

6 Steps to Using AI and Automation

Artificial intelligence (AI) and automation tools can do amazing things. They can collect and analyze masses of data at lightning speed, alleviate the burden of routine and repetitive tasks, and identify opportunities people cannot. Generative AI (GenAI) is slowly but surely transforming work that, until recently, was clearly the prerogative of humans, such as writing speeches and policy documents.

But all this potential raises valid questions, and some understandable concerns. How can agencies harness AI for good? What are its limitations? What training, technology and data rules are required?

During a recent GovLoop virtual event, subject-matter experts explored AI's current and future impacts and offered creative insights on using AI technology effectively, appropriately and securely. Their recommendations included:

- Practice Using AI
- Embrace Good Data Management
- Plan for Performance Improvement
- Use AI Tools Ethically
- Steer Clear of AI Myths
- Exercise Good Data Governance

Check out the full virtual summit here:

Session One

More Than Tech – How AI Can Transform Operations

Session Two

How to Keep AI and Automation Safe

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Practice Using AI



Beth Noveck, Chief AI Strategist, State of New Jersey

Today's AI technology offers wonderful opportunities for government employees, and GenAI in particular will become a ubiquitous tool for the public sector, said Beth Noveck with the State of New Jersey. "Whatever your role or function in government is today, it's going to benefit you to start learning about [AI] tools and to understand what it is they can do, what they can't, and how you can use them," she said.

Know Where GenAI Thrives

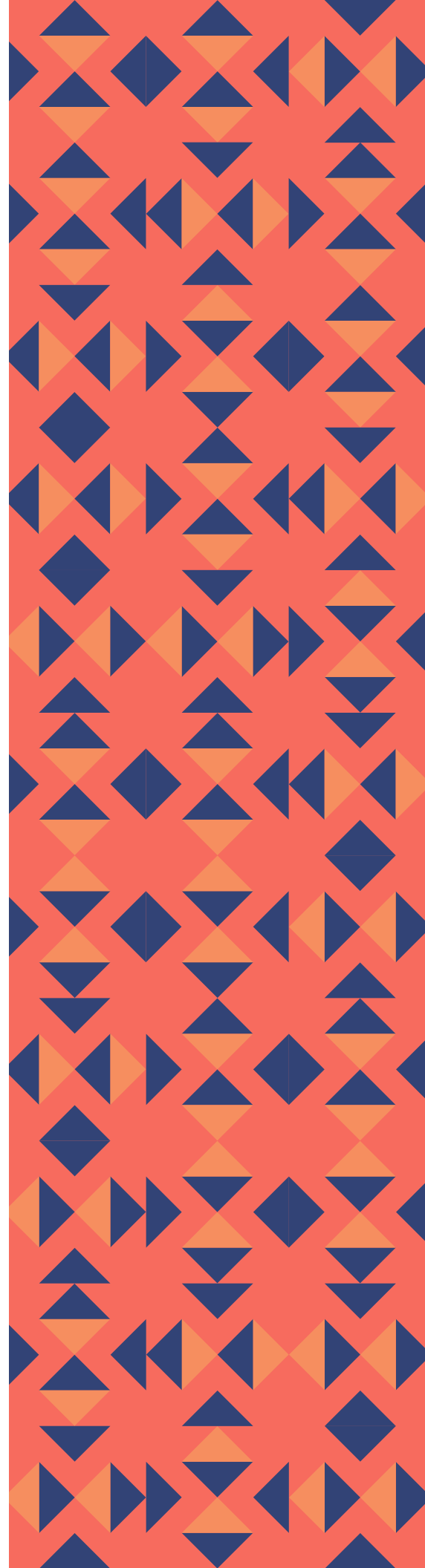
Understand that GenAI "doesn't substitute for original thinking and original work, [for] our own ... contributions and oversight," Noveck stressed. We should see the technology as the latest advancement in data and word processing. GenAI is great at researching and preparing initial drafts of speeches and policy documents, at analyzing text and images, and at transcribing recorded meetings, she said. In New Jersey, officials use AI to synthesize thousands of public comments. "It's not to have AI do the responding to people," Noveck said. "AI helps us manage the volume so that we, as public professionals, can be more responsive."

Experiment Responsibly

Getting good, accurate answers from GenAI takes practice, so employees should have license to experiment responsibly, e.g., consistent with agency policies and common sense, said Noveck. "People should think about how to upskill themselves," she explained, "how to learn more about what these tools are, so they can understand how to use them in their own jobs." That could include opportunities available through [Innovate US](#), a government consortium in which New Jersey participates, that provides free AI, data, and innovation trainings to public servants. If practicing with GenAI at home is more comfortable, that's OK, said Noveck: Perhaps AI can help you write a new bedtime story.

Speak Plainly

Similar to how a child learns language by listening to its parents, GenAI learns from the billions and billions of words at its disposal, so it ultimately can predict the next word in a sentence, she said. "Unlike other kinds of computer software, where you have to know computer programming ... to instruct the software to do something, generative AI is instructed by plain English," Noveck said. You don't need a computer science degree or technical training to use GenAI successfully. "The first skillset you have to have," she said, "is a command of language."



2 Embrace Good Data Management



Rich Barlow, *Principal Technologist, Pure Storage*

The variety and quantity of data are growing exponentially, making it uniquely difficult for government to adopt AI technology, said Rich Barlowe of Pure Storage, a company that stores, manages and protects data. To use AI effectively, agencies need enough data, the right kind of data and the right AI models, he said. He believes the effort is worth it, though. “A lot of AI projects are just getting off the ground now,” Barlowe noted. “But if you look at the promise of them, what they’re going to deliver is accelerated, more intelligent, less biased decision-making.”

Be Flexible

To begin working with AI, you must be mentally and organizationally flexible — because “what works this year might be foolish next year,” he said. Tie yourself to the outcome your agency wants, not to a specific technology or model. “I’ve seen more AI projects buried by inflexibility than anything else,” said Barlowe. “It’s not money, it’s not technology, it’s literally ‘well, we can’t do that.’” The private sector struggles with fixed mindsets, but government is different: “In the public sector, the repercussions are bigger,” he said. “You’re serving the community, the taxpayer and your constituents.”

Have an AI Strategy

Agencies need an overarching AI strategy that clarifies four issues, Barlowe said: What are your ethics and biases, your legal frameworks, your privacy protections and your ultimate objective? That four-pronged approach will inform an agency’s software and hardware purchases, data modeling, staff hires, and partnership decisions, said Barlowe. It will help you understand the environment you’re dealing with, including compliance and other requirements. And a good AI strategy relates to cybersecurity. After all, “who wants to be on the front page of the paper?” he asked.

Start Today

Invest in data management now, Barlowe urged. AI depends on access to huge amounts of data created over a long time, but agencies traditionally have cherry picked what they want and deleted the rest. That leaves AI tools with relatively small data repositories to draw from. “In an AI world, you keep all of your data,” he said. “You don’t throw it out, because you don’t know what the model’s going to need a year from now, five years from now.” Pure Storage can help agencies manage their data for AI, Barlowe explained. “We have some really cool ways of attacking the problem.”

3 Plan for Performance Improvement



Steve Ly, *Federal Platform Architect, ServiceNow*

AI can improve customer and employee experiences in manifold ways, said Steve Ly with ServiceNow, a company that facilitates agency transformation. For instance, it can reduce the need for lengthy human interactions, take on repetitive and routine tasks, and unravel tangled processes. Its potential may scare some people, he said, but historical context should ease concerns. “There have been multiple technological transformations in human history [e.g., the industrial revolution],” he said. “AI is just the latest of them.” In addition to new jobs and roles, there will be new practices for agencies to follow, to ensure they use AI securely, said Ly.

Practice Good Governance

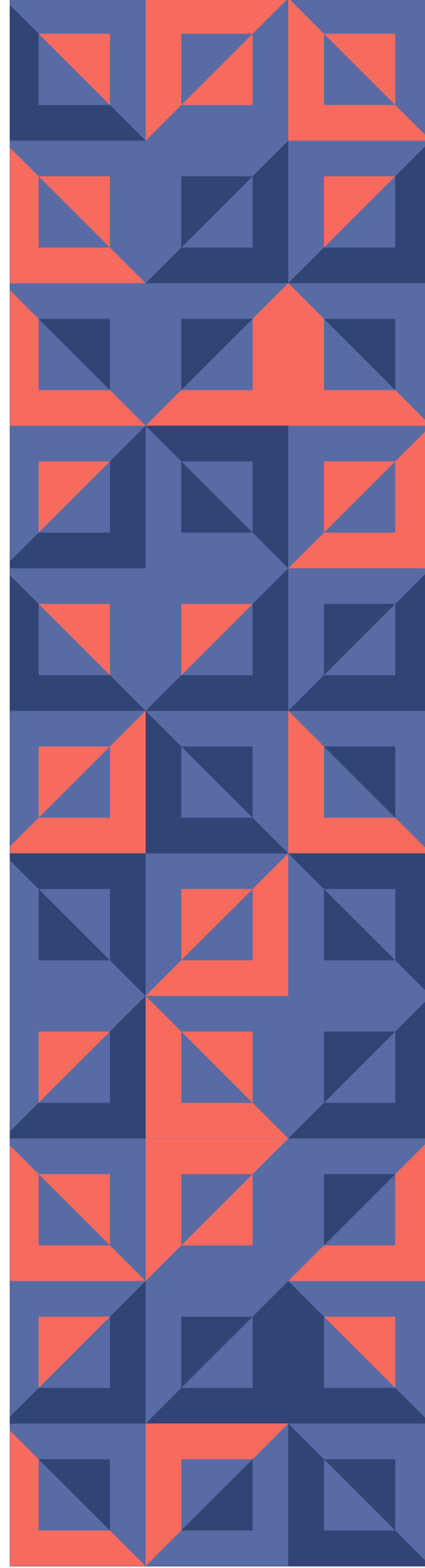
Good governance is fundamental, and the Office of Management and Budget’s [guidance](#) implementing the White House’s recent [AI executive order](#) is an important first step, Ly said. As part of effective governance, agencies should designate AI technology advisors — such as the Department of Justice’s (DoJ) newly hired Chief AI Officer, who “is really going to focus on the impacts of emerging technology and how to integrate that ... within the DoJ,” he said. And transparency makes a difference, Ly explained. What’s informing your AI technology outcomes and abilities?

Test Your AI Solutions

Rigorously evaluate your AI technology, especially your GenAI solutions, he said. For example, agencies can provide ServiceNow with specific GenAI use case requirements, as well as a subset of the agency’s data, and then ServiceNow reviews it all and builds a solution for the agency to test, he said. An organization “can actually run [the AI technology] in its environment and see how it performs,” which helps overcome technological barriers and ultimately deliver better services, said Ly.

Train Your Talent

To implement AI securely, agencies must train their employees to use it and must educate them on the field in general, he said. “Many people don’t really understand what AI is. They sometimes struggle to understand the difference between machine learning, natural language [processing] or even generative AI,” Ly noted. “That’s a critical ... barrier that we have to overcome.” Learning how to interact with GenAI is an emerging need — in other words, “training the employee to understand what’s the best prompt to ... get the information you want,” he said. And if agencies begin using multiple AI platforms, IT teams must manage them and train staff — and that can become burdensome.



4 Use AI Tools Ethically



Donald Bauer, CTBME, FAC-P/PM Level III, CISSP, Chief Technology Officer, Global Talent Management, U.S. State Department

AI will help with data-driven decision-making and productivity, but we need to design and manage it ethically, said Don Bauer, with the U.S. State Department. AI is meant to empower teams to solve problems or reach conclusions faster, Bauer said, but those conclusions must be trustworthy and sound. He sees clear ways to maintain ethical standards in AI use, mostly by making sure AI serves and represents humans and human interests.

Use Good Data, Transparently

Bauer believes it's not how AI operates that determines its ethics, but the quality of data AI receives and how transparent the agency is about the data's origin. "Everybody thinks that there's some magical mystery machine out there that's got all this intelligence," he mused. But all things considered, "the actual ... prize is the data," he said. "That hasn't changed." The goal in using AI in decision-making is not to "hide" behind the machine, he said, but to reveal the data sources that led AI to making productive and sound conclusions.

Keep Humans in the Loop

At this juncture, it's important for human experts and "regular" people to evaluate AI outcomes and give feedback, said Bauer. AI needs a variety of data to work in a contextualized and unbiased way. At the State Department, an AI steering committee includes data scientists, a chief data officer, the Chief Information Officer, an industrial psychologist, attorneys and others. "You also want your ... folks in the organization to represent the diversity of skills and mindsets [because] we all measure success [based] on different strategies with different mindsets," Bauer explained. "Don't rely solely on the technical people," he said. "AI is for everyone ... we're all part of the public."

Make the Models Inclusive

Bauer said that if we're going to use this technology to make life-impacting decisions, it needs to be inclusive — that is, usable and understandable for everyone. "Where we all hope technology brings us closer together, this is a case where it could actually bring us apart," he said. He recommends that AI architects test models to see how they respond if used by a variety of constituent groups, to make sure that "regardless of how somebody approaches it, they're going to get the complete information that you want them to get."

5 Steer Clear of AI Myths



Kevin Tupper, *Principal Solution Architect/
AI Evangelist, Microsoft*

There are some widespread myths about AI that stem from reasonable fears, said Kevin Tupper with Microsoft, but we can't let fear control us or overtake the actual AI experiences we have. Challenging some of the most common AI myths, Tupper said that AI is not a threat, but an opportunity to improve operations. And "with AI literacy, we're going to become better at using it by starting to use it," he explained.

Myth 1: You Can Avoid AI

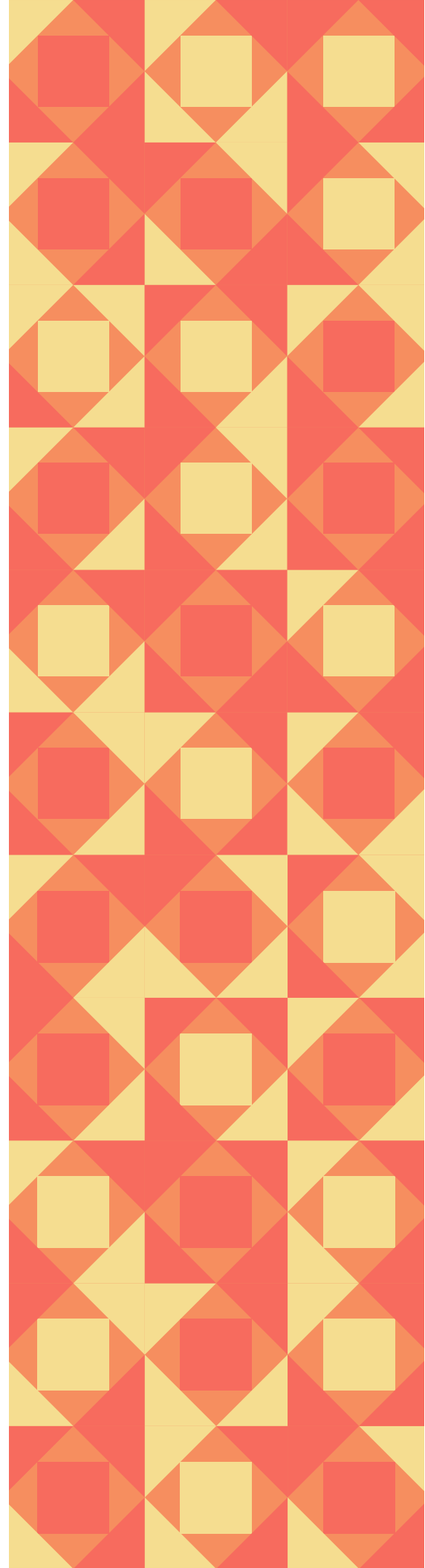
"Your world has changed, and you don't know it yet," said Tupper. AI isn't something we can avoid: It's all around us, whether or not we've actively chosen to use it. "One way or another, this is coming," he said. "So, we may as well enter together, leaving no person behind, helping everybody move forward..." Since AI is inevitable in daily work, he recommends that agencies make "sandbox" opportunities, where employees can explore the technology safely. Then they can weave that capability into their initiatives.

Myth 2: AI Has Narrow Capabilities

When working with the State Department on an AI evaluation of leases, Tupper found that a large, untrained model could solve a months-long problem, without ever seeing the data before. That was his "aha" moment, he said. Five years ago, AI could solve specific problems with a narrow focus, but now, as Tupper said, it has "mass adoption capabilities for great impact. [Foundation models] have the ability to answer questions, they can reason over data, they can understand sentiment, without being trained for that specific task," he said. Tupper called these capabilities a "veritable team of interns that you can put to work at tasks to accomplish things, which we could not do before."

Myth 3: We're Doomed

"Fear, uncertainty, doubt, sells," said Tupper. It's true – "we're doomed" is a story that gets people interested. But Tupper certainly doesn't believe that AI is going to take over our decision-making, as some fear. His vision for an AI future is much more positive than thousands of speculative stories would have you believe. "I think we're going to get this right," he said. Tupper sees a more uplifting future for life with AI. He said instead of disaster, it may involve disruption, because that's part of progress. "But disruption does not equal division," he said. And he believes we can get it right.



6 Exercise Good Data Governance



Sean Tabbert, Principal watsonx Lead –
Federal Market, IBM

AI development is in an exciting stage, for agencies of all levels, in terms of the technology's ability to enhance creativity and operational efficiency, said Sean Tabbert with IBM. AI helps with workforce optimization by automating repetitive tasks, facilitating modernization and allowing users – whether constituents or employees – to receive information and take action more quickly, he said. But for that to take place, Tabbert noted, agencies must practice high-quality data governance.

Know What You Have Is Trustworthy

To use AI tools safely, you must know what's in them, said Tabbert. "All of that exciting operational efficiency, having tools that can help you get your job done faster and easier – none of that can be implemented at scale unless we trust the output, unless we have a clear view on what that base model was trained on and the data that went into it," he explained. That means data is not biased, untrustworthy or infringes on copyright. "You have to have that foundation of trust to drive it forward. If models have inherent bias, "all you're doing is supercharging that bias at scale within your organization to the citizens that you serve," he said.

Be Strategic

If agencies don't have a data governance strategy, now is the time to set one up, Tabbert said. "Once you find a generative AI use case, that can really drive value. But you also need that governance strategy in place, because once you start implementing ... that starburst effect happens very quickly." He recommended prioritizing compliance, safety and transparency to benefit from AI. Risk management should be tied to specific use cases and categorized based on the risk each case poses, he said. "Understand what it takes to put that framework in place – the people, the process, as well as the technology, to be able to maximize the benefit."

Keep an Eye on It

As your agency's AI use expands and the models improve, outputs must be monitored and managed "to see if any drift is coming in, any bias is being introduced," Tabbert said. "Those guardrails have to be put in place from the start." In other words, you can't begin using AI and just let it run. "It does feel like every week something new and interesting is released, and the tools and technology can now do something that it couldn't do before," said Tabbert. That requires humans to advance as well.



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