



TAPPING INTO AI TO TRANSFORM GOVERNMENT SERVICES

Although government agencies have leveraged artificial intelligence for decades, the recent proliferation of new capabilities like generative AI, or GenAI, are changing the game.

During the recent **webinar**, “Unlocking Government Potential with Generative AI,” sponsored by ThunderCat Technology and Dell Technologies and produced by GovExec, Taka Ariga, chief data scientist and director of the Innovation Lab at the Government Accountability Office, discussed AI’s potential to boost efficiency and productivity for agencies.

“We’re sitting in a renaissance of the algorithmic golden era, where the confluence of compute horsepower, the availability of data and this contextual understanding of that information is driving a lot of excitement,” he said.

So far, GAO has **identified** at least 1,200 instances of AI improving federal processes. This trend is only set to grow as more agencies harness GenAI to streamline operations and speed up decision-making, resulting in a nimbler and more accountable government.

Throughout the webinar, Ariga and leaders from the private sector discussed the implications of broader AI use in government, and shared their teams’ experiences, best practices and potential opportunities.

Supercharging government efficiency with AI

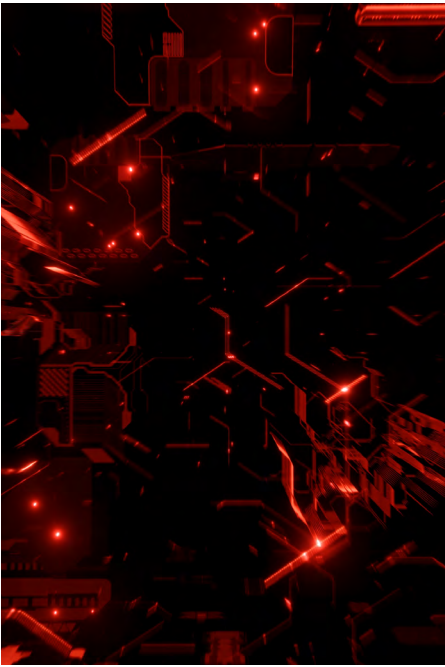


One of the most important ways agencies currently use GenAI is to improve citizen communications and interactions with their websites. AI-powered chatbots now hold conversations, responding contextually, not just providing pre-programmed answers, said Kurt Steege, chief technology officer for ThunderCat. For example, the Department of the Air Force created a GenAI platform trained on DOD data with DOD security and “guardrails” for conversation flow, while the Internal Revenue Service uses GenAI models for taxpayer queries and fraud detection.

Beyond chatbots, AI can analyze massive data sets and identify connections across diverse data types, such as video and images, using a “multimodal approach,” said Chris Thomas, technology strategist and systems architect for Dell Technologies.

Additionally, AI assists with brainstorming by breaking down complex concepts and enables advanced search, freeing up employees’ time to focus on innovation, said Ryan Simpson, NVIDIA’s chief technologist of the public sector. NVIDIA even leverages GenAI for its own cybersecurity by using an anomaly detection system trained on employee behavior data to strengthen the company’s security posture.

Setting the standard for ethical AI use



While AI offers tremendous productivity gains, human expertise remains crucial, as complex AI models require careful oversight. According to Simpson, teams must work to select tools that best fit their mission, understand how prompts and interactions influence outputs and establish safe testing environments before public deployment. Ensuring responsible development and use requires human counterparts to navigate any ethical implications.

Preventing privacy issues and biases in AI applications is also imperative, especially to avoid perpetuating historical injustices, Ariga said. The public sector, in particular, has a responsibility to minimize bias in data sets.

“As with any other entity, we want to celebrate the transformation to productivity gains ... but as government entities, we need to be very mindful,” he explained.

For example, some underserved communities don’t have complete electronic health records. Steege highlighted the **partnership** between Indian Health Services and UC Irvine as a key example in demonstrating how AI can address such inequalities and enhance health results.

“Because of the lack of information on underserved communities, we’re going to have a harder time, and one of the most difficult tasks is to remove the bias,” he said.

Ensuring AI accuracy and trust

It’s not enough to vet and clean data, however, it’s also important to ensure AI output is accurate.

“When we were developing our general AI prototype, we asked a very silly question. ‘What is Abraham Lincoln’s opinion about GAO as an AI accountability framework?’” Ariga said. “And in a very confident way, the prototype told us Abraham Lincoln hated it. So that’s an example of hallucination, a silly example. But if you don’t have a user trained to recognize behaviors of hallucination, you may actually take that as a fact and run with it.”

Input from end users and subject matter experts will be valuable in reducing inaccuracies and misrepresentations, Thomas noted.

“Critical thinking is going to become the most important skill that people are going to have going forward,” he said. “You don’t have to be a data scientist ... to have [the] basic understanding [that] matters ... in that entire feedback loop.”

Smart AI deployment in government

It's easy to get caught up in the hype and rush to implement new technologies, but before deploying an AI program, agencies should ask whether it's even necessary.

"We categorically choose not to develop capabilities that are meant to replace or supplant professional judgments of our analysts and specialists," Ariga said. "They're really focused on enabling them to do things more effectively, more efficiently, dig deeply, more broadly, things of that nature that allows us to do more with less."

Agencies should start by first identifying the problem they're trying to solve, then determine if AI is the right solution.

Ariga offered this advice: "Focus on the basic data quality, security, scalability, UX-CX design. I think if we get those in order, AI is actually relatively — from a technology perspective — pretty straightforward."

Ultimately, with the right foundational approach, agencies can maximize AI's potential while mitigating risks, paving the way for a more efficient, innovative and equitable future.

"Taking the basic principle from a system engineering perspective, and have fun, fail fast," said Thomas. "Learn from your mistakes and do it again, there's no crime or punishment for doing that. Be bold, and see what the art of the possible is."

Learn more about how ThunderCat and Dell Technologies can help your agency effectively leverage AI.