obviously my constituents, I am sure all of our constituents, care a great deal about their sensitive personal information and their privacy.

But there are ways in these interagency agreements that look at the metadata to protect privacy too, right?

Ms. BLAUER. Absolutely. It is one of the best ways for us to protect privacy is to have these structures built around it.

Senator HASSAN. Thank you very much. Thank you, Mr. Chair.

Chairman PETERS. Thank you, Senator Hassan. Ms. Pahlka, your testimony mentions that our current Federal procurement framework is simply too rigid and that it prevents us from timely obtaining some technological capabilities like AI, as well as cloud computing.

But this issue is actually a major priority for this Committee, and we are in the process of looking at some reforms to the procurement process going forward.

My question for you is, is how can we change the framework to better obtain and use these essential capabilities like AI and cloud computing, and any other types of reforms that you think are essential for us to consider?

Ms. PAHLKA. Thank you so much for bringing up procurement. I know there are a bunch of procurement nerds listening who will be very excited that this topic is being spoken of in this chamber.

There are a bunch of procurement nerds because it is such a complex issue. The Federal Acquisition Regulation (FAR) is, as you well know, 2,400 pages, and the number of things that could be done to it to make it easier for contracting officers and people in charge of delivery in government are numerous.

I think in the time that we have today, what I would say is, it has to be simpler. Any time something has that many different provisions, you are going to have people fighting over interpretations of things. You are going to have people saying, we cannot use this, we have to apply this particular provision of it.

Ultimately, if it is a little bit simpler, I think people will be able to get the outcomes that they desire from a particular procurement more quickly. I think speed and flexibility are the two things that you should be designing for if you think about any kind of procurement reform.

There is a lot else, I think, to talk about there, but ultimately, what you want to end up with something that is not 2,400 pages. The great thing about this particular moment in time is that it is very hard to understand what those 2,400 pages actually mean. Now, there are many people are in government who really do know it backwards and forwards, but AI can actually help us suggest some simplifications to that.

It is part of the opportunity of this particular moment.

Chairman PETERS. Thank you, Dr. Noveck and Ms. Pahlka. We are going to ask both of you to respond to this question. Competition is absolutely critical to ensuring that the Federal Government uses the latest technology and gets good value for its purchasers as well.

My question to you is, what are some of the measures that we can take in Federal procurement to promote competition with these advanced technologies? Dr. Noveck, I will start with you, and then Ms. Pahlka.

Ms. NOVECK. I think Ms. Pahlka has already begun to touch on this question, the need for greater simplicity and greater streamlining to enable smaller vendors to be able to compete in this space.

One needs to not simply have mastered the General Service Administration (GSA) schedules which should not be the sole threshold to being able to do business with the Federal Government. Streamlining and simplicity is going to be incredibly important in this space if we are going to enable smaller people to compete.

I think, and GSA has been making strides on this with their wonderful guide on agile procurement that they have put out, also really trying to push forward what is known as agile procurement.

That is to say, not trying to anticipate every single requirement that we are going to have five years ahead of time in advance. These technologies are so new, our uses and experiences with them are so new, and designing tools correctly means actually doing it in little increments, testing what is working, and improving.

The more that we are streamlining by going smaller in the scope, being more agile, and ensuring that we are actually then refining as we go, I think the more that we are going to both open things up to procurement, but also ensure that the tools that we are procuring translate into better services and better customer experience.

Where we make the mistake is that, again, I am going to anticipate everything that we need five, 10 years down the road, again, on technologies that are changing now really by the day, if not by the week, and there are new capabilities emerging all the time.

We can use again AI to help us in conceptualizing and drafting some of those requirements, but we need to be able to make more agile procurement the norm rather than the exception.

Chairman PETERS. Thank you. Ms. Pahlka.

Ms. PAHLKA. I think Dr. Noveck said 90 percent of it. If I can just plus 1,000 that. All I would add to it is, there is some controversy over the notion of open source AI. I think in the kinds of contexts we are talking about, the dangers are much less, and the benefits can be pretty big.

AI could have the effect of real consolidation of power because it is so hard to create these models. The investment that OpenAI put into Chat Generative Pre-trained Transformer (ChatGPT) is staggering.

They have a lot of power because of that. The more that we can actually look at models that are more distributed, more democratized, and that is going to mean oftentimes open source, and make sure we can consider those when we are trying to find a solution in government, the more we will be I think promoting competition broadly in technology.

Chairman PETERS. Good. Ms. Blauer, this question is for you. We know that a lot of innovation occurs at the local level and State Governments. My question for you is how are Mayors and local officials approaching the procurement of AI systems in their cities, in their communities, in their States? Maybe give us some specific examples for the record.

How can we learn from their work specifically? What are some lessons that we should take to heart here?

Ms. BLAUER. Thanks so much for the question. For this one, I think it is important for us to look at local examples because there is some really promising practices, particularly around outcomes based procurement.

AI has the potential to deliver value across a whole host of outcome areas that we really care about, and local governments are leading with outcomes based procurement. Instead of scoping what the technology need is, I think it is prudent for us to think about how can we partner with AI developers and with AI platforms to actually achieve some of the most pressing outcomes that we have been trying to crack for generations?

In places like Seattle, where they are using outcomes based budgeting model in order to advance how they fund homeless services or cities have been using outcomes based procurements in order for them to instead of having the provision of how you deploy light-emitting diode (LED) light systems across your city system, have the light bulb providers buy into your energy efficiency goals.

Outcomes based procurements have the ability for you to actually scope AI, actually scope technology interventions in a way where you are partnering with the organizations for the actual improved customer experience, for the actual reduction in greenhouse gas emissions, for the actual system safety and preservation outcomes you want to see across your transportation structures.

If we can pivot out of the silo of procurement, being totally focused on the technology and get the technologists to partner with you through the procurement vehicles on the outcomes, it will be transformational. We are seeing it in cities. I think it is absolutely possible also at the Federal level.

Chairman PETERS. Wonderful. The next question is going to be for all three of you. I will start with Dr. Noveck and then Ms. Pahlka, and then Ms. Blauer, you can wrap it up for this question. Studies have indicated that roughly 45 percent of chief data officers believe that they do not have the responsibilities for AI at their individual agencies.

Yet, quality data is absolutely key to quality outcomes, as we all three have already discussed and we are well aware of. My question for you is, how can the Federal Government ensure that Federal Chief Data Officers (CDOs) are involved in the efforts to actually improve the delivery of services with AI? Dr. Noveck.

Ms. NOVECK. I think the question suggests the answer, which is ensuring that they do. As we have all talked about, data is of course integral to training AI models. Without data to analyze, the AI becomes fairly useless.

What we are trying to do is actually use data to ensure that we are proactively delivering services in the way that Ms. Blauer already talked about. I think having Chief Data Officers at the table

is really essential and mandating that their role includes, again, the proactive publication and availability of data, as is already required by law, and ensuring that we do more of that.

That is going to require then more training, I think, for chief data officers and for data professionals in government around AI to talk about where those collaborations can occur.

Ensuring that agencies do create those cross-functional teams and that cross-agency collaboration, as well as within agencies and then across agencies to ensure that these new AI officers, data officers, policy people, everywhere that we can bring disparate disciplines together to talk about how we can better serve residents, I think the better job that we are going to do.

I think the question is really vital because it suggests the answer, which is we need the data people to be at the table, and we need to invest in the proactive publication and availability of data is really integral.

Chairman PETERS. Thank you. Ms. Pahlka.

Ms. PAHLKA. My colleagues at the table here are national experts on this, and I would like to cede my time to Ms. Blauer there. Both of these folks have so much experience in this topic.

Chairman PETERS. Great. Ms. Blauer, you have the final say on this question.

Ms. PAHLKA. All right. Thank you to both of you.

I was not a classically trained data person when I became essentially the *de facto* Chief Data Officer of the State of Maryland. What I was someone who understood what it meant to work in government.

I connected to the people of the front lines of government, and I was able to usher in a transformation of data use in government because I could relate to the challenges that the people in the organizations were trying to solve. I knew what it was like to be a probation officer, to sort of sit under the crushing weight of that bureaucracy.

When we think about how we attract CDOs into our government, if we are only hiring technologists into those roles and not people that have the softer skills, that can be deferential to subject matter expertise that exists in your government, that can actually connect and translate from the technology to the policymaking, to the legislative agenda setting, to the budget making, to all of the things that we know are the levers of government that are going to create change, then we are doing a disservice both to the position of CDO and to government itself. CDOs need to be able to have those rounded expertise so that they can, like I said, connect to the people who are delivering for your government and also for those that are leading change in your government.

Where we have seen failures, both at the local and State level, is when we place a CDO in an information technology (IT) agency and their role is sort of ordained just to be the person that hounds people to move data or to get data express for other use.

Where we have seen great success is where they are empowered from a leadership level, and that they are materially part of the big substantive change that government is embarking on.

Chairman PETERS. Right. Thank you. Senator Butler, you are recognized for your questions.

OPENING STATEMENT OF SENATOR BUTLER

Senator BUTLER. Thank you, Chair Peters. Thank you to all of you for participating. So great to see a Californian on the panel.

For that reason, little hometown love, I would love to sort of start with you, Ms. Pahlka. We are one of the most diverse States in the country, representing 40 million Californians and a vast array of racial diversity, ethnic diversity, and language diversity.

We, given our size and scope, our diversity that makes us such a great State, the challenges of making government work for California residents is a challenge that you have taken on behalf of Governor Newsom and our Employment Development Department (EDD) team.

I am curious about the ways in which these technologies can be deployed to further accessibility, as well as just getting people what they need on an everyday basis. The pain of getting a driver's license.

The pain of getting a passport, or getting your call returned. Talk with me a little bit, share with the Committee a little bit about how we can embrace all that makes us great, our diversity, and all of the things that really make our country the melting pot that it is, and deploy technology in order to make our government, again, more accessible for those whose first language may not be English, and make sure that it works in a way that people can get exactly what they need when they need it.

Ms. PAHLKA. That is that is an inspiring question, thank you. I am glad that it came from our Senator from California. We have mentioned earlier that translation is one of the things AI is fantastic at.

When I worked on the task force for unemployment insurance during the pandemic, translation of the whole process, not just the application form people would use online—of course, we had a problem with the call center, but if you were able to call, were you able to get through and talk to somebody in the language that you knew so that you could actually get the help you need to get your unemployment insurance check?

Of course, we are at a moment in time when there are tools available that could make that a lot easier. I have spoken before about the need to streamline procurement so that tools like that could be procured more easily. I also think it is really important to recognize that when people call, they do not just want to be able to talk to somebody in their language, they actually need an answer.

It is wonderful if someone can pick up the phone, but much better if they can say, your check is coming. In order to do that, I do think we need to simplify the policies and processes and regulations that a program like unemployment insurance is staggeringly complex for something that really is not that complicated.

We are going to take your pay, your previous pay and some portion of it, and you are going to get that when you are out of work. We have made it into 10,000 pages of regulation. I mentioned how people working at the EDD in California were still learning the ropes after 17 years.

Of course, it is hard to get an answer under that incredible burden of complexity, and we happened to be at a moment in time

when AI could help us reduce that complexity. It cannot do the work for us, but it can help us understand what is in those 10,000 pages, suggest simplifications, and then lawmakers could work to make that a program that is a little bit easier to administer.

When I worked on unemployment insurance, and I hope that speaks to your question, not just the particular example, but we had a Legislature who passed a law right when we were trying to get through that backlog that was designed to help people who did not speak English.

As much as I am a fan of the need to do that and feel very connected to the need to serve those folks, it was an example, I felt, of adding a mandate when what was needed was enablement.

One of the things we could have done at that time to subtract rather than add, would have been to remove the requirement that call center agents had to get permission before they could use the translation service that was currently available.

Instead, we said, here are new mandates for translation of the website, which distracted, frankly from the ability of the EDD at that moment in time to work through the backlog. The thing they needed to do the most at that time was get checks to what turned out to be 1.3 million people.

Sometimes we need to recognize that we have to have priorities in order to serve people. There were many people in that 1.3 million claims backlog who were underserved, represented the diversity of California, and they actually did not need at that moment a different way to read through this web form, which was already so complicated.

The language in it was so complicated in English, that translating it into another language was not going to help. What they needed was their check. Sometimes we need to have better communication between agencies and legislators to understand what is the thing at this moment in time that will enable the right outcome and set some priorities and have the translation stuff come later.

I hope the translation stuff does come later, but I also hope we use the tools of AI to do it, instead of doing it in the mode that we have been doing it over the past 10 years.

Senator BUTLER. Thank you.

Ms. PAHLKA. Thank you.

Senator BUTLER. Very responsive to the question, and a continued incredible example for California. My last question, I want to quickly move from maybe customer service to thinking about helping you help us to think about how to better create the guardrails, enable the tools to also supplement direct services, and challenges that we have as a Nation.

Across the country, there is both a mental health crisis as well as a mental health worker crisis. I was reading, Los Angeles being one of the largest mental health providers in the country, that they also have more than 1,800 vacancies in mental health provision.

But have been reading a lot, I have, about chat bots that are being able to be deployed to offer initial support, where we may not have a worker at the ready to support the kind of one on one interaction that is required during mental health counseling and services.

Nationally we have is, at the Federal level, a national health care worker task force, understanding that we have a shortage around the country and a challenge that we have to address.

Can you talk more, either of you, about the deployment of artificial intelligence, the usage of chat bots in a way to support the existing workers and their work, even as we have these sort of challenges of attracting more and creating more opportunities for workers in the space.

Ms. NOVECK. It is such a wonderful question and I want to combine it with some of our focus also on government customer service here. I think one of the exciting things about these technologies is that they are what is sometimes referred to now as multimodal. That is to say, they talk as well as they type.

That means we have conversational agents, a tool I am thinking of like Pie, which was designed by the person who actually created the United Kingdom (UKs) largest helpline for Muslim youth, precisely in order to offer that responsiveness, that sense of talking to a person, which can really provide a lot of psychological support for people in the first instance.

We are seeing this ability not only to give people chat bots in the sense of typed responses to questions, whether it is for residents or whether it is for employees, but also spoken responses to questions to provide that added level of customer service.

I think that is hugely important, whether it is in the mental health space, which is outside my area of expertise, or whether it is in the government customer support area. This ability now to provide people with that kind of responsiveness, I think is a hugely important and we are going to see the use of these tools only grow.

Of course, we need those guardrails to ensure that we are confident about what the information is that is being provided to people, that we are not taking advantage of people in a vulnerable state.

That is why doing things in a human centered way, whether that is with residents or whether that is also with government workers and government employees, talking to them about what do they need and what will actually help them is really crucial. Last point here is, what is exciting about a lot of these tools is you can also train them to respond on a specific corpus of information.

It is not the world of ChatGPT and the open web that we know where it might pull from anywhere on the Internet. But rather the idea now, for example, that my students are working with the Massachusetts Department of Transportation (MassDOT) to say, let us upload their manuals, their procedures, their policies, and then provide a tool so that new engineers coming into the agency can ask a question like, what is the rule on this or what is the policy about that, and to pull the answers only from those documents.

That helps provide an added level of safety and security, to be sure that we know what the answers that people are going to get. Provides that conversational element. Again, it provides that opportunity, though, to make it a much easier than reading 1,000 documents and having to pore through them, enabling those new employees that we are bringing in not to burn out quite so fast, but instead to be excited about the opportunity to do public service.

Chairman PETERS. Thank you, Senator Butler. Dr. Noveck, New Jersey is one of the first States to develop guidance on how employees should use AI. If you would, for the Committee's benefit, kind of describe that guidance. More importantly, perhaps, how is it actually working in practice?

Ms. NOVECK. Thank you. I am very excited, and Governor Murphy gave his State of the State speech yesterday, in which the topic of use of AI, responsible and ethical use of AI featured very front and center.

I am very proud that we are one of the first States to actually have clear guidance, which says we want people to go out and try these things. It is not to say that we will not revise that guidance, and we will not upgrade it, and we will not change it as we learn better what these tools do and as they evolve, but the fact that we are going out and saying we want people to actually try this to the end of improving how we deliver services to residents.

We are coupling, however, that encouragement to try things with broad scale availability of training. I lead a partnership of multiple States, including California, called Innovate US, run by public servants for public servants, where we are providing free training in responsible AI and other technology use to government workers.

I might say my co-panelists here have been or will be soon, speakers who have been helping us to train government workers at no cost to public servants. I think that is really important. Right now, OPM has a mandate whereby they have to use fee recovery to charge for training that they provide to government workers.

We want to ensure that the training we are providing is actually free, so that there is no disincentive to using it. But coming back to the policy question, we are telling people, go out and try these tools, but ensure that when you are trying them, please do not enter any personally identifiable information.

Please factcheck anything that comes out of these tools. We do not want to see those instances like the lawyer who filed the brief that still said in it, written by ChatGPT. We want to be sure that you are actually fact checking what is coming out of these things in the way that you would if you asked an intern to write something.

We want to also be sure that people are taking advantage of these tools in ways that are actually supplemental to and aiding, as Senator Butler referred to, actually aiding government workers in how they do their work, not supplanting them.

Ensuring that we are using AI as an auxiliary to workers is very important. But again, undergirding all of that is training, training, training, and training.

Chairman PETERS. OK. Ms. Pahlka, your book, *Recoding America*, outlines the disconnect that can occur between policymakers, policy implementers, and the general public. My question for you is, how can government actually prioritize the customer when it comes to service delivery in the life cycle?

Ms. PAHLKA. I think this is so critical that we have a fundamental shift in what we value in order to put the customer at the center.

I know this is a very high level answer, but we have to value delivery as highly as we value policy, both here on the Hill and in the agencies, and to the points earlier, in States and in cities.

We are very focused here on the words that we write, and we forget that the people on the other end do not look at those words. They go on a website and try to get unemployment insurance. They are trying to get their driver's license or God forbid, they are in our criminal legal system and they are experiencing incredible burdens.

They see delivery. As I said, our human capital system in government broadly, not just in Federal Government, is not set up to value that. We are set up to write words and hire contractors.

I believe that putting the customer at the center of government is going to involve a pretty high level shift to thinking about what is it that government actually does, what is our function, and valuing what it looks like to the person at the end this incredible waterfall hierarchy, as much as we do the business of actually writing policy.

Chairman PETERS. Thank you for that. I would certainly like to thank all of our witnesses for your time and for being here today, and I am certainly grateful to your contributions to this important discussion.

Delivering services to the American people is a core function for all levels of government. Long lines, slow customer service, complicated applications for Federal services hurt the public satisfaction, as well as the trust that they have in their government.

As I think we have heard very clearly today, artificial intelligence can help make service delivery more efficient, more effective, and accessible. Our witnesses emphasized that strong data infrastructure, a trained workforce, and proper privacy safeguards can ensure that the government is ready for these new AI powered tools.

We also know that developing the right procurement frameworks and recruiting the best talent is going to be needed for wide and successful AI adoption.

As Chair of this Committee, I will continue to find ways to build a more efficient and more effective government for all Americans, and your testimony today will help inform the Committee's future legislative activities, which are forthcoming.

We look forward to your thoughts on that legislation as it is being developed, as well as our oversight actions that we take regularly throughout the Federal Government.

The record for this hearing will remain open for 15 days until 5.00 p.m. on January 25, 2024, for the submission of statements, as well as questions for the record. This hearing is now adjourned.

[Whereupon, at 11:16 a.m., the hearing was adjourned.]

A P P E N D I X

Chairman Peters Opening Statement As Prepared for Delivery Full Committee Hearing: AI and Service Delivery January 10, 2024

We all interact with the government throughout our lives. Whether it's applying for a small business loan, receiving financial aid to pursue an education, accessing essential health care, or applying for Social Security, our citizens turn to the government for all kinds of critical services.

As elected officials, we must ensure that agencies provide those services as effectively possible. AI can help us succeed in that work. This technology has the potential to make government services more efficient, effective, and accessible for all Americans. For instance, AI can easily translate crucial documents into multiple languages. It can operate 24/7 chatbots that provide our citizens with interactive assistance. It can allow employees to tackle more requests, in less time, with greater accuracy. AI can make complex processes easier to navigate.

The government's use of AI to deliver services is not new. Three decades ago, the U.S. Postal Service used it to create a faster mail delivery process. Today, in my home state of Michigan, AI tools are providing translation services for citizens applying for permits and licenses. This technology is already making a difference in the lives of countless American citizens.

But this is a watershed moment for AI. These technologies grow more advanced nearly every day, reaching more and more aspects of American life. That's why, in just the last year, I've convened five hearings on artificial intelligence – and passed legislation out of this committee to address the challenges and opportunities posed by AI.

This builds on my previous legislation to provide educational opportunities on AI, establish adequate training resources, and provide agencies with guidance on how to implement AI tools most effectively.

This Congress, our committee has passed my bipartisan *Improving Government Services Act* to encourage federal agencies to adopt proven customer service tools to help ensure Americans get the assistance they need. This bill builds upon the hearing we convened last Congress to explore ways agencies can build trust by improving customer experience.

This is a key moment to understand the capabilities of AI – and how it can benefit both government employees and the citizens they serve, and under what circumstances.

This hearing will help us do just that. We will examine the ways that AI can help deliver critical services and improve the public's experience in receiving them. We will outline the guardrails that this technology requires: the training resources, privacy standards, and performance metrics we need to properly implement AI tools. And our expert panel of witnesses will help us understand how this can happen at all levels of government.

We have a responsibility to do everything we can to ensure government provides the most effective and efficient government services. Succeeding in that work will help our constituents – it will improve trust in government and strengthen our democratic institutions.

This hearing is an opportunity to examine how artificial intelligence can help us achieve that mission.

TESTIMONY OF JENNIFER PAHLKA, FORMER US DEPUTY CHIEF TECHNOLOGY
OFFICER, SENIOR FELLOW, FEDERATION OF AMERICAN SCIENTISTS AND THE
NISKANEN CENTER
BEFORE THE COMMITTEE ON HOMELAND SECURITY AND GOVERNMENT AFFAIRS, U.S.
SENATE
ON HARNESSING AI TO IMPROVE GOVERNMENT SERVICES AND CUSTOMER
EXPERIENCE

JANUARY 10, 2024

Chair Peters, Ranking Member Paul, and members of the Committee, I appreciate you inviting me here today to speak on this critical topic.

How the US government chooses to respond to the changes AI brings is indeed critical, especially in its use to improve government services and customer experience. If the change is going to be for the better (and we can't afford otherwise) it will not be primarily because of how much or how little we constrain AI's use. Constraints are an important conversation, and AI safety experts are better suited to discuss these than me. But we could constrain agencies significantly and still get exactly the bad outcomes that those arguing for risk mitigation want to avoid. We could instead direct agencies to dive headlong into AI solutions, and still fail to get the benefit that the optimists expect. The difference will come down to how much or how little **capacity and competency** we have to deploy these technologies thoughtfully.

There are really two ways to build capacity: having more of the right people doing the right things (including but not limited to leveraging technology like AI) and safely reducing the burdens we place on those people. AI, of course, could help reduce those burdens, but not without the workforce we need – one that understands the systems we have today, the policy goals we have set, and the technology we are bringing to bear to achieve those goals. Our biggest priority as a government should be building that capacity, working both sides of that equation (more people, less burden.)

Building that capacity will require bodies like the US Senate to use a wide range of the tools at its disposal to shape our future, and use them in a specific way. Those tools can be used to create mandates and controls on the institutions that deliver for the American people, adding more rules and processes for administrative agencies and others to comply with. Or they can be used to enable these institutions to develop the capacity they so desperately need and to use their judgment in the service of agreed-upon goals, often by asking what mandates and controls might be removed, rather than added. This critical AI moment calls for **enablement**.

The recent executive order on AI already provides some new controls and safeguards. The order strikes a reasonable balance between encouragement and caution, but I worry that some of its guidance will be applied inappropriately. For example, some government agencies have

long been using AI for day to day functions like handwriting recognition on envelopes or improved search to retrieve evidence more easily, and agencies may now subject these benign, low-risk uses to red tape based on the order. Caution is merited in some places, and dangerous in others, where we risk moving backwards, not forward. What we need to navigate these frameworks of safeguard and control are people in agencies who can tell the difference, and who have the authority to act accordingly.

Moreover, in many areas of government service delivery, the status quo is frankly not worth protecting. We understandably want to make sure, for instance, that applicants for government benefits aren't unfairly denied because of bias in algorithms. The reality is that, to take just one benefit, one in six determinations of eligibility for SNAP is substantively incorrect today. If you count procedural errors, the rate is 44%. Worse are the applications and adjudications that haven't been decided at all, the ones sitting in backlogs, causing enormous distress to the public and wasting taxpayer dollars. Poor application of AI in these contexts could indeed make a bad situation worse, but for people who are fed up and just want someone to get back to them about their tax return, their unemployment insurance check, or even their company's permit to build infrastructure, something has to change. We may be able to make progress by applying AI, but not if we double down on the remedies that failed in the Internet Age and hope they somehow work in the age of AI. We must finally commit to the hard work of building digital capacity.

History of Digital Enablement of Services in Government

Customer experience changed dramatically during the Internet era – we no longer wait in line at the bank to deposit a check or at the airport for a taxi. Many of the interactions we used to think of as customer service have disappeared, submerged into a layer of technology and data that answers the questions customer service used to ask. Who are you? Your bank knows. Where are you? Your ride hailing service knows. The public mostly likes these changes, but more importantly, it expects them. It now feels odd, even a little scary, to be asked questions the institution should know the answer to. It's hugely frustrating to wait weeks, even months, for an answer that you know relies on some basic math a computer could do in nanoseconds if it just were just allowed to process the data you have just given it. "This isn't that hard," the veteran says as his application languishes in a backlog. We've made a lot of progress, but we are still struggling to gain the benefits the Internet era offered, (the White House recently wrote that only two percent of government forms are available online!)¹, and the next era is already upon us.

How did we get here? A little history helps explain. Starting as far back as the 1960s, but particularly in the 1990s, when companies like Amazon and Google were emerging, leadership in government (both Democrats and Republicans) mistook what ultimately proved to be a

¹ Why the American People Deserve a Digital Government, Clare Martorana, Federal CIO, September 22, 2023
<https://www.whitehouse.gov/omb/briefing-room/2023/09/22/why-the-american-people-deserve-a-digital-government/>

massive digital revolution for a mere tactical shift in the tools of implementation. Tools are things you buy, so leadership saw digital as a problem of purchasing. Instead of recognizing that no institution, public or private, would be able to operate effectively in the coming decades without basic digital competence, and therefore hiring people who understood this brave new world, our government developed extensive processes and procedures for *buying* digital technology as if it were simply a commodity. Today, as we bemoan the lack of expertise in highly specialized, complex domains like advanced software, it's worth noting that the inner workings of procurement seem as specialized, complex, and mysterious to the layperson as the inner workings of an AI model. Government is clearly capable of developing capacity in specialized domains. We just picked the wrong ones.

We have treated digital much like we treat pens, paper clips, or vehicles that the General Services Administration buys for agencies: we don't need to know how it works, we just need to acquire it. Once we've acquired it, other than perhaps a maintenance contract, we're done. Today, though it takes us a painfully long time to do so, government knows how to acquire static software. What we need to acquire are capabilities.

Flexible Capabilities

Like most of what I will cover today, buying static software like we buy pens or cars was not a good idea in the Internet era, but it is a catastrophically bad one in the AI era. Software systems were always less static than our procurement frameworks allow for, and AI is orders of magnitude more dynamic. AI systems have all the dynamic characteristics of the previous software era, but are literally learning all the time, and therefore constantly changing in ways that we don't entirely understand. Therefore, responsible and effective use of AI *must* involve constant learning and testing in the real world. Academics have shown, for instance, that an AI system developed on one university's hospital patient data can perform radically differently if deployed to a different hospital setting or as patient profiles change over time². Our current "once and done" frameworks don't allow for this ongoing evaluation, and our workforce is not suited to these challenges. We cannot simply engage procurement officers to evaluate and purchase a system like that, and hope it works out. AI demands agility and competence in ways we can no longer afford to ignore.

To illustrate the limitations of our legacy government procurement frameworks, it might be helpful to hear an example of what it's been like for government technologists trying to guide a previous transition: the move to the cloud. One of the early recruits to 18F, Jez Humble, was working with a contracting officer in an attempt to purchase cloud services. Jez had prepared enormous amounts of data in advance of meeting with the contracting officer, but in the meeting, he found that he lacked the one piece of information the officer needed: how much these cloud services would be used. The officer could not put out a bid to procure a service if he didn't know how much he would be asking for.

² Wu, Eric, Kevin Wu, Roxana Daneshjou, David Ouyang, Daniel E. Ho, and James Zou. 2021. "How Medical AI Devices Are Evaluated: Limitations and Recommendations from an Analysis of FDA Approvals." *Nature Medicine* 27 (4): 582–84.

One of the key advantages of cloud computing, of course, (though not the only one) is the flexibility it offers. Instead of having to guess how much infrastructure you'll need well ahead of launching, say, a website, and buying what you hope is the right number of servers and the sufficient bandwidth, you can essentially rent a flexible amount of capacity from a cloud computing provider and only pay for what you use. If traffic is less than expected, you save money. If it's more, you pay more, but at least your website stays up as the cloud provider seamlessly handles the extra load. Jez couldn't tell the contracting officer how much "cloud" he needed to buy, because not knowing is exactly the point of this technology. Jez was looking to acquire a cloud capability; contracting could only acquire a fixed, known quantity.

The contracting officer wanted to help Jez, but continued to insist that nothing could move forward without specifying a fixed amount. Jez explained the value of the cloud computing model in every way he knew how. It's a bit like gas for your car, he tried, to no avail. They went back and forth for over two hours. Finally the contracting officer took a deep breath and said, "Let me explain how contracting works in the US government. We put in an order for 100 sandbags, we get 100 sandbags." And the conversation was over.

Jez did ultimately succeed in buying cloud services (at terms far less favorable than the private sector because of government's bespoke needs), but the process took orders of magnitude more effort, time, and money than it would have under a less rigid procurement framework. This rigidity has been a huge hindrance to the ability of government to serve its people; it will be even more obstructive if we hope to use AI. To ease that rigidity, we will need to provide agencies more flexibility, not less. We will need to enable more than we mandate.

Data Ownership

Another example of how procurement will need to change is illustrated by our problems with data ownership. Processes for software acquisition over the past several years, grounded in misguided assumptions about how to evaluate vendors, have failed time and time again to ensure government's access to its own data. Without data, there is no AI. The Office of Management and Budget's (OMB) guidance to agencies about implementing the AI executive order stresses the need to treat data as a critical asset and ensure that contracts retain sufficient rights to data. This is essential moving forward, but there are few government agencies who can confidently say that they have those sufficient rights now, on both a legal and practical basis. (Sometimes, agencies seem to have the appropriate rights on paper, but when it comes to accessing data from their vendor, they find there are barriers, including but not limited to additional, unbudgeted costs.) This is particularly problematic when it comes to the equity audits that are now required for certain uses of AI by the new executive order.³ The majority of agencies now filing equity action plans lack the data needed to do so, some of which (but not

³ Gupta, Arushi, Victor Wu, Helen Webley-Brown, Jennifer King, and Daniel E. Ho. 2023. "The Privacy-Bias Tradeoff: Data Minimization and Racial Disparity Assessments in US Government." In *Proceedings of the 2023 ACM Conference on Fairness, Accountability, and Transparency*, 492–505.

all) is due to vendor control. In the meantime, for this reason and many others, adoption of AI to improve services will be stalled.

Once again, we have an issue that's been problematic in the past, but becomes orders of magnitude more problematic in the AI era. Vendors will have even more powerful ways to stifle competition, lock agencies in, and skirt appropriate transparency and oversight unless government finally recognizes the value of its data and moves decisively to retain it. Vendors can be incredibly valuable partners in the mission, but the coming era requires government to step up and create the rules of the road for vendors to follow that truly serve the public.

Reducing Burdens

Jez's experience is also a great example of what I mean when I say that the other half of building capacity is reducing the burden on the people you have. Jez represents exactly the kind of talent we needed (and still need) in the Internet era: expert in the latest technologies, mission-driven, and a creative thinker. His counterparts in AI are the kind of people we seek to recruit today. And we succeeded in getting him to work in government for a time, between his tenure at hot start-ups and companies like Google. But he spent most of this time in government not deploying the latest technologies to improve government services, but fighting bureaucratic and administrative battles. The American people got some fraction of the value we could have had from Jez. We must not only recruit the right people, but do whatever we can to make it possible for them to do the job they came to do.

This imperative is not limited to tech workers. To improve customer experience, we will need far more people who understand data and technology. But what the public wants from customer service is answers: Where is my check? Why did I get this IRS notice? If we use AI just to make it easier to talk to government, but not to get those answers, we will fail. The key reason those answers are hard to come by is the enormous complexity of government programs. I worked on California's unemployment insurance crisis during the pandemic, and encountered what is close to 10,000 pages of regulations governing what could be a relatively simple program. A claims processor working with my colleague kept calling himself "the new guy" because he was still learning the ropes. He had been with the agency for *17 years*. But recall that unemployment insurance dates back to the 1935 Social Security Act. We've been adding rules and mandates for close to 90 years now. We almost never remove them. It's no wonder the program is still in peril. It is collapsing under its own weight, weight that federal and state agencies can't shed on their own.

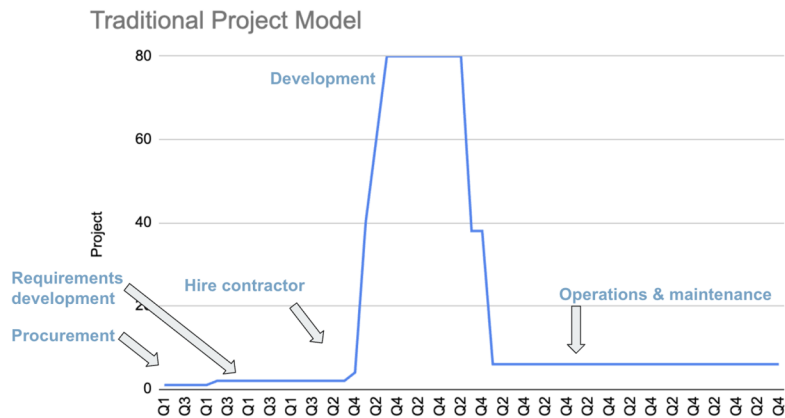
It is tempting to say that AI will help us by understanding those 90 years of accumulated policy craft for us. This is appealing in the short term and very dangerous in the long term. We can't have a government so complex that one algorithm talks to the other at such a level of complexity that humans are out of the loop. Think about this problem in the context of the Department of Defense, where navigating the complexity and sheer volume of Pentagon policy — equivalent to 100 copies of "War and Peace" — slows everything from acquisitions to hiring to logistics to combat operations. I, for one, am not eager to live in a world where only AIs can

tell our uniformed service members when they can and cannot shoot. But we can, and should, use AI to suggest dramatic simplifications to these overwrought frameworks and make those new leaner frameworks the law of the land. The greatest gift this body could give to the agencies and the American public they serve is a massive, thorough decluttering and spring cleaning. AI makes it possible, but only you in this chamber can make it happen.

Funding

Government procurement is a poor fit for competence in AI, but funding is upstream of procurement, and equally ill-suited to the task, in similar ways. Not only do we procure software as if it were static, we also fund it that way, and thus make it both worse and more expensive. This is best illustrated through a series of graphs, each one fictional but representative of two fundamentally different approaches to funding software (in both the current and coming paradigms.)

Government follows a “project” model. The following graph shows the number of staff who work on an IT project at its outset, as requirements are being developed, a request for proposal written, bids from contractors sourced and evaluated, and a winner chosen. The contractor, once hired, brings a team to develop the software based on the RFP, and the staffing levels (counting both internal and contracting staff) shoot up. There is a development period, followed by a short period of “user acceptance testing,” and then the project falls into “operations and maintenance,” which is generally a different “color of money” than the development funds.



Contrast this with a typical “product” model, in which, instead of a requirements gathering phase up front, a small team, often but not always internal to government, conducts what are called discovery sprints to better understand the problems the software is supposed to address. If some parts of the proposed solution are riskier than others (for instance, it’s not clear whether a

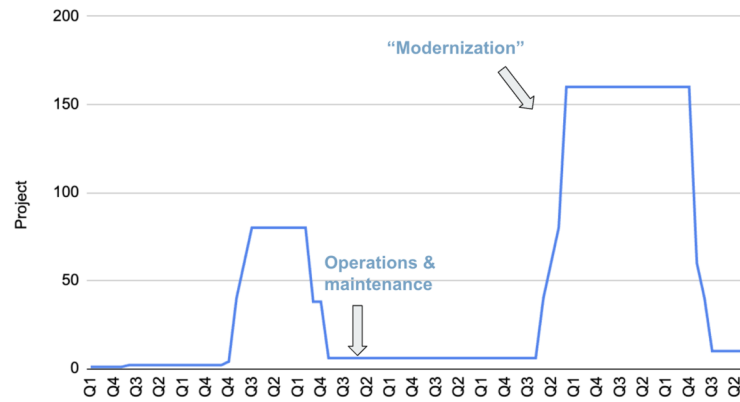
data integration will work well), they find ways to test those problems first, before an entire software solution has been built. They may develop prototypes to help question their assumptions, and they engage with users from the beginning. Product teams almost always leverage contractors, but the contractors are there to complement a core internal team which holds the product vision and provides clear direction to vendors. Staff is added slowly over time as the team learns what they need, but doesn't dramatically ramp down once a first or even second version is shipped. As my colleague Dave Guarino quips, "Google didn't lay everyone off after they put up search." Indeed, they invested more.

Project vs Product



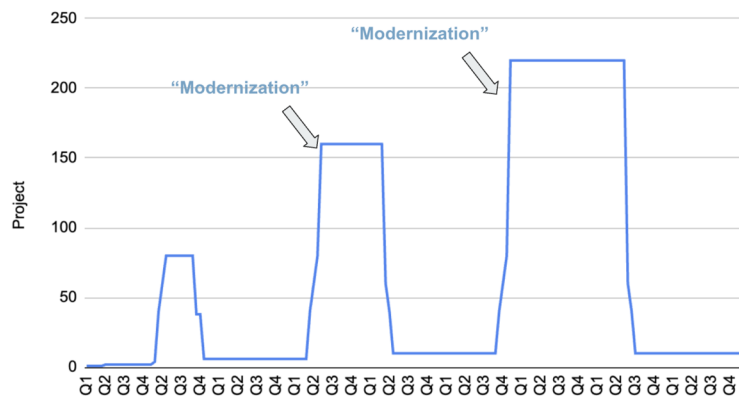
At this timescale, there seems to be an obvious reason to prefer the project model: the minimal ongoing expense. But as anyone following government technology appropriations knows, this is not the right timescale to look at. What happens next on the project line is one or more of the following scenarios: the software doesn't work well for its users, and funds are sought to fix its defects; it quickly becomes outdated, either by changes in the technical environment, the policy environment, or other external factors, and funds are sought for modernization; or new needs have emerged that the existing software doesn't address. Thus, the actual project model line looks more like this in the medium term:

Traditional Project Model



And then in the longer term, as modernizations fail, needs escalate, and even more money is allocated, like this:

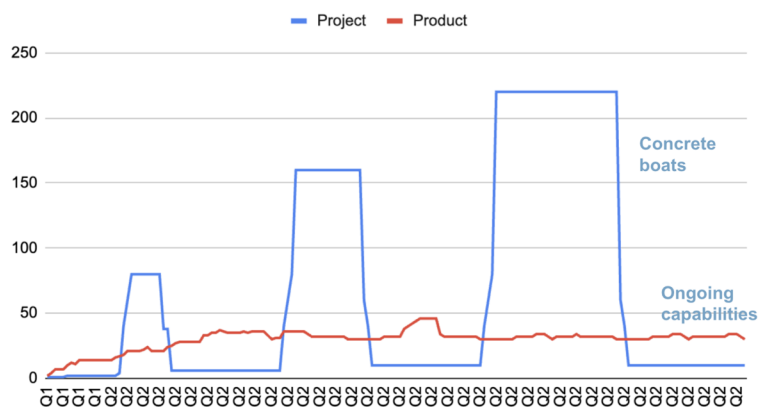
Traditional Project Model



Here is where the slow and steady product line starts to look more attractive, on a purely cost basis, though cost is far from the only reason to prefer it. Having a consistent team over time may look like an unwanted ongoing expense, if we assume that development work at some

point “is done,” but that is not the case. (“Software is never done” was one of the precepts of the Software Acquisition Practices report I contributed to for the Defense Innovation Board under President Trump⁴). The product model is not only less expensive in the long run, it results in working software that rarely needs “modernization” of the kind you’ve become used to hearing about because it’s constantly being updated and improved. The biggest difference between the project and product models is that the steady investment over time delivers effective service to the American people. Periodic investment in “projects” is how we get backlogs and confused and frustrated constituents.

Project vs Product



⁴ <https://innovation.defense.gov/software/>

A summary of the differences in these models is below:

<u>Project model</u>	<u>Product model</u>
Episodic large investments	Ongoing moderate investment
Heavy reliance on procurement, oversight, and IV&V	Requires internal product ownership and management
Abdication of responsibility to vendors	Partnership w/vendors
Vendor lock-in	Low switching costs, smaller contracts
Acquiring static software	Acquiring ongoing capabilities
Constant loss of knowledge	Constantly growing understanding
Customers consulted at end	Customers integral at all times
Built in silos	The walls come down
Subject to the “100% trap”	85% to start costs 10% of the price
High rates of failure and frustration	Actual working software

As much as it's tempting to hold agencies accountable for their addiction to the project model, this is not something they can fix on their own. Congress would need to enable ongoing funding streams (in addition to procurement changes previously discussed) in order to see agencies develop in the product model. Given all that we know about how fast AI moves, the risks it carries, and the benefits it could bring, Congress should work with OMB and agencies to change the laws, regulations, processes, and practices that impede agencies from operating in the product model.

Workforce

How will we get the AI workforce we need? OpenAI famously recruits talent with \$1M signing bonuses. Government can't compete on compensation, and it likely never will in this domain. But it competes remarkably well these days by selling the mission. For many in tech, the mission is irresistible. Organizations like the Tech Talent Project, which place digital professionals in roles in federal and state agencies, now have backlogs of tech leaders eager to serve the American public. For some, it was the pandemic's brutal reminder of how much government matters. For others, it is threats to our country's standing in the world that they want to counter. Whatever the reason, we now have people willing, and our greatest leverage will be in fixing the systems needed to actually hire them.

You would think that when we have proven tech talent ready to serve, we would jump to bring them on quickly. In fact, that backlog of tech leaders eager to join is largely languishing in hiring processes that can easily take nine months or longer. This could change, but it will require taking seriously the defects in our hiring practices. It's not just speed, but how we hire. Today, 90% of competitive, open-to-the-public job announcements across the federal government rely solely on a resume review by an HR generalist and an applicant's self-assessment of their skills.⁵ In other words, we have essentially one way to determine if candidates are qualified for the vast majority of positions — we ask them to rate themselves. Hiring managers often receive

⁵GSA's Hiring Assessment and Selection Outcome Dashboard
<https://d2d.gsa.gov/report/hiring-assessment-and-selection-outcome-dashboard>

from HR staff a slate that contains no qualified candidates, which is why half of all hiring actions fail. They simply reject these slates and start over, adding even more months to what is already an unacceptable timeframe. Meanwhile, they miss qualified candidates whose resumes didn't make the cut because they didn't know the absurd games applicants must play to get placed on the HR hiring slates, like copying and pasting the qualifications noted in the job description directly into their resume, and rating themselves "master" at every single competency listed in the assessment. We are losing too many willing digital professionals, not because of lower pay, but because of arcane, cumbersome processes. Lack of flexibilities like remote work makes the problem even worse.

The Office of Personnel Management (OPM) and the White House have stated their intentions to hire the AI tech talent needed, but this is a case where strengthening the workforce is also a matter of reducing burdens. OPM's recent memo, for instance, will grant direct hire authority for several AI-related job classifications. That will remove a bit of the red tape agencies need to bring on experts. But that direct hire authority does not allow for the use of pooled hiring across agencies, despite the fact that pooled hiring has gotten us many excellent data scientists and other tech roles much more quickly. Agencies will have to run a separate hiring action for each open position, which will take enormous amounts of time and paperwork, even with the direct hire authority. Congress should ask OPM what authorities they need in order to change this, and what resources they need to scale programs like the highly successful Subject Matter Expert Qualifying Assessment (SME-QA) program. Then ask what is the next obstacle they need removed. I don't presume to know everything that is needed, only that they operate in a highly constrained environment, no longer fit to the purpose it must serve.

For those who despair of our ability to compete for talent, it's important to remember that the people OpenAI and others are hiring at such sky high salaries are typically those who know how to *develop and train* models. Government's primary need is not for that very specialized talent pool. It is for people who know how to *use* these models. Though I am a fan of the notion of government creating its own models, that will be the extremely rare exception. The commercial and open source communities will provide models government can adopt. The expertise needed to take advantage of AI software developed by others is at far less of a premium than that of the talent pool getting the \$1M signing bonuses, and it is even more critical to successful adoption. The kinds of technologists that USDS, 18F, and federal agencies have been hiring and continue to hire – service designers, product managers, data engineers – can do this work, even if they are not technically experts in AI (though some are). We just need to hire them at a much greater scale.

Greater competence and capacity are also important because we need people who use AI, when appropriate, to solve real problems. There is the very real risk that agencies, especially those that lack sufficient basic digital expertise, will buy AI tools in ways that are compliant with all the new guidance, but that fundamentally lack an understanding of the problem they are trying to solve. We've seen this many times before in government and elsewhere, especially with blockchain technologies – a rush to sprinkle "advanced tech fairy dust" on a tech portfolio without a clear purpose or a clear match between the need and the solution. These thoughtless

implementations will harm the public, give AI in customer service a bad name, and understandably strengthen the calls to slow down. The more uses of AI for AI's sake, the more we risk stifling what could be a welcome advancement if done thoughtfully.

AI can't be done thoughtfully without the right workforce. And we can't legislate our way to the right workforce, though removing previous legislative mandates may help. Congress will need to encourage and enable OPM to build the human resources system we need to meet this moment.

An Enablement Approach

It can be difficult to legislate competence in digital or any other domain. A large part of what makes us bad at customer experience in a digital age is that we have created a system in which the careers of government staff depend more on compliance with process than on achieving the desired outcomes. More rules usually exacerbate this effect, leading, ironically, to worse outcomes. Even legislation that doesn't add rules, but simply directs the executive branch to make studies or plans can lead to more unhelpful rigidity.

In my book *Recoding America* I tell a story of a team unable to ship the software for the new GPS satellites because they've been told that a certain component, one that breaks the software, is required by law. Many people up and down the hierarchy literally believe that Congress has mandated this component. Because of this belief, no one can get approval to take it out, even though the software has gone years over schedule and billions of dollars over budget, and would finally work if this component were removed. (It never was.)

Congress, of course, had not mandated that this specific component be used in this specific software project. In the 1996 Clinger Cohen Act, Congress had mandated that OMB provide high level guidance around interoperability in software, and this component was used to illustrate how interoperability *might* be achieved. As that high level guidance was translated into ever more concrete and binding policies at lower levels of within government, risk aversion caused it to go from an illustration to a recommendation to a binding requirement, in this case dooming the project. Even when legislation is written with sufficient leeway to allow implementers to use their judgment, it runs the risk of causing the sort of calcification that leads to bad outcomes. We must be careful what we legislate lest it have negative unintended consequences.

The goal, therefore, must be Congressional action that reduces the risk aversion of the bureaucracy. Simplification of accumulated policy cruft as described above (with help from AI) falls into this category. Careful use of oversight, including to lift up successes as often as we question failures, counts as well. Getting government agencies the people they need, focused on the right work, and reducing the burden on each of them, can be profoundly transformational.

Conclusion

As we enter the AI era, we are forced to finally grapple with the lessons of the Internet era. Chief among those lessons is how much lack of digital capacity in government has hurt the American people. Fortunately, we already know much of what we need to do to face this challenge, because it is largely the same work we have needed to do for the past two decades. AI is still software, just software that intensifies and speeds up the need for change that we've observed to date. Its arrival is our wakeup call to do what we should have already done, but it is also a gift that will help us do this work.

TESTIMONY AND STATEMENT FOR THE RECORD

Beth Blauer

Associate Vice Provost, Public Sector Innovation

Johns Hopkins University

“Harnessing AI to Improve Government Services and Customer Experience”

U.S. Senate Committee on Homeland Security and Government Affairs

January 10, 2024

Chairman Peters, Dr. Paul, and Committee Members, thank you for inviting me to participate in today's hearing. It is an honor to share my views on AI, which reflect my professional expertise and are not a position of Johns Hopkins University or Medicine.

I come to the committee with more than 20 years of public sector experience. My first job in government was as a juvenile probation officer, and when I left government service more than a decade later I was the de facto chief operating officer of the State of Maryland where I had the opportunity to oversee about 85 percent of the state's budget and a comparable amount of the workforce through an innovative data-driven program called StateStat. Together with leaders across our state we used data to create better outcomes for all Marylanders. Our success led to being named the number one school system in the country, we reduced violent crime to historic lows, dramatically reduced childhood hunger and infant mortality, got the Chesapeake Bay to a healthy tipping point and secured a triple A bond rating for the state despite a national economic crisis. This was all accomplished because we maintained fidelity to a robust data practice and used evidence-based decision-making across the enterprise of government.

In 2015, I founded the Bloomberg Center for Government Excellence (GovEx) at Johns Hopkins University with a simple yet ambitious goal: to help governments, primarily cities, use data effectively to improve the lives of residents across the United States and around the globe. Over the past eight years, GovEx has established itself as a global leader, working alongside thousands of public officials to achieve our goal. We are the go-to resource for governments as they seek to improve data proficiency and develop data-driven policy solutions drawing on the most cutting-edge technology, including AI and advanced analytics. Technological progress can present unique challenges in the public sector, but, where some see barriers, we see opportunities.

AI has the potential to greatly improve the lives of people. However, as you know, irresponsibly implemented AI has the potential to cause harm. I've worked to help public organizations realize the benefits of AI and mitigate the risk of harm to residents. Working with governments to shore up the most fundamental data practices has been critical to the early safe adoption of more advanced tools. When public institutions attempt to dive into the deep end of analytics, automation, or machine learning without first building a strong data practice, they run the risk of propagating disparate impacts, poorly informing decisions and creating bad outcomes. Responsible adoption of AI demands high-quality data to understand public operations in new ways. When done right, a strong data practice will lead to safer AI implementation that will anticipate resident needs and promote safer, more efficient, healthier, thriving communities.

We have learned from our work that local leaders are eager to adopt tools and practices that help them respond to constituents' needs better, faster, and safely. However, there are multiple barriers to exploring the practical applications of AI in their government operations, including but not limited to:

insufficient technical expertise, lack of awareness of the possibilities, budgetary constraints, and reduced research and development funding.

There is already a strong body of evidence that AI in local government can have a positive effect on people's lives. Local governments are integrating AI into their operations. For example, cities are using AI to reduce traffic congestion for both routine traffic and special events and have also used AI to manage traffic to reduce air pollution. Cities are managing their fleets of vehicles by using AI to predict required maintenance and reduce breakdowns, which allows them to ensure prompt service and save money. AI also has the potential to predict the needs of residents before it's too late by identifying households that are experiencing the early onset of economic distress. Early detection allows public agencies to provide immediate interventions that reduce barriers to aid and expedite connecting those in need to the right services. For example, cities have used AI to predict residents who are at risk of becoming homeless by analyzing utility and property violation data. This analysis has led to public interventions coming sooner, keeping families in their homes and saving public resources.

Consistently, local leaders ask how they can create an environment that allows for experimentation while maintaining appropriate protections from harm. To this end here are the five recommendations we advise governments to follow as they think about their AI work:

1. **Designate a senior leader:** This should be a trusted partner who knows when to deploy AI (and when not to); someone who can influence service design; and someone with the power/authority to lead governance and technical strategy while asking the right questions.
2. **Learn with the team:** Create an evolving learning agenda for AI; find out what people in your cities' public, private and academic sectors are already doing with AI; and measure what works – and what doesn't.
3. **Share early guidance:** Be transparent about when AI is deployed; assess the risks; take precautions to avoid bias in delivery; create and communicate an acceptable use policy; and bring people to the table to discuss.
4. **Explore what you already have:** Tackle an issue that matters (but manage the risk). Ideally, this will be a quick win that will relieve the workforce and improve an outcome for the public without disrupting the delivery of key services.
5. **Create space for experimentation:** Integrate a review of your AI implementation into ongoing performance routines; be clear before implementation about what success looks like; track progress; give your team the right balance of space and support.

We are learning as we go. An iterative stance with reflection and learning periods baked into the process creates fertile ground for cautious experimentation. At the same time, some organizations may not be ready to implement AI. For example, some municipalities may learn they need to get their data houses in order before they can use data for predictive modeling. Some may realize they do not have sufficient expertise on staff, and need to hire. Others may find that their policies prevent AI implementation, and they need to address that issue first.

In order to maximize the use of AI in public organizations, governments must start to invest in increasing their capacity for technology adoption across all levels and program areas. This means that we need to attract new skills to the public sector, we need to elevate the capacity of the current workforce, and we need to start investing in the creation of public space to experiment with new AI-powered technologies. In the absence of public leadership, we run the risk of being outpaced and

undermined by the private sector a risk that will lead to more expensive and less effective interventions.

The following are responses to frequently asked questions and inquiry in to the practice of AI in local government.

How local governments and their workforces are experimenting with and implementing AI-powered tools to improve public services

Per the [General Services Administration](#), Artificial Intelligence (AI) “refers to the computational techniques that simulate human cognitive capabilities.”

Through our conversations with cities, the Bloomberg Center for Government Excellence (GovEx) is learning that U.S. mayors want to explore the benefits of AI to improve public services and gain operational efficiencies. However, actual implementation is not yet commonplace due to budget constraints, lack of technical expertise, and ethical and legal concerns.

For those cities with which we have relationships and which have laid the groundwork for experimentation – such as designating an AI lead and establishing AI usage guidelines for city staff – implementation starts in lower-risk areas, such as:

- 311 data analysis and optimization;
- writing (meeting minutes, reports, job descriptions, letters, general communications such as press releases, etc.)
- transportation/bus service improvement;
- planning/permitting analysis;
- customer service chatbots.

Among cities that are experimenting with AI, they are using tools that are either free of charge (such as ChatGPT) or embedded in their existing enterprise software (such as Zoom’s AI Companion). In some cases, they are developing proprietary algorithms, software, etc. Usage, however, must adhere to guidelines established by the cities’ technical leadership, and staff are expected to be transparent in their use of these tools.

Examples of cities with guidelines that allow for experimentation with AI (specifically, generative AI) are: [Boston](#); [San Jose](#); [Seattle](#)

On the ground: what local leaders are asking

We learned similar lessons during the three years we spent constructing a timely federal and global Covid-19 dataset. It is necessary to embrace the fact that we do not know what we do not know, and we need to make space to learn, to be nimble, and, when it may be necessary, to pivot.

How we can apply these lessons at the federal level

The [November 1, 2023 Office of Management and Budget draft memorandum](#) that is now open for public comment provides risk management and accountability guidance. This followed the [October 30,](#)

[2023 Executive Order on AI](#), and both build on [OSTP's October 2022 Blueprint for an AI Bill of Rights](#) and [NIST's January 2023 AI Risk Management Framework](#).

Together, these documents reflect the same basic principles outlined above. This work requires leadership, learning, sharing, transparency, experimentation, and accountability, and the more we foster this kind of environment, the better positioned we will be for safer implementation of AI.

The importance of responsible experimentation of new technology and how the federal government can best foster collaboration around AI-driven solutions

Experimentation is essential for determining the value and evaluating the behavior of AI driven tools. The performance quality and behavior of tools that rely on AI can vary wildly depending on the input data, the environment, and the amount of effort spent on fine-tuning. Consequently, governments should be prepared to run realistic experiments with real-world data or to run pilots in order to evaluate the value proposition of AI tools. Allowing a third-party tool access to data or running new tools in government systems will, of course, incur some risk to either privacy, security, or safety depending on the use case and the data.

With that understanding, the importance of responsible experimentation of new technology cannot be overstated, and we appreciate the OMB's attention to risk management. Not all experiments carry the same risk, and should not be held to the same standard of caution. For example, experiments involving personally identifiable information (PII) should have greater protections in place than pothole data that might be used to predict which streets will need service in the winter. Since risk levels vary, creating consistent guidelines for an AI risk assessment would be useful. I am encouraged that the OMB draft includes as a requirement detail about the training data provenance and characteristics (section 5.c.iv.3). If all the agencies and governments present a united front that this is a necessary disclosure in order to consider a vendor, even under an NDA, that will encourage transparency.

To foster collaborations around AI-driven solutions, we should:

- Fund research and development through public-service oriented institutions, such as local governments, universities, hospitals, and nonprofits.
- Create a community of philosophically and demographically diverse peers and encourage them to share their experiments, their successes, and most importantly, their failures. Relatedly, we should cultivate a culture where failure is understood to be an important part of the process. Failure — especially fast failure — provides learning opportunities that lead to success.
- Create a framework for diverse peer review. Attempts by different teams to replicate experimentation lead to reliability; promotes transparency; reduces bias and harm.
- Embed ethicists into the experimentation process.
- Invite public review of the process.

Wherever possible, we must break down silos. They often result in groupthink; errors; intimidation; and duplication of effort. It is better to share and receive helpful critique than to perpetuate mistakes, bias, and harm.

The importance of engaging the public when developing customer-facing tools to ensure services are equitable and accessible to all communities

Engaging with the public is our best way of understanding how to meet them where they are. The purpose of this exploratory experimentation is to deliver better, faster service to constituents, but if we don't understand the needs of the community, we can't do that. For example, if a community does not have access to broadband internet, implementing AI-driven tools like chatbots that are exclusively available online will reduce access to services.

Governments also need to be open to hearing community grievances around historic (or current) government failures to provide equitable services. A community will not take our concern over equitable treatment via new AI tools seriously if they feel that the government has been unable to fairly provide these services that the new AI tools are supposed to help them access. Our use of AI must be routinely informed and centered on the needs of the public.

We should be transparent about the tools under development, who's building them, what data is being used, what they cost, and how the work is prioritized. Without providing the opportunity to ask questions in public forums, local leaders are not building "with" their constituents. They are making best guesses and assumptions, and run the risk of shutting people out of the system, paternalizing interventions that are not a match to need, and creating outcomes that drive people further away from public trust.

It must also be stated that generative AI specifically is not a mature technology. Consequently, we must exercise care and caution, especially when safety, high stakes services, or PII are involved. We should not implement customer-facing AI in situations where the failure modes are not extremely well understood. Nor should we implement it in situations in which the scale of deployment is large enough to prevent thorough review of the interactions by humans. Expert judgment is necessary in these early-stage experimentations.

Ways that the government can prepare its data infrastructure and workforces for adoption of AI tools. In addition to the previously listed suggestions, government can prepare its data infrastructure for the adoption of AI tools by:

- Develop a data maturity model that is consistent across government entities, and encourage government agencies to advance along the continuum until they are at a point where they can responsibly consider the adoption of enterprise AI.
- Develop performance metrics and systematic ways of monitoring them that are consistent with the data maturity models. If you cannot currently measure, track, and report on your performance and work quality, you will be unprepared to evaluate an AI driven tool or to provide the level of oversight recommended by the OMB memorandum.
- Develop professional development opportunities to build foundational data literacy and capacity within the civic workforce. GovEx and Baltimore have prototyped this with the [Baltimore Data Academy](#).
- Establish real-world data sets and environments that can be used to evaluate equity, safety, and quality of AI driven tools.
- Develop a framework for connecting datasets to each other. GovEx's work with Covid-19 data showed that there are significant inconsistencies in how local governments, counties, states, and the federal government define, report, and share data. Respecting the need to maintain data for longitudinal data, we could develop universal keys that connect data from one source to another, but that starts with creating the appropriate infrastructure within each data set.
- Create an on-ramp for research, development, and experimentation to make its way into cities' hands such that they can practically apply it in government operations.

- Convene roundtables of practitioners from varying levels of government to surface any policy or practical impediments to implementation. The first step to removing impediments is knowing that they are there, and the second step is to collaborate on removing them.

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Written Testimony

of

Dr. Beth Simone Noveck

**Chief Innovation Officer, The State of New Jersey
Professor of Experiential AI, Northeastern University
Director, The Burnes Center for Social Change and the Governance Lab**

before

**The United States Senate Committee on
Homeland Security and Governmental Affairs**

**“HARNESSING AI TO IMPROVE GOVERNMENT SERVICES AND CUSTOMER
EXPERIENCE”**

**United States Senate
Senate Dirksen Building, SD-562
Jan 10, 2024**

Statement before the Senate Committee on Homeland Security and Governmental Affairs

Introduction

Chairman Peters, Ranking Member Paul, honorable committee Members, thank you for this opportunity to appear before you in the company of such a distinguished panel to discuss how artificial intelligence technologies can be used to improve how governments at every level make policies, deliver benefits and services, and solve problems for and with the American people.¹

I have the great honor to serve as the first Chief Innovation Officer for the State of New Jersey. Governor Phil Murphy appointed me to his cabinet in 2018. Prior to that, I served as the founding Deputy Chief Technology Officer of the United States and head of the White House Open Government Initiative under President Obama. I also served as a Senior Advisor to Prime Minister Cameron at 10 Downing Street in the United Kingdom and a Member of Chancellor Angela Merkel Digital Council in Germany. I am also a professor of Experiential AI at Northeastern University, where I direct the Burnes Center for Social Change and its partner project the Governance Lab and I lead our AI for Impact Coop Program, where we train the next generation of leaders and problem solvers to use AI for social good. For the last twenty years, I have designed and built public interest technology to improve governance and strengthen democracy and am the author of three books about governance innovation.²

De-Hyping AI: Tools and Methods for Data Processing

If we are to realize the benefits of artificial intelligence for improving how governments serve their residents, we need to have a common understanding of what this technology is. Despite doomerist hype and headlines, artificial intelligence is not sentient. AI comprises a set of data processing tools and methods. IBM puts it simply: “artificial intelligence is a field, which combines computer science and robust datasets, to enable problem-solving.”³

Using historical information as input, the computer using machine learning learns to spot patterns and make predictions based on past examples. For example, supplied with 200,000 images of known cancerous tumors, MIT’s Mirai software can analyze new mammogram images and “predict nearly half of all incidences of breast cancer up to five years before they happen.” The tool is equally accurate for both white and Black women.⁴

Such pattern-recognition techniques have powerful relevance for a wide variety of public purposes. The NSF-funded Traffic Jam tool helps law enforcement agencies speed up the identification of human trafficking and find missing persons. Traffic Jam uses machine learning to scour online ads selling sexual services to spot those that mask modern day forms of slavery.⁵

New generative AI platforms such as ChatGPT (made by OpenAI), Gemini (Google), and Claude (Anthropic) are examples of machine learning tools trained on large datasets of human language. Also known as large-language models, they can generate fluent text. This is what makes these new generative AI applications *appear* so human rather than machine-like. However, generative AI is not intelligent in any meaningful sense. Having ingested trillions of words as training data, they can replicate the patterns

of human language. They do this in essence by predicting the most likely word to come next in a sentence in response to plain language directions, known as prompts.

Most generative AI systems are “multi-modal,” they work with both spoken and written language. The chatbot, Pi, short for Personal Intelligence, not only types, but it can talk, replicating the affect, tone, and rhythm of human conversation.⁶

Now organizations can also customize their own generative AI, training a model with specific texts and data. Thus, for example, my students in the AI for Impact Coop program at Northeastern are working with the Massachusetts Department of Transportation to create an AI tool to train new engineers.⁷ The chatbot they are building with the agency this spring will be trained exclusively on existing agency documentation and procedures so that new hires can get faster answers to questions about how the agency works.

Individuals, too, can take advantage of these build-your-own capabilities without any prior technical knowledge. My son uploaded copies of Shakespeare’s comedies to Google’s free Notebook LM product and the tool quizzed him exclusively on those texts ahead of a school English test, peppering him with customized study questions, (and, yes, he got an A).

The Power to Create and Analyze

Generative AI acts as a next-generation word processor and offers a powerful way to *create* more accessible and intelligible first drafts of speeches, policy documents and government websites in multiple languages. Jurisdictions like the City of Boston, which encouraged early adoption of and experimentation with generative AI, are now using such tools to write simpler, more intelligible government websites and more compelling job descriptions.⁸

Generative AI image generation platforms Midjourney, Stable Diffusion and DALL-E, which create original images, help with designing arresting website materials to promote tourism and economic development.

Yet, the most thrilling aspect of generative and older types of AI lie in their capability to *analyze* content, even more than create it.

ChatGPT, Bard, Claude, Pi, and other commercially available generative AI platforms *analyze and summarize* as well as create text and software code (the language of computers). This capability enables governments to effectively scrutinize and modernize legacy computer code, such as COBOL, a programming language dating back to 1959, which still supports many critical public systems and for which there is a dwindling supply of knowledgeable programmers.

In the Office of Innovation in New Jersey, our talented team of engineers, designers and policy professionals who use technology, data and community engagement to build better citizen services, leverages generative AI for scrutinizing and testing software code, aiding in the modernization of

complex and dated government systems.⁹ Our engineers have integrated “copilot” tools, which suggest code as they work yielding up to 55% faster code creation.¹⁰ Like the autocomplete that suggests the next line for your email, such aids speed up software development. Across a wide variety of benefits and services, our team also uses ChatGPT to write software tests, adding more resilience to critical digital applications.

Image generation platforms Midjourney, Stable Diffusion and DALL-E interpret and explain images in addition to creating them. For example, try snapping a picture of the contents of your refrigerator and asking a platform like DALL-E what to have for dinner. The technology can analyze what’s in the image and make suggestions.

For public professionals, the ability to analyze images with older forms of computer vision and newer kinds of generative AI translates into the ability to assess environmental transformations, including deforestation, urban expansion, and climate change impacts, using satellite imagery and photographs. For example, trained on images of past wildfires, ALERTCalifornia’s AI system made Time Magazine’s list of inventions of 2023 because it can scan new images from 1,050 cameras to provide early warnings and reduce the risk of devastating fires. In two months alone, the UC San Diego system spotted 77 wildfires before anyone called them in.¹¹

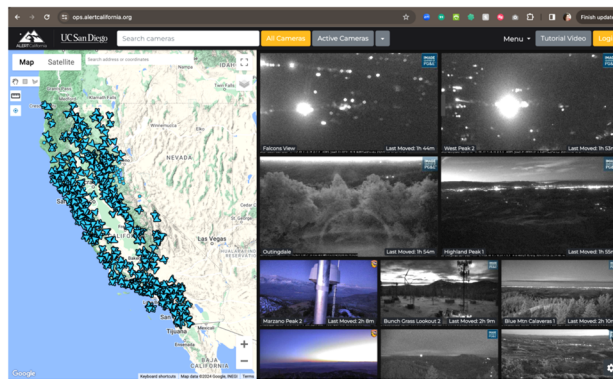


Figure 1 – AlertCalifornia - <https://ops.alertcalifornia.org/>

Creating Listening and Learning Institutions

Despite having funded the creation of the Internet, the public sector lagged in its adoption. Now the public sector has the opportunity to lead on the use of artificial intelligence for public good.

AI has the potential to make government more conversational and transform how the public and government interact because of its power to sort, organize, and summarize vast amounts of data.

Most government information is trapped behind hard-to-navigate websites and inscrutable PDFs that are hard for the public and public servants to find, let alone understand.

At the same time, public knowledge, which is widely distributed, is equally hard to make sense of. Ten years ago, it was estimated that 1.8 scientific journal articles are published each year, and that number has only increased.¹² In addition, over the last thirty years, the World Wide Web has democratized the ability to communicate. Ironically, by making it easier to speak, the Internet also made it that much harder for us or our institutions to hear one another.

This paradox was evident when President Obama's transition team in 2008, on which I served, invited public ideas for the first 100-day agenda.¹³ The overwhelming response of over 125,000 people contributing 44,000 ideas demonstrated the challenge of too much input and not enough capacity to process it – a real-life example of the adage: “dog chases ambulance, dog catches ambulance.”

By enabling the public and institutions to be heard and understood, we create new possibilities for enhancing service delivery, supporting public sector workers, strengthening data utilization, bolstering resident engagement, and amplifying problem-solving capabilities.

I explore each of these impacts of AI briefly, in turn, below, outlining the opportunities for responsibly using AI to support better customer experience.

1. Making Government More Intelligible: Creating Conversational Government

During the COVID-19 pandemic, New Jersey's Office of Innovation developed Covid19.nj.gov, a one-stop website providing clear, bilingual answers to public queries. Covid19.nj.gov served 110 million people during the pandemic because we provided plain language responses to questions like “where do I get a vaccine” or “how do I find COVID financial assistance programs for businesses.”

The COVID Information Hub was, by no means, the only such “one stop” website. However, such centralized information hubs remain the exception, not the norm, in government information dissemination. The complexity of government information can be as perplexing as determining which agency regulates which type of pizza—frozen pepperoni by the USDA; frozen cheese is the FDA.

Today, AI is making it easier for residents to get answers to their questions without needing to know where to look or even what to look for ahead of time. Now, instead of a one-way, 9-5 broadcast of information, governments could have a 24/7 conversation with residents at the public's convenience.

In New Jersey, for example, we are using generative artificial intelligence to make it easier for residents to get answers to their questions. We have moved many call centers to platforms that support AI-based text-to-speech. This means call center staff can write and publish menu options and messages in multiple languages very quickly, giving the public access to more self-help options.

For example, in just the first three months, 15% of those calling in to ask questions about the State's property tax relief program are resolving their issues successfully through self-serve tools, including web- and phone-based chatbots.

The small initial decrease in call volume translates into a 50% increase in the resolution of calls by human operators. Our results are consistent with recent research about private sector call centers. Giving workers access to generative AI that gives real-time recommendations to those answering the phone about how to respond leads, according to MIT professor Erik Brynjolfsson, to "more productive workers, happier customers, and higher employee retention."¹⁴ We are also implementing AI-enabled web-based chatbots that answer questions via the Web and text messaging as well as phone.

New Jersey is not alone in turning to AI to answer resident's questions and make government more accessible. Back in 2016, the Australian government set up a virtual assistant called Alex to answer questions. In the first 18 months, Alex had over 2 million conversations with an 88% first contact resolution rate, leading to an initial 10% reduction in calls and almost ten million in taxpayer dollars saved through digital self-service.

Closer to home, the US Citizenship and Immigration Services has a chatbot called EMMA. Named for poet Emma Lazarus, Emma answers questions about immigration services in both English and Spanish, directing a user to the right place on the website to get an answer to an immigration question. When I worked for the Obama Administration, we set in motion the dream to be able to answer questions about where an immigrant's application is in the queue, which has rapidly become real. Four years ago, USCIS was already serving over a million users a month with this chat assistant.¹⁵

Northeastern students in the AI for Impact Coop program are working with the California-based nonprofit Innovate Public Schools to help families of schoolchildren with disabilities translate and summarize their child's Individualized Education Program they receive from their school district. According to the National Center for Education Statistics, 15 percent of public school students are entitled to services for individuals with disabilities.¹⁶ Yet the Individualized Education Program that describes the accommodations and benefits a student receives are often 50-100 page PDFs with complicated legalese.¹⁷

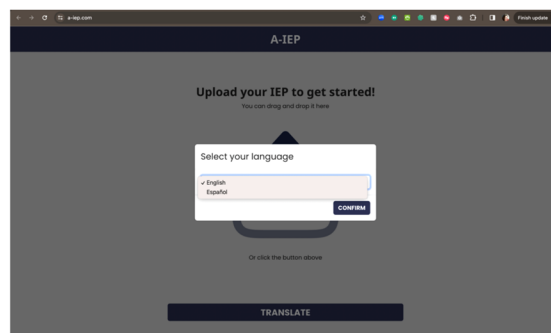


Figure 2 - A-IEP - <https://a-iep.com>

Students in the “A-IEP” project team, working under the guidance of Tufts Professor Fahad Dogar and Northeastern Professor Sofia Bosch Gomez worked with Innovate Public Schools and a network of parents to design a tool that enables families to “have a conversation” with the IEP. Families upload their IEP. Families can then securely and privately ask questions in English or Spanish about the document, such as “what are the accommodations to which my child is entitled.” Because generative AI makes creating software so much cheaper and easier, the students built a fully functioning tool in one semester.¹⁸

Finally, governments typically organize the delivery of benefits and services in ways that make sense to government bureaucracies, but not necessarily to residents. For example, in many states, if I want to start a business, I must know to visit the website for a state’s secretary of state. Then I might need to visit the treasury website to pay my taxes, while the permits I need to obtain are scattered across multiple websites from environmental protection to community affairs.

In New Jersey, the Office of Innovation created a “one stop” website called business.nj.gov, where over a million people have logged on just in the last year to get answers to their business questions and 26,000 new companies have been created. An AI chatbot helps entrepreneurs get answers to questions based on information *across* multiple agencies.

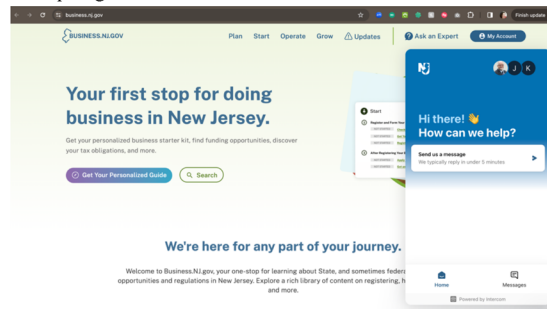


Figure 3 - Business.NJ.Gov - <https://business.nj.gov>

Instead of having to know which websites to visit, residents should be able to get answers to questions from one place. Similarly, in the City of Boston, they are integrating generative AI with the City’s open source blogging platform where information is published. Previously, someone wanting to know all the things they need to do if they move to the city (e.g. getting a parking permit for their moving van, obtaining a rental inspection, registering to vote) would have to hunt for this information in dozens of places. Or the City would have had to prepare a guidebook, pulling this information together—and risk missing something or the information becoming out of date.¹⁹ With generative AI, this information can be extracted automatically across multiple websites, and then checked by government officials.

When residents get their questions answered faster, they do not need to sit on hold, go to a government office or visit dozens of different websites. Creating a more conversational government decreases the time, aggravation, and cost to taxpayers.

Over the next two years, every government agency at every level of government should leverage AI to: 1) offer the ability to ask and get answers to questions about policies, benefits and services 24/7; 2) consistent with longstanding federal requirements, make information available in plain English; and 3) make it easier to get answers, benefits and services from one place and across agencies in ways that are intuitive to residents and those who serve them.

2. Making Government More Accessible

Generative AI and the large-language models that underlie these tools are trained on text and speech from a variety of languages, enabling them to aid with transcription and translation and creating the opportunity to make government institutions more accessible to more diverse populations.

We have already experienced the productivity benefits of AI-enabled transcription when third-party tools like Otter, Woodpecker, and Fireflies (for some reason, AI transcription tools all have cute animal names) transcribe, summarize, and extract action items from our online meetings. Zoom and Teams both have built in AI transcription as well. When we can find the key topics, conclusions, action items, and insights from a meeting, we can work that much more efficiently. The City of Boston is using this summarization capability in an exciting way. The City's CIO Santiago Garces is supporting the city council using generative AI to automate the creation of summaries of city council meeting minutes and votes. When the public can read a ten-word summary, instead of just a docket number, deliberations become more accessible, transparent, and accountable.²⁰

Many government entities are using the ability of AI to transcribe and summarize speech to improve the quality-of-service delivery. In Singapore, for example, the government uses voice transcription to turn emergency calls into text. Their specially trained AI recognizes English, Mandarin and Malay as well as the local "Singlish" inflection. The faster, more accurate logging of calls is designed to improve response time and ensure that first responders have the right information when they respond to a call.²¹

Transcription services are also helping legislatures improve how they work. In India, the parliament's Digital Sansad software takes advantage of AI to provide members and the public with real-time translation, capturing word-for-word what is said in parliament and translating into one of India's twenty-two regional languages and dialects.²² In the Netherlands, Speech2Write not only turns speech into text but it turns spoken text into edited, written reports. In the European Union, too, the parliament transcribes plenary sessions and committee hearings with artificial intelligence. Human translators proof the translations prior to publication.²³

AI works well in multiple languages. For example, researchers at Meta mined ten thousand hours of spoken texts for the most common languages (e.g., English, Chinese, Russian, Spanish, French, Japanese and German) and a thousand hours for other languages to create Seamless4MT (Massively Multilingual & Multimodal Machine Translation). SeamlessM4T offers text and speech translation in an impressive array of languages. Type any one of 101 languages and the tool will translate or voice what you said in any one of 36 languages, from Chinese to Tagalog to Western Persian. The AI model can handle several languages at the same time and combine speech and text translation. The tool is open source and therefore can be freely incorporated into other applications.²⁴

With machine translation platforms such as SeamlessM4T or Google Translate and other specialty platforms for minoritized and indigenous languages, it is becoming faster and more cost effective to do translation. We can now translate government policies, procedures, forms, services, and education into multiple languages. Imagine how much better a public hospital can serve its populations, especially its veterans, when services are available in their language. Imagine how much better a resident can navigate city hall, the courthouse or the DMV when they can understand the instructions. Imagine how much more economically competitive our children will be when they can enjoy robust bilingual education enabled by AI.

The breakthroughs that paved the way for generative AI have enabled us to make radical progress in the fidelity, accuracy and speed of machine translation, enhancing accessibility and inclusivity. Because machine translation is so fast, it will be especially useful in emergencies when there is a need to disseminate time-sensitive information, as we saw during COVID. Of course, human translators are still essential for capturing nuance.

Over the next two years, government agencies should use machine translation, even if imperfect, to translate all resources into multiple languages for easier and more efficient access and understanding by residents.

3. Making Public Professionals More Effective: Supporting Public Workers with AI

To make it easier for public professionals to do their jobs well, many jurisdictions are also building *employee* chatbots. The City of San Francisco, for example, developed a chatbot called PAIGE (Procurement Answers and Information Guided Experience) to answer worker questions about doing business with the city in order that public professionals can respond better to the public.²⁵ The Clerk of the Superior Court in Maricopa County, Arizona has an AI assistant known as YODA (Your Online Digital Assistant) to help its employees obtain information.²⁶

Similarly, our AI for Impact students are working with MassHealth, the agency that administers Medicaid and the Children's Health Insurance Program, to create an internal knowledge management tool that gives workers rapid answers to fast-changing policy and procedural guidelines to improve their ability to serve the public.

Generative AI also helps the New Jersey Office of Innovation and our colleagues at the State's Department of Labor and Workforce Development draft email responses to claimants in plain and accessible language. By supporting workers, we improve how we deliver unemployment insurance. It is one of the reasons New Jersey has been able to bring down the time it takes a resident to apply for unemployment benefits by 48 minutes per application.

And on business.nj.gov, we are not offloading citizens to a frustrating phone tree. Rather, AI supports a team of expert professionals from the State's business action center. When someone writes in with a question, it is a *human* overseeing the drafting of the response. Answers are then stored in a database so

that the next person to ask the same question via the chatbot benefits from the answer. The AI augments the efficiency of our public sector workers and makes that knowledge more widely available.

Finally, AI is also helping to support public sector workers in the detection of fraud and financial oversight, which, in turn, is bringing down the cost to taxpayers of delivering government benefits and services. A 2020 Administrative Conference of the United States report found that 45% of the 142 agencies surveyed were already using AI to combat fraud.²⁷ The U.S. government uses AI across various agencies to enhance fraud detection and streamline analysis. The SEC, for example, uses AI to assess risks in corporate filings while the IRS automates the process of spotting fraudulent tax returns. Medicare and Medicaid claim savings of nearly \$1.5 billion since 2011 from spotting improper payments.

Of course, it is essential to use AI responsibly with human oversight to ensure that automation of financial oversight does not inadvertently lead to dangerous mistakes that deprive eligible individuals of their benefits or worse.²⁸ In Michigan, for example, a machine-learning based fraud detection system implemented a decade ago (and since scrapped) made fraud accusations against tens of thousands of wrongly accused individuals. A later review uncovered that 93% of the fraud determinations were wrong, leading to garnished wages and ruined lives.

We must ensure, as the UN Special Rapporteur on Extreme Poverty and Human Rights put it, that we do not stumble “zombie-like into a digital welfare dystopia.”²⁹ But the same kinds of tools being used to identify fraudsters can also be used to identify public program participants who are entitled to benefits but who are not accessing services. We can do more to proactively supply people with the benefits to which they are entitled.³⁰

Over the next two years, all agencies should be taking steps to support its workers with the implementation of responsible AI systems that incorporate human oversight, ensuring we are taking advantage of the longstanding know-how of public professionals and getting the benefit of what humans and AI each have to offer. By supporting government workers with AI, we will improve state effectiveness, increase employee retention, and strengthen the talent pipeline of new hires into better functioning government.

4. Improving Government Capacity through Better Use of Data

AI, above all, is a set of tools and methods for processing data. Even when data is in machine-readable formats, large quantities of numerical data can be unwieldy, requiring assistance from data scientists who are in short supply. Much government data, too, is not well organized or structured. If we are going to collect data in government, we should use it to make government work better. AI is making data processing easier.

Agencies are using AI to analyze data from past calls, website searches and other citizen info to streamline how they deliver benefits and services. In New Jersey, where we design government operations *with* rather than *for* residents to ensure that we are prioritizing information and services that residents tell us they want, we actively invite citizen comment. For example, at business.nj.gov, we receive thousands of comments from existing and future entrepreneurs, giving us feedback. We would

need an army of personnel that we do not have to read through all the comments. Instead, AI parses the comments, removes the filler, and tells our team what information the public wants.

For instance, during tax season last year we saw lots of questions about where to find a previous year's 1099 forms, so we were able to move the answer to that question front and center, reducing call volumes and satisfying demand.

Amsterdam is doing something similar with the data from its version of 311 calls. The city uses AI to analyze data from calls and social media posts to identify areas of the city that are experiencing problems such as littering or noise pollution and target services to those areas. The city can then deploy scarce resources to address these issues more quickly and efficiently.³¹

Google's AI-powered Flood Hub provided crucial flood warnings in Chile in 2023, enabling tens of thousands to evacuate ahead of impending floods and averting potential disasters. Launched initially in India in 2018, it has since expanded to over 80 countries. Using thousands of satellite images to create digital land models and combining them with weather forecast data, Flood Hub can predict riverine flooding days in advance and send out alerts to residents, local leaders, and media broadcasts.³²

AI-enabled smart infrastructure could be used more to intelligently prioritize needs, from road to bridge repair.³³ For instance, digital scanning equipment, combined with AI 3D mapping, can create precise digital replicas of urban areas, pinpointing issues like potholes and evaluating conditions. This predictive approach not only cuts costs but also allows for more frequent and accurate inspections. Regular scans enable continuous monitoring of deterioration, fostering efficient maintenance schedules and long-term savings.

The challenge of needing to do more with less is becoming increasingly urgent. With fewer than 7% of federal workers under the age of 30 (compared to 20% in the US workforce) and many federal workers over the age of sixty facing retirement, workforces will become depleted without reinforcements.³⁴

At the Food and Drug Administration (FDA), for example, just over 1200 are responsible for overseeing the safety of the nation's food supply. That's 1200 people who are supposed to inspect 300,000 restaurant chain establishments, 275,000 food processing facilities, and 35,000 produce farms!³⁵ We bear the consequences of this limited staffing: the Centers for Disease Control estimate that 48 million people get sick, 128,000 are hospitalized, and 3,000 die from foodborne diseases each year in the United States.³⁶ The dangers of the FDA's shortcomings were exemplified by its delayed response to safety violations at Abbott's baby formula factory, which resulted in babies becoming ill and some dying in 2022. The failures are hardly a surprise given that only nine people work in the department overseeing baby food inspections.

Imagine every investigative agency now augmenting its workforce using AI to analyze available data faster and better and improve its response rates.

Over the next two years, every agency, especially those with investigative responsibilities for health, safety, and welfare, should leverage artificial intelligence to improve its performance and strengthen its capacity to protect the American people.

5. Improving Public Engagement

The Web—and the social media we developed on it—has often left us drowning in too much information and misinformation. People might talk but it is very difficult for either the agency or the public to hear because of the volume of comments.

The Administrative Procedure Act of 1946 was a landmark piece of legislation that granted Americans the right to comment on pending federal regulations. In 2017, the Federal Communications Commission issued a draft regulation on Internet neutrality seeking to overturn an Obama-era rule banning Internet Service Providers from loading certain websites faster than others. The public input leading up to that change received a staggering 22 million comments.

Not surprisingly, only six percent of the net neutrality comments were unique. The deluge of “astro-turfed” comments was both widespread and systematic. Ninety-four percent of comments were duplicates, some submitted hundreds of thousands of times, many under false names, including 7 million from a single account. Even with “only” 1.32 million non-duplicates, that is too many for the public or policymakers to read.³⁷

Enter AI. There exists a wide array of tools to make citizen engagement more effective and enable both the public and the institution to make sense of what is being said. Agencies should be using these tools—and supporting the creation of new ones—to enable broad public participation into and oversight over how agencies use AI.³⁸

Some federal agencies have used so-called de-duplication software to remove identical comments and enable agencies to spend more time reading unique comments. Such de-duplication software has been around for over a decade but used inconsistently. Generative AI would make it easy to remove duplicates and extract unique comments to inform the crafting of regulations.³⁹

Over 500 governments use the Citizen Lab platform, which incorporates AI to cluster, group and organize public comments.⁴⁰ AI is much faster than humans at making sense of large quantities of text and can automate the process of summarizing what people are saying, classifying submissions by topic, and sorting them into categories to make it easier for governments and the public to read.

The city of Hamburg in Germany uses natural language processing to sift through thousands of resident contributions about city planning on DIPAS (short for DIgital PARticipation System). Drop a digital pin on a map of the city and append your proposal about planned urban development projects. In response to a recent request for comments on a new cycling concept for the city’s westernmost borough, residents submitted over 3,000 contributions, too many to read. But the platform’s AI tools automate the analysis of the contributions, making it possible to cluster, visualize, and organize the steadily increasing number of

resident contributions. The system is even sophisticated enough to understand the Plattdeutsch dialect, local government acronyms, and specialist planning jargon.⁴¹

Your Priorities, a free, open-source tool for public engagement from Citizens Foundation and used in thousands of online engagements globally, uses AI to scan incoming postings for toxicity. AI automates the process of spotting offensive speech that violates terms of service and community norms, bringing such language to the attention of moderators and reducing the cost of organizing engagements. Instead of wading through every submission, both the public and policymakers can ask Your Priorities' AI (it incorporates ChatGPT "under the hood") to summarize key ideas, spot weaknesses, and even suggest improvements to ideas submitted. Anyone can ask the website to: "show me all the comments on Topic X" or "summarize the best comments on Topic Y."⁴²

At MIT, the Cortico project uses machine learning to synthesize comments in live, face-to-face discussions. In Madison, Wisconsin, for example, small groups of citizens participated in community conversations about the city's police, which had come under scrutiny for violence against Black residents. The conversations were recorded using Cortico. The machine learning tool highlighted topics of common concern and these became the basis for interview questions for the four finalists for the chief of police job.

For those who struggle with language barriers, tools like ChatGPT or Anthropic can translate poorly worded ideas into well-crafted contributions. Those not fluent in the dominant language or who are simply not good writers can turn a vague idea into clear, clean prose. Prompt one of these free genAI tools to write a fifty-word proposal for a plastic bag tax and the machine returns: "To combat plastic pollution, we propose implementing a bag tax. Data shows that after Ireland introduced a €0.15 tax in 2002, plastic bag usage dropped ninety percent within a year, significantly reducing litter and promoting reusable bags. This tax would encourage sustainable behavior, cut landfill waste, and generate revenue for environmental projects."

Image generation tools are also enabling citizen engagement. UrbanistAI, a Finnish-Italian initiative, is using AI to turn the public's ideas for how their city should be designed into hyper-realistic photographs that communities can discuss. Urbanist facilitates co-design workshops in urban planning around the world. In Helsinki, the technology is helping residents and city officials to design car-free streets together. Using AI prompts, participants can visualize changes like adding planters or converting roads into pedestrian zones. The technology even incorporates a voting feature, allowing community members to weigh in on each other's designs. Now you don't need a degree in urban planning or artistic skills to see how your ideas could transform your community.⁴³

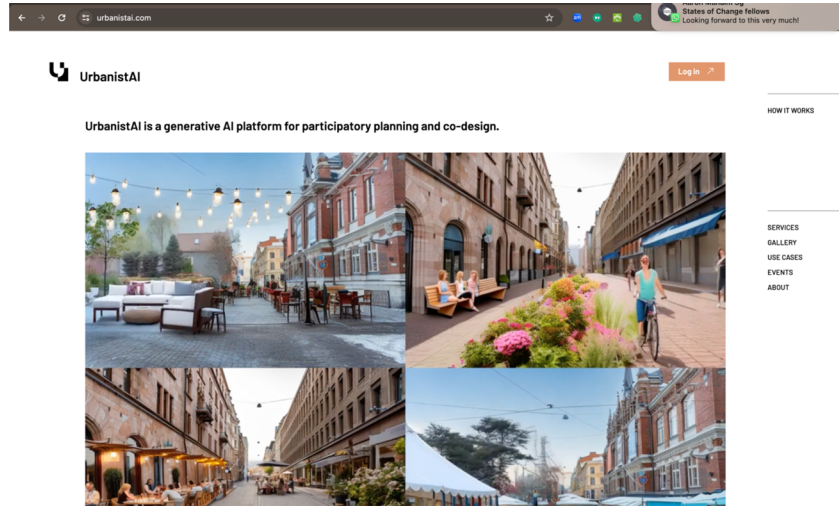


Figure 4 - UrbanistAI - <https://urbanistai.com>

Since 2022, Car Free America has been posting images on Instagram, Facebook, YouTube, and TikTok. Instead of telling the viewer about their dream for cities with fewer cars and more welcoming architecture, the urban planning activist behind the channel uses generative AI to show an alternative, human-centered vision for downtowns like those of Cincinnati, Fort Wayne, and Austin.⁴⁴

Used well, these tools portend a powerful new era of citizen collaboration and codesign with more inclusive and diverse participants.

Over the next two years, CAIOs should adopt innovative public engagement through AI, ensuring that every voice is heard and accounted for in the policymaking process. AI-enabled public engagement should be used to advance public input into the governance and use of AI by government. To take advantage of AI's unmatched potential to analyze public sentiment, manage feedback, and scale engagement across diverse demographics, federal agencies should implement AI solutions that facilitate and enhance public consultations.

6. Solving Complex Problems More Effectively

In addition to helping us make sense of too much information, artificial intelligence is also enabling new forms of complex problem solving that were not possible before.

We are also turning to artificial intelligence to unlock the experience and know-how of global experts. AI is making it faster and easier to identify innovative strategies to combat election-related violence and election subversion and strengthen our democracy.⁴⁵

The first step in tackling any complex challenge is to break it down into smaller, more manageable problems. Election subversion, for example, comprises myriad issues from media-fueled doubt about election integrity to violence against election officials to vulnerabilities (real and perceived) with election technology.

But identifying those constituent problems typically involves weeks of research and interviews followed by additional months, if not years, of due diligence to figure out what's been tried, whether what's been tried has worked, and whether what has worked elsewhere is transferable and likely to work in additional communities.

To help speed up the process of defining the problems and coming up with solutions to election subversion, my team at the GovLab enlisted the expertise of the Icelandic civic tech entrepreneur Robert Bjarnason. Bjarnason has been designing platforms used in over ten thousand citizen engagements globally since 2008, including Your Priorities.

Together, we invented the free, open source toolkit Policy Synth to increase the speed, accuracy and scale of “smarter crowdsourcing” using a fine-tuned version of GPT-4, Open AI’s multimodal large language model.

Policy Synth uses AI to improve complex policymaking. PolicySynth automates the creation of over a thousand different search queries, from general to scientific, to data-specific and news-related, to conduct a comprehensive search for problems and their root causes. This enabled us to break down the complex problem of “election subversion” into myriad smaller challenges automatically, identifying several dozen, more tractable challenges.

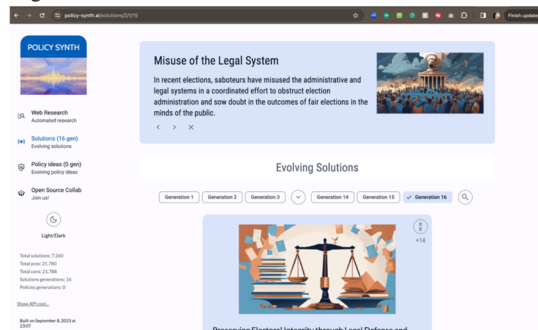


Figure 5 - Policy Synth - <https://policy-synth.ai>

From among the longer list of problems, we selected which topics we wanted to focus on. For example, one specific topic was the misuse of the administrative and legal systems. Election deniers have knowingly filed multiple malicious lawsuits with the goal of overturning electoral outcomes or filed frivolous public records requests with no real purpose but to gum up the works of the election system.

In 2023, for example, we rapidly convened 35 specialists for a two-hour, online conference via Zoom where they proposed 14 solutions to the legal abuse problem, such as investing in professional organizations with disciplinary authority to punish malicious lawyers and improving education about professional responsibility in law schools. AI helped us to summarize and extract the learnings from two hours of simultaneous talking and typing in minutes, rather than days. We repeated such online convenings for other topics.

In parallel to asking people, we also asked Policy Synth to generate its own list of solutions. GPT agents searched the Web to identify solutions that are responsive to the problem. After generating hundreds of solutions, we automated the process of removing duplicates and isolating only those solutions that are relevant for a philanthropy (as opposed to a government or company).

This filtering process, which Bjamason calls “reaping,” produced a list of 60 solutions for each identified problem, each accompanied by a visual illustration from the image-generation tool StabilityAI, in a human-readable format with pros and cons for each solution.

Policy Synth yielded the same 14 solutions to legal abuses as those identified by the human experts but also introduced additional solutions, such as establishing a legal defense fund for administrative officials and mental health support for election workers.

Policy Synth does not just generate solutions, it also evolves the recommendations using a genetic algorithm. The software combines recommendations and then tests how well the new version of the solution fits the stated problem to see if the improvement should be adopted or rejected. With fifteen rounds of such mutation and ranking, Policy Synth produces a final list of approaches tailored to addressing the problem.

Policy Synth also employs Elo Scoring to rank the solutions. Named after chess master Arpad Elo, Elo Scoring shows how skilled a chess player is, not by factoring in the number of wins alone, but by whether the win was against a better or worse player. This pairwise comparison helps people to know how good they are.

Similarly, the Policy Synth AI compares each solution one to the other and scores them based on requested criteria such as implementation speed, cost, potential for political disagreement, or impact on women or African Americans.

Thus, we were able to take recommendations generated by AI and by human experts and use one to rate and rank the other’s proposals. To be clear, the decision is not left to an AI algorithm. Rather, organizers working with human experts are leveraging AI as a research aide.

Now we are working with the Burnes Center for Social Change, the Museum of Science, New England’s largest cultural institution, and Boston Public Schools, to ask people nationwide about the crisis of literacy in America. According to Nation’s Report Card, only 33% of fourth graders were proficient readers in 2022 and we want to understand why this problem persists.⁴⁶ Policy Synth has helped us to conduct the research to identify 150 possible root causes of the problem of low literacy so we can ask

parents, students, and educators to say which problems are the most important prior to combining human and machine intelligence to search for solutions.

Over the next two years, agencies should experiment with combining artificial intelligence and collective intelligence. When we can blend machine precision with human wisdom, this has the potential to accelerate how we solve problems and deepen democracy. As we navigate this new frontier, let's not forget: technology can inform, but people decide.

A Note on Responsible Use

In this testimony, I focus largely on the *benefits* of AI use for the public sector. However, that use must be ethical and responsible. In New Jersey, we tell our public professionals to abide by four core principles that define responsible use: Empowerment, Inclusion and Respect, Transparency and Accountability, and Innovation and Risk Management.⁴⁷

Empowerment focuses on harnessing AI to enhance our services and products, ensuring they are delivered efficiently, safely, and equitably. This approach relies on the judgment and expertise of our professionals, leveraging AI as a tool to augment their capabilities.

Inclusion and Respect highlight the importance of using AI to uplift communities, particularly those historically marginalized. We aim to utilize these tools in a manner that embodies our values of equity and social justice, ensuring that every community relates to the necessary resources to thrive.

Transparency and Accountability are central to building trust and facilitating collective learning. When using AI, it is crucial to disclose its involvement openly, sharing workflows with other public servants and the public to foster a transparent environment.

Innovation and Risk Management encourage responsible experimentation while maintaining control over privacy and security. We understand that the risks associated with AI may not always be apparent, and thus commit to ongoing risk assessment.

To help mitigate risk, we suggest four key tactics that individuals must adopt when using new generative AI tools:

1. Ask - Early and Often - The more you experiment with different ways of steering the tools, the faster you will learn how to instruct them to yield the best results and avoid mistakes and problems.
2. Fact Check - Verify all AI-generated content, especially for public use, watching out for incorrect facts, events, links, or references, biased, or harmful information and getting information reviewed before posting.
3. Disclose - Label content created with generative AI to that effect.

4. Sensitive Information - When prompting the AI or using AI models, never input sensitive or private information.

Of course, the risks arising from the use of new technologies are myriad and go far beyond individual user error. They include malevolent attacks, described at length in the most recent report from the National Institute of Standards and Technology to badly designed tools that simply do not accomplish their stated purpose to tools that are designed to earn a profit at the expense of the public interest or tools that rob humans of decision making autonomy.⁴⁸

We cannot weigh what is acceptable risk, however, without also understanding the benefits. Because the risks arising from the use of technology are covered in depth elsewhere, I have intentionally focused this testimony on ensuring we understand the potential benefits.

Building an AI-Ready Public Sector

If we want to realize the benefits of AI for serving residents, there are two immediate priorities: opening more data and training public professionals.

Congress should redouble its commitment to opening government data to power the AI revolution. We need large quantities of data to train AI models, especially generative artificial intelligence. Government data, which is already required to be open and publicly accessible in machine-readable formats without legal or technical restrictions under the Open Government Data Act, has helped to train large language and other machine learning models. SEC data, patent data, and other federal agency data that we opened up as part of the White House Open Government initiative in the Obama administration has been instrumental in enabling the creation of better AI.⁴⁹ Now to improve the robustness of our AI tools and avoid the need for an AI company to take advantage of the copyrighted content developed by another company, Congress should ensure that agencies have the resources to create and publish data in machine readable formats, going from promises to practice and opening up the data that taxpayers own and have already paid to collect.⁵⁰

Now to create a federal government capable of using AI to better serve the public, Congress should build on the historic strides of the AI Training Act spearheaded by this Committee, and expand training to the entire federal workforce, not just senior officials. Furthermore, training should focus on how to *use* AI to make government services better, rather than on awareness of AI. Since we cannot *hire* enough AI professionals fast enough, we must *create* them by mandating broad, free training in AI.

President Biden's 2023 Executive Order on Artificial Intelligence aptly calls upon agencies to “increase the availability and use of AI training and familiarization programs for employees, managers, and leadership.” While there is an abundance of free AI content available online, the vast majority is designed for private sector use.

There is urgent demand for training tailored to the unique needs and responsibilities of public professionals.⁵¹

InnovateUS, which I lead, delivers free, independent, online training in responsible AI use to public sector professionals. We are run by public servants for public servants and governed by a board of public sector professionals. Philanthropically funded, non-partisan and free to all learners, InnovateUS has committed to train at least 50,000 learners over the next three years.⁵²

InnovateUS delivers free, weekly, skill-building workshops on practical AI topics, featuring luminaries like Santiago Garces, CIO of Boston, teaching generative AI policy writing or Chris Rein, CTO of New Jersey, educating on how to be an AI evangelist. Jennifer Anastasoff and Cassandra Madison, leading figures from the Tech Talent Project, delve into the crucial subject of bringing AI talent into government service. Later this month, I'll teach how to use AI text tools and how to use AI image tools, reprising workshops I delivered before Christmas, each with hundreds of participants.

We have videos online, offering hands-on tutorials on how to use generative AI tools. A multi-part at-your-own pace courses on responsible AI use will launch early in 2024, following consultation with federal and state public servants and experts from industry, academia and civil society co-hosted by the Partnership for Public Service and the Beeck Center. Courses will include in-depth instruction in how to use AI in government as well as how to create AI-ready organizations.

In a world where AI is underpinning virtually every technological advancement, every government official, regardless of their role or background, must acquire a foundational understanding of these technologies, their potential, and their ethical implications. Governor Murphy has made the commitment to upskilling public professionals in New Jersey in collaboration with InnovateUS.

AI training for public servants should be free of charge as is the practice in every other country. Yet on the civilian side, the Office of Personnel Management, by contrast, is required to charge a fee for its training programs. Even if the individual applies to their agency for reimbursement, too often programs do not have budgets set aside for up-skilling. If we want public servants to understand AI, we cannot charge them for it.

AI training for public servants should also be easy to find. In Germany, the federal government's Digital Academy offers a single site for digital up-skilling to ensure widespread participation.⁵³ By contrast, in the United States, every federal agency has its own (and sometimes more than one) website where employees look for training opportunities. While the Department of Defense has started building USALearning.gov so that all employees could eventually have access to the same content, this project needs to be accelerated.

Data on the outcomes of AI training should be collected and published. The current absence of data on federal employee training prevents managers, researchers, and taxpayers from properly evaluating these training initiatives. More comprehensive information about our public workforce, beyond just demographics and job titles, could be used to measure the impact of AI training on cost savings, innovation, and performance improvements in serving the American public.

Summary of Recommendations

Used responsibly, AI has the potential to transform how governments at every level deliver benefits and services, dramatically enhancing customer experience and, I hope, improving rates of trust in government.

To realize this vision of AI-enabled public administration, Congress should support:

1. **AI-Enabled 24/7 Information Services:** Agencies to implement AI systems to provide round-the-clock information services, allowing residents to ask and receive answers about policies, benefits, and services anytime.
2. **Cross-Agency Information Integration:** Agencies to prioritize projects that consolidate information across various websites and agencies, presenting it in ways that are intuitive to both residents and service providers.
3. **Plain English Information Accessibility:** Agencies to ensure that information is available in plain English, adhering to federal requirements for clarity and comprehensibility.
4. **Multilingual Translation of Information:** Agencies to use machine translation, despite its imperfections, to translate all resources into the major languages spoken within their communities for more accessible and efficient understanding by residents.
5. **Supporting Workers with Responsible AI:** Agencies to integrate responsible AI systems with human oversight to support their workforce. This will enhance government effectiveness, improve employee retention, and attract new talent, while leveraging the combined strengths of human expertise and AI.
6. **AI for Improved Agency Performance and Investigations:** Especially in agencies responsible for health, safety, and welfare, artificial intelligence should be leveraged to improve inspections, enhance performance, and strengthen the capacity to protect citizens and overcome capacity deficits.
7. **AI to Reduce Fraud:** Agencies to use AI specifically designed to analyze large datasets, identifying patterns, anomalies, and potential areas of concern, particularly in spending and benefit distribution, integrating AI technologies with human oversight for real-time monitoring and swift responses to irregularities. An emphasis on public transparency and accountability is essential, with regular publication of the outcomes.
8. **Adopt AI for Public Engagement about AI:** Chief Artificial Intelligence Officers (CAIOs) to employ AI for innovative public engagement, ensuring comprehensive representation in policy making. Such AI-enabled public engagement tools can help to support broad and diverse public participation, helping agencies improve how they use AI.

9. **AI Solutions for Rulemaking:** Agencies to implement AI solutions that facilitate and enhance public participation in rulemaking, harnessing AI's ability to analyze public sentiment, manage feedback across diverse demographics, and extract ideas to inform how rules are crafted.
10. **Combining AI with Collective Intelligence:** Agencies to experiment with merging artificial intelligence and collective intelligence, aiming to accelerate problem-solving and deepen democratic processes. This approach blends machine precision with human insight.
11. **Opening Data to Grow the AI Economy and Improve Governance:** Agencies intensify efforts to open government data, ensuring it is in machine-readable formats to facilitate the training of AI models. This involves providing the necessary resources to federal agencies for creating and publishing data, thereby fulfilling the Open Government Data Act's mandate, and leveraging taxpayer-funded data to enhance AI robustness and innovation.
12. **AI Training for Public Servants:** Congress should implement free, accessible AI training for all federal employees, beyond senior officials, focusing on practical applications of AI in government services. This training should be centralized for ease of access, like Germany's Digital Academy, and include comprehensive data collection on training outcomes to evaluate its impact on public service efficiency and innovation.

Conclusion

There is much hand wringing about possible devastating consequences of artificial intelligence. Many tech professionals have signed a manifesto that alarmingly declares: "Contemporary AI systems are now becoming human-competitive at general tasks, and we must ask ourselves: Should we let machines flood our information channels with propaganda and untruth? Should we automate away all the jobs, including the fulfilling ones? Should we develop nonhuman minds that might eventually outnumber, outsmart, obsolete and replace us? Should we risk loss of control of our civilization?"

But the doomsday prognosticating is only half the story. These remarkable technologies for organizing information could hold the key to designing better institutions, capable of listening and learning more efficiently, and responding more effectively to the challenges of our times. If we want to realize the benefits of these powerful technologies for improving governance, strengthening resident engagement, and deepening democracy, we must invest more in creating that future.

¹ Non-Endorsement: The technologies referenced in this document are discussed as examples of artificial intelligence tools in use in government to improve customer experience. Their mention does not constitute an endorsement of the technologies or the companies behind them. I have no relationship to and derive no financial benefit from these firms.

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January 10, 2024

The Honorable Gary Peters
Chairman
The Honorable Rand Paul
Ranking Member
Committee on Homeland Security and Governmental Affairs
United States Senate

Dear Chairman Peters and Ranking Member Paul:

On behalf of the Partnership for Public Service, a nonpartisan, nonprofit organization dedicated to better government and stronger democracy, I am writing to submit this letter for the record in connection with the Senate Homeland Security and Governmental Affairs Committee's hearing "Harnessing AI to Improve Government Services and Customer Experience."

As technology rapidly advances and the federal government considers the opportunities and risks of deploying artificial intelligence (AI), agencies must think strategically about how to best use this tool to accelerate improvements to public-facing high impact services, such as filing taxes, getting screened by TSA at the airport, enrolling in Medicare, and applying for and receiving disaster assistance. Before assessing how AI and other emerging tools can boost federal customer experience (CX) efforts, it's first useful to establish a baseline understanding of how end users experience government service delivery.

Customer service, at its core, is the direct and immediate interaction between a customer and the service provider, concentrating on addressing questions and resolving any issues promptly. Customer service usually starts with and focuses on solving problems of the moment. In contrast, customer experience (CX) is a broader concept that reflects the journey, or the sum of all interactions, the customer has with the organization and focuses on delivering sustained customer satisfaction and fostering long-term engagement. CX management involves a comprehensive understanding of customer needs, analyzing every touchpoint, evaluating interactions and measuring the effectiveness of products and services across the entire organization to proactively meet the needs of the American public. This distinction underscores the importance of attending to both immediate interactions through customer service, and the broader holistic journey through customer experience.

Improving CX will bolster how agencies interact with the public and can foster public trust in the federal government. In fact, Partnership polling shows that positive experiences with federal services may help drive trust in government but that negative experiences appear to affect trust more strongly.¹ This trend continues globally, with McKinsey finding that customers are nine times more likely to trust their government and nine times more likely to agree that agencies are meeting their mission if they are satisfied with its services.¹



Recommendations

To fully realize government’s potential to integrate AI and deliver improved federal services, progress must be made on several foundational fronts:

1) Establish strong governance structures

For AI and CX efforts to be successfully coordinated at agencies, it is imperative to view CX as an enterprise-wide initiative and put that into practice by actively involving leaders and teams from diverse departments and offices. This work requires enterprise-wide digital solutions to drive CX rather than custom solutions for individual lines of business.

For that reason, AI and CX roles cannot operate in silos – simply designating a “chief” only scratches the surface of the cross-organizational leadership necessary to meet this moment head on. Ultimately, if the person in a chief customer experience, AI, data, or information officer position or related role isn’t empowered to lead and work collaboratively across the enterprise, there will be little progress on these issues. A recent surveyⁱⁱⁱ of federal chief data officers (CDOs) reflected this inconsistency, with respondents indicating that CDO functions are organized differently across agencies. For example, 33% of CDOs said they report to chief information officers, 15% report to agency heads and 52% wrote in a variety of other reporting structures (such as reporting to the COO, CFO or other positions).

Agencies should have the ability to assess the optimal reporting structure for their mission, but we recommend that these roles not be dual-hatted with other chief roles unless the person has specific leadership skills applicable to the position or has a technical deputy that can serve as the link between senior leaders and the AI or CX workforce. Additionally, we question whether some of these positions require a “chief” role, or should rather be embedded across existing data, IT, cyber, and program offices that all play parts in enabling any emerging technology such as AI. Regardless of where these positions sit on the organizational chart, it is crucial to ensure that the people in these roles have the requisite skills and accountability mechanisms to enable successful AI adoption and thoughtful, human-centered design CX efforts.

Utilizing existing governance structures, such as IT governance boards, can be instrumental in this regard. These boards bring together various actors and stakeholders, fostering a collaborative environment that breaks down silos and promotes good governance. This integrated approach ensures a more cohesive and effective strategy in implementing AI and CX initiatives, leveraging diverse expertise and perspectives for holistic solutions.

2) Prioritize data

To deliver customer-centric services, the executive branch and Congress must enable agencies to share common customer data in a secure environment. This demands a new approach to customer data that prioritizes enterprise solutions, not temporary workarounds. The federal government should recognize that it is not only possible but vital to both embrace customer data protections and reduce the administrative burden on customers—but doing so will take bold action, investment and a willingness to consider innovative approaches.



Some agencies have made strides in adopting best practices, including the Small Business Administration, FEMA and the Department of Housing and Urban Development, which coordinate to provide disaster assistance. But more often than not, agencies have barriers in sharing data across and within agencies. Overcoming these challenges will require strategic planning and enterprise data-sharing agreements to make sure that the information fueling federal CX efforts is readily available to those spearheading these efforts.

We recommend the following actions:

- Agencies should invest in APIs—software that enables two computer programs to communicate—or other emerging technology tools that enable secure data verification; for example, validating income eligibility for specific benefit programs. As needed, OMB should generate policy to govern these arrangements.
- Agencies should explore and, where feasible, implement cloud storage and computing solutions to make their data more secure, manageable, and usable. The interoperability and computing power of modern cloud solutions are critical to leveraging the value of government data and expanding the government’s capacity to train and operationalize AI.
- OMB should work with entities like the Chief Data Officers Council and the Federal Privacy Council to establish government-wide approaches for research and data protection laws and regulations relevant to customer experience missions, such as the Privacy Act. They should also create standard parameters for conducting customer research, collecting customer feedback and data, and research compensation.
- OMB and other federal agencies should conduct an audit of CX data collection, data protection and data-sharing statutes and regulations that are relevant to customer experience programs, building on the life experience projects to understand where these policies prevent seamless and secure customer experiences. With these findings, they should seek regulatory or congressional support as needed.
- Federal agencies should explore proposals to give customers the opportunity to opt in or out of allowing agencies to share their data across programs or agencies, or explore pursuing an “ask once” goal for data collection, subject to legal requirements.
- Congress should pass additional customer experience legislation, along the lines of the Federal Agency Customer Experience Act, that will improve agencies’ ability to understand the diverse needs of the people they serve and securely use customer experience data to improve federal service delivery and build public trust. Additionally, Congress should provide oversight over the 21st Century Integrated Digital Experience Act (IDEA) implementation and 508 compliance efforts, as both are important to federal CX efforts.
- When integrating AI into their operations, agencies must first ensure that data inputs are accessible, high-quality, and machine-readable. To achieve these pillars of data management and usability, agencies should define and maintain rigid internal data standards to ensure readiness for AI applications. Most importantly, agencies should maintain and communicate data in non-PDF formats. Wherever possible, agencies working with similar data should align their standards to increase the value of each data set and reduce duplicative work.

In customer experience and service delivery applications, personally identifiable information (PII) is used to customize AI systems, optimizing them for the individual’s needs. However, attached to those opportunities for improvement are a host of privacy-related risks. Agencies must address



these harms with robust data governance policies and powerful privacy-enhancing technologies (PETs). To save time, reduce costs, and protect customers, we recommend agencies audit their data intake practices to align with modern best practices for data minimization. Additionally, agencies should publicly define permitted uses for PII and provide a simple and prompt means for customers to delete, change, or control access to their information. To prevent malicious use of PII, agencies should prioritize security in the design of their data infrastructure and adopt cutting edge PETs. Combining architectures like Zero-Trust with technologies like Secure Multi-Party Computing creates overlapping protections against unauthorized access and extraction. These recommendations simultaneously promote individual liberty and personal privacy for the customer and responsible stewardship by the government.

3) Focus on talent

This connection between the federal employee experience and the customer experience is particularly important now, as Congress and the Biden administration are making historic investments in communities around the country through the Bipartisan Infrastructure Law, Inflation Reduction Act, and CHIPS and Science Act. The agencies rebuilding bridges and roads, expanding the availability of high-speed internet, lowering energy costs, ensuring access to clean drinking water and facilitating economic growth will be most successful in these efforts if a focus on their customers drives their work. Moreover, the civil servants delivering these public benefits will be most effective if they are engaged and empowered at work.

There are several human capital components to prioritize when focusing on improved CX and the integration of AI:

- **Hiring** – To successfully deliver on agency mission and accomplish any CX and AI goals in the coming years, government needs people with these specialized skillsets. The Office of Personnel Management (OPM) has issued information on AI competencies^{iv} and streamlined some hiring processes^v to assist in talent surge efforts, but agencies need more guidance at the hiring manager level to make this work. We recommend that Congress fully authorize, fund and support agency hiring efforts for the talent needs of a user-centric government, both within and across agencies, and professionalize the customer experience and AI career fields by creating targeted occupational series. Additionally, Congress should bolster federal HR offices so they have the capacity and skills to be consulting partners in the work to bring on CX and AI talent.
- **Funding** – To accomplish the called-for AI talent surge and make government competitive for top talent, there needs to be a government-wide recruitment strategy bolstered by streamlined hiring processes (including assessments, pooled hiring efforts, shared position descriptions and other hiring flexibilities). We recommend that Congress fully and flexibly fund CX budgets from the customer’s perspective, allowing for cross-agency programs, personnel, resources and investments (for example, through the Technology Modernization Fund and the continued use of CX set-aside resources for the implementation of AI).
- **Recruitment incentives** – An OPM proposed rule^{vi} would enable agencies to authorize recruitment incentives for up to 50% of their annual basic pay per year to fill critical agency needs. Agencies should use this pending new authority to help compete against the private sector for AI workforce talent. We recommend that agencies use the pending recruitment incentive waiver authority and focus on streamlining the initiation and approval process of



recruitment incentives to offer market-sensitive payments to assist in hiring AI workforce talent. Agencies could also more effectively use recruitment incentives if the law authorizing these payments was amended to allow for occupation-based payments using conditions for similar positions in the private sector. This would allow the federal government to adjust to changing talent needs and market conditions.

- **Pay system** – As we lean into emerging fields like AI, the federal government must urgently update its antiquated pay system. The government’s 1949 pay and classification system was designed for clerical workers, not today’s highly professional, specialized civil service. To meet today’s hiring and retention needs, Congress should create a modern, occupation-based, market-sensitive pay system. While the government, in most cases, will not be able to match private sector salaries, it will be better positioned to fill critical skill gaps—in cyber, AI and CX positions, for example—under a system that allows agencies more flexibility in setting pay and by establishing standard job series for roles in these fields.
- **Retention** – In addition to undertaking necessary AI and CX talent surges, federal agencies must also prioritize retention of current employees. A Partnership analysis of nearly 150 VA medical centers found a connection between CX and employee experience.^{vii} In fact, a better customer experience can drive an enhanced employee experience, creating a virtuous circle of good government. Agencies should focus on employee retention by adopting strategies like robust onboarding programs, mentorship programs, professional development opportunities and clear performance metrics related to the employee experience.
- **Flexibility** – The pandemic forced a reimagining of work across all sectors and industries, leading to an increased desire for flexibility, particularly among younger employees and those in the tech field, where employers offered ample hybrid and remote opportunities. To recruit and retain top talent, the government must think strategically about how to infuse various types of flexibility into federal roles. One example of a measured approach is the Telework Reform Act^{viii}, introduced last year by Senators Lankford and Sinema, which would update the telework law that was first passed in 2010 and codify the definitions of telework and remote work.
- **Training** – Whether agencies are building their own AI systems or acquiring them from outside vendors, they should ensure that federal employees have sufficient expertise to evaluate and operate artificial intelligence tools. Agencies should also explore ways to develop technical and non-technical staff capacity to understand the risks, benefits and implications of using AI for service delivery. Some current efforts recognize this need and aim to assist agencies in developing expertise, such as Chairman Peters’ AI Training Act^{ix} signed into law in October 2022 which charges OMB with developing a training program to help acquisition professionals better understand AI and its potential risks and benefits. Congress should work with OMB to evaluate the effectiveness of the program and consider whether this already-underway framework can be applied to other training opportunities.

4) Embed human-centered design principles

The principles of human-centered design (HCD) play a pivotal role in enhancing customer experience. HCD is an approach that focuses on understanding the needs, behaviors, and experiences of people—the end-users—at every stage of the design and service delivery process. It



involves iterative, collaborative techniques and empathetic engagement to create solutions that are not only efficient and effective but also resonate deeply with the user's needs and preferences. By integrating HCD, the federal government can ensure that their services are not only functionally excellent but also intuitively aligned with what the American public truly values and needs.

One of the best practices in designing products is the collection of user feedback. This ensures that a product is designed for the customer, in addition to being user-friendly and accessible. Far too often, government products and services are not designed this way and agencies do not incorporate real-time user feedback at points throughout the development process to drive improvements – often this is due to a real or perceived ban on collecting user feedback unless agencies go through the requirements of the Paperwork Reduction Act. We support bipartisan Congressional efforts like the Federal Agency Customer Experience (FACE) Act, which would improve the collection of voluntary feedback from citizens and require federal agencies to publicly report customer satisfaction data, and the Improving Government Services Act, which aims to improve agency CX efforts and ensure those services are user-friendly and accessible.

5) Encourage strategic innovation and risk-taking

Finally, agencies can take managed risks in the areas of AI and CX by using pilots to define use cases and utilize human-centered design practices to identify customer needs. A recent Government Accountability Office (GAO) report⁶ found that agencies have over 1,200 current and planned use cases. To more effectively assess the risks and benefits of using AI, agencies should be permitted to experiment with thoughtful pilot efforts aimed at collecting data and informing future, wider-scale actions. Allowing agencies the space to pilot innovative uses of AI applications to enhance customer service will be critical to strategically and appropriately expanding its use across government. Along with developing use cases through human-centered design principles, agencies also need to evaluate the uses of AI and apply lessons learned.

There are several models in other fields and agencies that could serve as ways to develop spaces of innovation for the use of customer-focused AI. One such model is the procurement innovation lab at the Department of Homeland Security (DHS). This provides a safe space for DHS components to test procurement solutions, while developing and applying lessons learned. Exploring ways to create cross-government opportunities for agencies to work collaboratively and share lessons learned could be useful for scaling AI and CX work.

Center of government agencies (e.g., OMB and GSA) also have a critical role to play in fostering collaboration and innovation on AI across the government. For example, a federal advisory committee on acquisition policy recently recommended that GSA establish a task force to examine opportunities for use of AI in federal procurement, which include enhancing agencies' market research, compliance with acquisition regulations, decision-making and risk management. These types of uses could lead to better contracting decisions that ultimately benefit the customer.

The National Science Foundation (NSF) also may be able to play a convening role in bringing agencies together to explore enterprise solutions, rather than having application usage and evaluation done in agency silos. Per Executive Order 14110^{vi}, NSF has already been tasked with setting up AI research centers that bring together private sector research and expertise. Having a



center or other entity that is focused on the use of AI in the public sector would be equally impactful.

Conclusion

We appreciate the Committee’s attention to this important issue and your efforts to strengthen the public’s experience with government services. The Partnership looks forward to supporting the Committee’s efforts and working together on these important issues in the future. We would be happy to provide further briefings for members and committee staff about leading CX practices in government, informed by our work with federal agencies – please let us know if you have any questions or would like to discuss these matters in the future.

Sincerely,

Max Stier
President and CEO
Partnership for Public Service

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^x “Artificial Intelligence: Agencies Have Begun Implementation but Need to Complete Key Requirements,” Government Accountability Office, December 2023, <https://www.gao.gov/products/gao-24-105980>

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**Post-Hearing Questions for the Record
Submitted to Jennifer Pahlka
From Senator Jacky Rosen**

**“Harnessing AI to Improve Government Services and Customer Experience”
January 10, 2024**

1. In Nevada, we are no stranger to severe weather. From extreme heat to wildfires to winter storms, our state is vulnerable to the threats posed by the changing climate. The use of artificial intelligence like machine learning to help predict these extreme weather events has the potential to dramatically increase warning signs and mitigation against climate change-driven natural disasters. However, according to a recent G-A-O report, rural areas – where there are fewer weather observations and data collection sites – present a barrier in machine learning training. These gaps in data puts rural states like Nevada behind when using AI to predict and take steps to plan and build resiliency to natural disasters. How can agencies close these data gaps and work with rural communities to ensure they have the resources necessary to contribute as data sources?
2. What strategies can be adopted to address existing gaps in rural data sets to improve machine learning performance? Is employing synthetic data something we should consider in this context or are there limits to that?
3. The Social Security Administration's customer service operations consist of a network of nearly 1,200 field offices and 24 call centers responding to calls from a national 800-number. I am grateful for the critical work these customer service operators do to provide security and confidence to seniors and families in Nevada and across the country to ensure they receive the benefits they have earned. Unfortunately, I've heard from Nevadans that they have faced long wait times both on the phone and to access services from Social Security Administration offices. Additionally, many of my constituents have failed to receive updates on their cases. According to the Government Use Case Inventory, the Social Security Administration is listed as using AI for 14 different use cases, including a program to help identify duplicate cases. How might uses of AI like this be able to improve wait times and service delivery at the Social Security Administration? What other examples of low-risk AI may have the highest impact on improving Nevadans' average interaction with federal agencies?

Ms. Pahlka did not respond by time of printing. If a response is received, it will be on file for public inspection in the committee offices.

**Post-Hearing Questions for the Record
Submitted to Beth Blauer
From Senator Jacky Rosen**

**“Harnessing AI to Improve Government Services and Customer Experience”
January 10, 2024**

1. Government use of AI provides opportunities to dramatically improve government services, but also comes with its own risks. Protecting privacy, the cost of acquisition, and securing high-risk information are some of the many challenges when integrating this type of technology agency-wide. Ensuring that we are using AI that is developed and deployed responsibly is critical to ensuring its success. How can agencies and their leadership benefit from additional government-wide guidance on AI acquisition?
2. As the integration of AI into different public services continues, how should agencies ensure that high-risk information is properly secured? For example, if an agency employs an AI chat bot on their website and individuals are asked to share personal information, like their social security number or bank information, what practices must be in place to ensure that data is secured and is not integrated into further AI training data?
3. The Social Security Administration's customer service operations consist of a network of nearly 1,200 field offices and 24 call centers responding to calls from a national 800-number. I am grateful for the critical work these customer service operators do to provide security and confidence to seniors and families in Nevada and across the country to ensure they receive the benefits they have earned. Unfortunately, I've heard from Nevadans that they have faced long wait times both on the phone and to access services from Social Security Administration offices. Additionally, many of my constituents have failed to receive updates on their cases. According to the Government Use Case Inventory, the Social Security Administration is listed as using AI for 14 different use cases, including a program to help identify duplicate cases. How might uses of AI like this be able to improve wait times and service delivery at the Social Security Administration? What other examples of low-risk AI may have the highest impact on improving Nevadans' average interaction with federal agencies?

Ms. Blauer did not respond by time of printing. If a response is received, it will be on file for public inspection in the committee offices.

**Post-Hearing Questions for the Record
Submitted to Dr. Beth Simone Noveck
From Senator Jacky Rosen**

**“Harnessing AI to Improve Government Services and Customer Experience”
January 10, 2024**

1. *Government use of AI provides opportunities to dramatically improve government services, but also comes with its own risks. Protecting privacy, the cost of acquisition, and securing high-risk information are some of the many challenges when integrating this type of technology agency-wide. Ensuring that we are using AI that is developed and deployed responsibly is critical to ensuring its success. What has New Jersey's approach been to handling sensitive information securely? Are there lessons we should take when considering guidance at the federal level?*

Thank you for the thoughtful questions and the opportunity to respond.

In New Jersey's [policy](#) on responsible AI use, where we encourage public servants to use generative AI in order to improve how they deliver services to residents, the policy clearly instructs public servants:

“When prompting the AI or using AI models, do not disclose sensitive or private information. We aim to enable responsible AI use while safeguarding sensitive information.

- a) Do not share personally identifiable information (PII) about residents, colleagues, or yourself. Do not share confidential or sensitive content.
- b) Do not use AI tools to transcribe or summarize meetings where sensitive topics are discussed.
- c) Do not share any information that you wouldn't share publicly.”

We have accompanied the written policy with [video-based instruction](#) from our non-profit InnovateUS partner who made a training video to accompany the policy. The video explains the importance of careful data handling practices.

Furthermore, all public servants in New Jersey are required to do online cyber-security training that provides guidance on handling of sensitive information - this training is mandated by, and delivered by, the State of New Jersey directly to its employees. We are now making training in responsible use of AI available to our public professionals online through InnovateUS.

2. *The Social Security Administration's customer service operations consist of a network of nearly 1,200 field offices and 24 call centers responding to calls from a national 800-number. I am grateful for the critical work these customer service operators do to provide security and confidence to seniors and families in Nevada and across the country to ensure they receive the benefits they have earned. Unfortunately, I've heard from Nevadans that they have faced long wait times both on the phone and to access services from Social Security Administration offices. Additionally, many of my constituents have failed to receive updates on their cases. According to the Government Use Case Inventory, the Social Security Administration is listed as using AI for 14 different use cases, including a program to help identify duplicate cases. How might uses of AI like*

this be able to improve wait times and service delivery at the Social Security Administration? What other examples of low-risk AI may have the highest impact on improving Nevadans' average interaction with federal agencies?

In New Jersey, we are using AI in some of our call center operations and websites to reduce wait times and resolve inquiries more quickly by augmenting and helping our talented staff to do their jobs more efficiently and effectively. We are not replacing staff with AI. Instead, AI helps our professionals:

- 1) analyze incoming calls and messages so we know better and faster what residents need and want to know so we can put that information front and center on our websites.
- 2) We use AI to help us write new phone tree responses in plain language so that residents can also get faster and better answers by phone.
- 3) If people get the information they need, they don't need to wait on hold, leading to a 50%+ increase in call resolution.
- 4) We also use AI to help us "translate" government speak into plain language, ensuring that information we communicate is more accessible.
- 5) AI is used with human oversight. We are never posting what a LLM (large language model) spits out without human editing. Rather, generative AI is helping to write first drafts that are reviewed by professionals to ensure that information is clear and accurate.

These low-risk uses of AI with a "human in the loop" help public professionals be more productive and more responsive to residents and their needs, helping us to improve how we deliver customer service.