Perspective | Public Sector

Navigating pitfalls in government AI adoption

Transformative technologies like generative AI have the potential to tackle some of government's biggest challenges, but you'll need a roadmap to get there

Content

Introduction

Government agencies are traditionally behind the curve when integrating emerging technologies. But the potential benefits of generative AI (GenAI) to meaningfully reduce administrative burdens, lower costs and improve efficiency have sparked a sense of urgency in leaders eager to address long-standing public sector challenges.

Embarking on a GenAI adoption journey can be both exciting and daunting. Where do you start? How can you get the most value out of your GenAI investment? How do you manage the risks?

Understanding the intricacies of using GenAI, from the initial idea to the final implementation, is crucial for implementing and scaling these solutions successfully. This is where a roadmap and an experienced partner can help you navigate challenges and potential pitfalls.

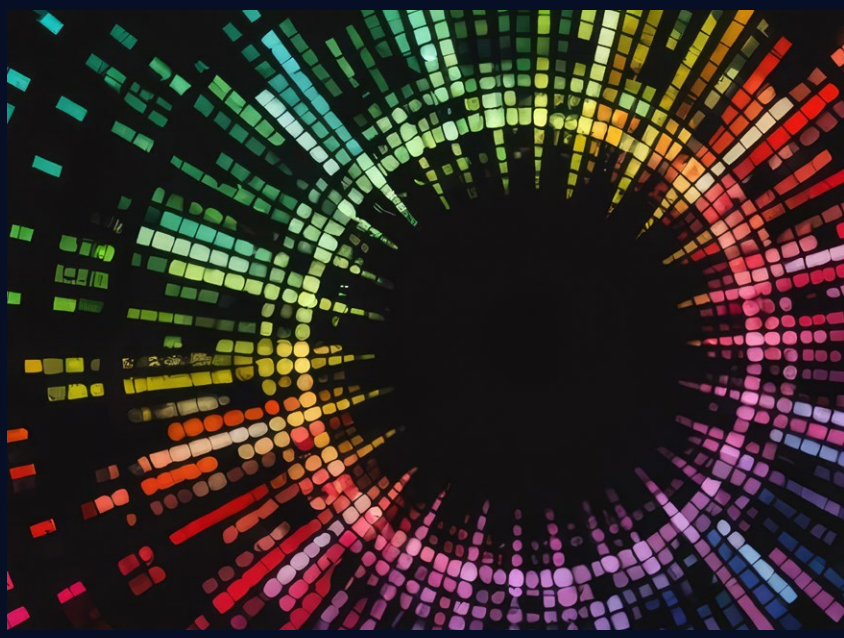
Let's explore NTT DATA's GenAI Maturity Spectrum, which outlines the critical steps federal, state and local agencies should take to facilitate a smooth and successful GenAI journey.

GenAI Maturity Spectrum

Our GenAI Maturity Spectrum outlines the stages of GenAI adoption and maturity within an organization. It's essentially a roadmap to help agencies develop and use GenAI solutions. There are four main stages:

- Strategic planning
- Governance
- Pilot projects
- Scale

At first glance, each stage seems straightforward — but let's put the GenAI Maturity Spectrum to the test. First, we'll explore each stage to better understand the possible pitfalls that might occur. Then we'll discuss approaches that can help you avoid those pitfalls and deliver a successful GenAI project.



GenAI journey

Strategic planning	Governance	Pilot projects	Scale
Set high-level strategic objectives and align organizational budget and goals.	Establish governance frameworks, implement risk management protocols, ensure data readiness and assess the technology landscape.	Identify and prioritize use cases for pilot projects. Develop prototypes to test feasibility and demonstrate value.	Develop infrastructure and pipelines to manage proliferation. Prepare the organization for new role types, process changes and horizon compliance.

Enhanced citizen experiences

Increased productivity

Stage 1: Strategic planning — laying the foundation

To begin, agency leaders should step back and take a broad view of the organization's current maturity and the implications of using GenAI across the organization. Rather than diving into identifying specific use cases, first consider GenAI's impact on the organization and community/stakeholder needs.

Strategic planning involves setting high-level goals and aligning budgets and those goals across the organization. Doing so prioritizes valuable artificial intelligence (AI) projects and ensures efficient resource allocation. You're laying the foundation for a structured AI adoption approach that includes governance frameworks, risk-management protocols and data readiness.

Other key actions during this stage include developing strategies for security, compliance, technology rationalization, internal competencies and vendor capabilities.

By taking the time to focus on your end goals and build a solid strategic foundation, you'll be closer to implementing your AI solution successfully. It seems straightforward, but we've seen several common pitfalls during strategic planning.

Pitfall 1:

Lack of root-cause analysis

One of the major pitfalls during strategic planning is the lack of a thorough root-cause analysis. Agencies often select use cases based on what vendors or industry experts say. They don't review existing work and workflow problems or clearly describe what an AI project or feature would need to accomplish to be effective. This approach can lead to choosing projects that don't address your most critical issues.

For instance, an agency might prioritize a test AI project without analyzing whether it truly addresses the underlying cause of an operational challenge. Leaders might also ignore quick wins even when they could have a big impact on the broader organization, such as improving administrative workflows or enhancing the citizen experience.

Pitfall 2:

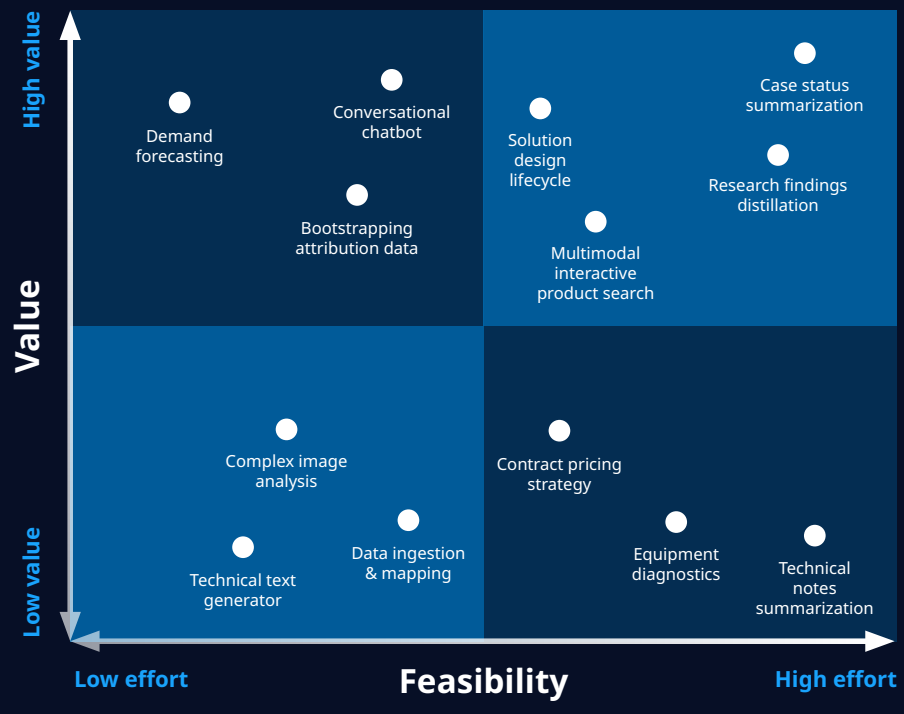
Misalignment with strategic imperatives

Another common pitfall is the misalignment of AI projects with the organization's strategic imperatives. This can result in wasted resources and efforts on projects that don't contribute to your overall strategic goals.

For example, a state Medicaid agency might invest heavily in AI-driven member communication and translation tools. However, this effort should fully integrate with a longer-term plan to connect members across all channels to improve communication and accessibility by providing real-time language translation services for healthcare recipients, members and providers. Otherwise, the agency might not realize the full benefits of the tool.

Our approach

Analyzing your organization's strategic imperatives ensures alignment with goals. The AI Payoff Matrix ranks opportunities by their alignment with these imperatives and their impact. It evaluates use cases based on their total return on investment. The vertical axis measures potential benefits, and the horizontal axis assesses implementation complexity or cost. This helps you identify and prioritize projects that offer the most value and are feasible, ensuring they address root causes and support long-term goals. It's important to note that each agency's project payoff matrix can be vastly different, and the matrix shown is for illustrative purposes only.



Stage 2: Governance — ensuring continuous success

Governance is complex. This stage involves establishing governance frameworks, implementing risk management protocols, ensuring data readiness, creating and following compliance policies, assessing the technology landscape and more.

Not only is it all-encompassing, but it must also be transparent, have built-in accountability and be scalable. The best governance framework ensures AI projects continue to align with organizational goals and values while staying flexible for future improvements.

Complexity can add to confusion, which can lead to easy missteps. What might those missteps look like?

Pitfall 1:

Lack of continuous monitoring

Without regular monitoring, AI systems can suffer from output drift over time, which means that the performance of the AI model can degrade as the data it was trained on changes. This can lead your organization to lose confidence in the AI system and the system itself to lose credibility.

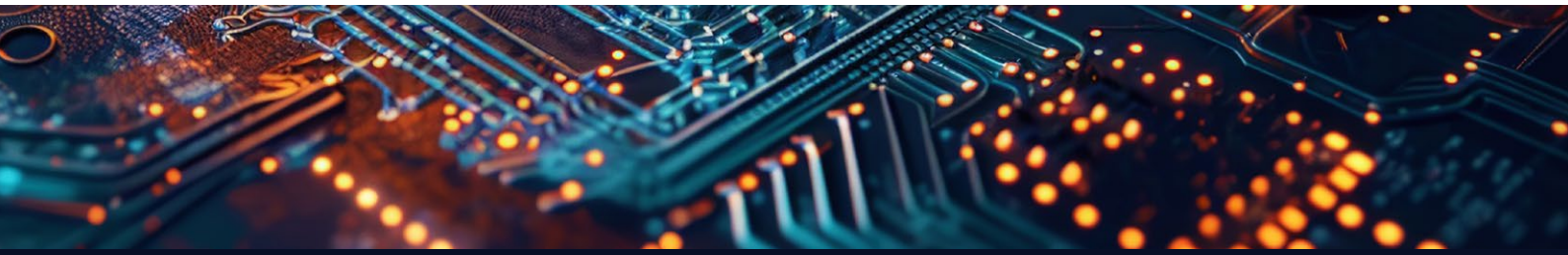
For example, if agencies like the Department of Motor Vehicles use an AI system for scheduling appointments and don't regularly monitor and update that system, it might start making scheduling errors, leading to staffing inefficiencies.

Pitfall 2:

Neglecting human and solution-development sides

Another common pitfall is neglecting either the human side or the solution-development side of AI initiatives, which work in tandem to ensure AI projects are successful. Governance must address both perspectives to be effective.

For example, if you neglect the human side, you might face resistance to adopting the AI system. On the other hand, if you neglect the solution-development side, the AI system might not be robust or scalable. Achieving the right balance is key.



Our approach

A comprehensive strategy will simplify the complexity of governance. Strong governance focuses on both human and solution aspects, along with the necessity of continuous monitoring. It ensures a smoother and more effective AI implementation.

On the human side, the focus is on change management, training and ethical considerations. This involves preparing employees for the changes AI will bring. It provides your teams with the necessary training to work effectively with the AI systems. And it ensures ethical guidelines are in place to address concerns about bias, privacy and transparency.

Engaging internal stakeholders early in the process and maintaining open communication helps build trust and acceptance.

On the solution side, you should establish clear protocols for AI development, deployment and monitoring. This includes setting up frameworks for data management, complying with regulatory requirements and implementing risk management strategies. It's important to have a robust system for monitoring AI performance. Adjusting that system as needed is also key. It ensures AI systems function as intended and deliver the expected outcomes.

Stage 3: Pilot projects — learn fast, fail fast

You put AI models to the test in the pilot project stage. Start by identifying and prioritizing high-impact use cases. Next, develop and test prototypes, learning from both successes and any unforeseen challenges. Finally, refine AI strategies before scaling.

Testing your AI models is exciting. However, you must make sure you don't get ahead of yourself. If you do, you may trip into potential pitfalls.

Case study: Intelligent case summarization with GenAI

The Crown Prosecution Service (CPS) is at the heart of the criminal justice system in the UK and is responsible for reviewing more than 450,000 cases every year. NTT DATA worked with CPS to help the organization create a Case Explorer tool that uses large language models to automate the summarization of complex case documents. This tool helps reduce delays across the justice system.

Balancing the acceleration of the case review process while maintaining legal rigor is fast-tracking CPS's transformation. This innovative solution brings immediate benefits to civil servants and enables prosecutors to serve the public more effectively.

Pitfall 1:

Ready-fire-aim approach

One of the major pitfalls in pilot projects is the "ready-fire-aim" approach. This happens when you jump directly into pilot projects without proper strategic planning. Doing so can lead to failures and missed opportunities because the projects are neither well thought out nor aligned with your agency's strategic goals.

For example, your agency might rush into developing an AI-driven chatbot to handle basic citizen inquiries without proper strategic planning. This can frustrate citizens if you fail to understand their critical needs or address data privacy and security. It can also lead to a lack of trust among users, as well as integration inefficiencies across platforms and scalability issues.

Pitfall 2:

Failure to identify potential challenges

Without pilot projects, you may not identify the challenges and obstacles that could arise when scaling AI solutions. This can be due to, among other things, data volume and diversity and the amount of time you dedicate to testing. Failing to properly test your pilot project can lead to repeated mistakes and inefficiencies during the scaling phase. This can result in the failure of the specific AI solution you've been testing or threaten the development of future AI solutions.

Our approach

The goal of pilot projects is to demonstrate success early and identify potential challenges upfront. It is where you both learn and fail, fast. Your AI solution will either adapt and succeed, or you will scrap it. Then, you start again with another pilot project. Either way, you must fine-tune your AI solution to minimize risk and maximize capabilities during the pilot project stage.

We use a combination of agile frameworks, accelerators and a library of government use cases to strengthen the pilot project lifecycle and scale AI solutions quickly.

Stage 4: Scale — expanding efficiencies and capabilities

The final stage involves integrating tested AI solutions into your organization's broader processes, ensuring they are scalable, robust and sustainable. This stage focuses on seamlessly integrating AI into existing workflows to boost efficiency and effectiveness. By doing so, you ensure AI solutions can handle increased workloads. Additionally, you need to establish management and support processes for the AI solutions and routinely monitor and update them to maintain their effectiveness.

By focusing on these aspects, your organization can maximize the benefits of AI solutions and achieve long-term success. Then it's time to celebrate, right? No, not so fast.

Case study: GenAI streamlines grant management

NTT DATA worked with a federal health agency to streamline grant management using GenAI. By automating the grant-review process, the agency can triage grants and extract basic information to be added to the case management system. This saves the time employees previously spent reviewing applications and entering information into the processing system. It frees them to focus on the core content of each grant proposal. The tool was successful for the agency, and other agencies could use it to handle grant management or other analogous processes.

Pitfall 1:

Set it and forget it

When organizations scale AI solutions, there's a risk of adopting a "set it and forget it" mentality. This means that once you deploy an AI solution at scale, you leave it to operate without ongoing oversight and monitoring. This approach can lead to several issues, including output drift and loss of credibility. A sound governance framework and a regularly maintained content library for the AI solution will help you avoid this pitfall.

Pitfall 2:

Failure to learn from pilot projects

If you don't learn from pilot projects, your organization may repeat the same mistakes and face inefficiencies during the scaling phase.

For example, an AI model developed for a small-scale pilot might not work well at scale due to differences in data volume and diversity. This can lead to disruptions in implementation and frustration with the tool, hindering adoption. When piloting projects, it is vital that you consider the scale of future implementations so you can test and adapt the tool to prevent challenges during a broader rollout.

Pitfall 3:

Lack of change management

Successfully navigating the GenAI era requires more than implementing technology; you need your culture to adapt and your workforce to upskill. Your organization must foster a supportive environment, encourage ongoing learning and stay informed.[1]

One of the major pitfalls in scaling AI initiatives is the lack of proper organizational change management. When organizations scale AI solutions, they often face resistance from employees who are accustomed to traditional methods. Without effective change management, your stakeholders may not buy into the AI initiative, causing it to fail. This can also have a negative impact on staff and employee satisfaction.

For example, a GenAI policy chatbot can make state Medicaid contact center operations more efficient by providing real-time, accurate and personalized assistance to staff regarding agency policies. This chatbot can use advanced AI algorithms to understand and respond to the staff's inquiries, ensuring they have timely information. The goal is to improve staff performance, reduce training time and comply with agency policies — ultimately creating more positive citizen experiences. Without a shared vision and staff buy-in, agents may see this augmentation as more of a threat than an opportunity. Creating a culture of experimentation and ongoing learning will enable your team to use the full capabilities of GenAI.

Our approach

When it comes to scaling an AI solution successfully, you cannot become complacent. Complacency breeds stagnation, which leads to poor performance, broken solutions, wasted resources and overall failure. We can't afford that in the public sector.

You can overcome this challenge by continually refining your AI solution with ongoing pilot projects during the scaling stage. Using agile frameworks, you can build confidence when testing the AI solution.

Additionally, you should adopt continuous monitoring when scaling. Staying on top of your AI solution as you input new data and increase system capabilities lets you make quick adjustments and lower any negative consequences.

Finally, go beyond basic change management. Provide training and support for all stakeholders and users to increase adoption and minimize resistance.

Conclusion

The public sector needs AI-driven solutions that solve practical problems and provide tangible value. As federal, state and local agencies strive to increase efficiency, reduce costs and improve outcomes with AI, they must adeptly navigate the inherent challenges of this technology to unlock its full potential. Our unique differentiators help ensure the successful implementation and scaling of AI solutions. This provides significant value to government agencies and the citizens they serve. Whether it's through strategic planning, robust governance, agile pilot projects or effective scaling, our expertise can help your organization confidently navigate the complexities of AI adoption all along the GenAI Maturity Spectrum.

About the authors

Noel Hara
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Noel Hara is a strategic and innovative thinker with over two decades of experience in both the public and private sectors. His deep knowledge of technology and applications, coupled with strong relationships with leading tech partners like Microsoft, AWS, Google, IBM, ServiceNow and Cisco, positions him as a go-to resource for government organizations tackling complex challenges. Noel has spearheaded the development and implementation of GenAI adoption strategies, helping clients leverage AI to deliver their missions with innovative solutions. He is also a key figure in driving operational efficiencies through modern workplace services, application modernization and cloud technology adoption, with a strategic focus on FinOps to optimize cloud spending and maximize technological investments. As a cancer survivor, he is particularly passionate about advancing healthcare missions through telemedicine, data analytics, AI and the deployment of Digital Humans.

Raleigh Murch
Managing Director for AI
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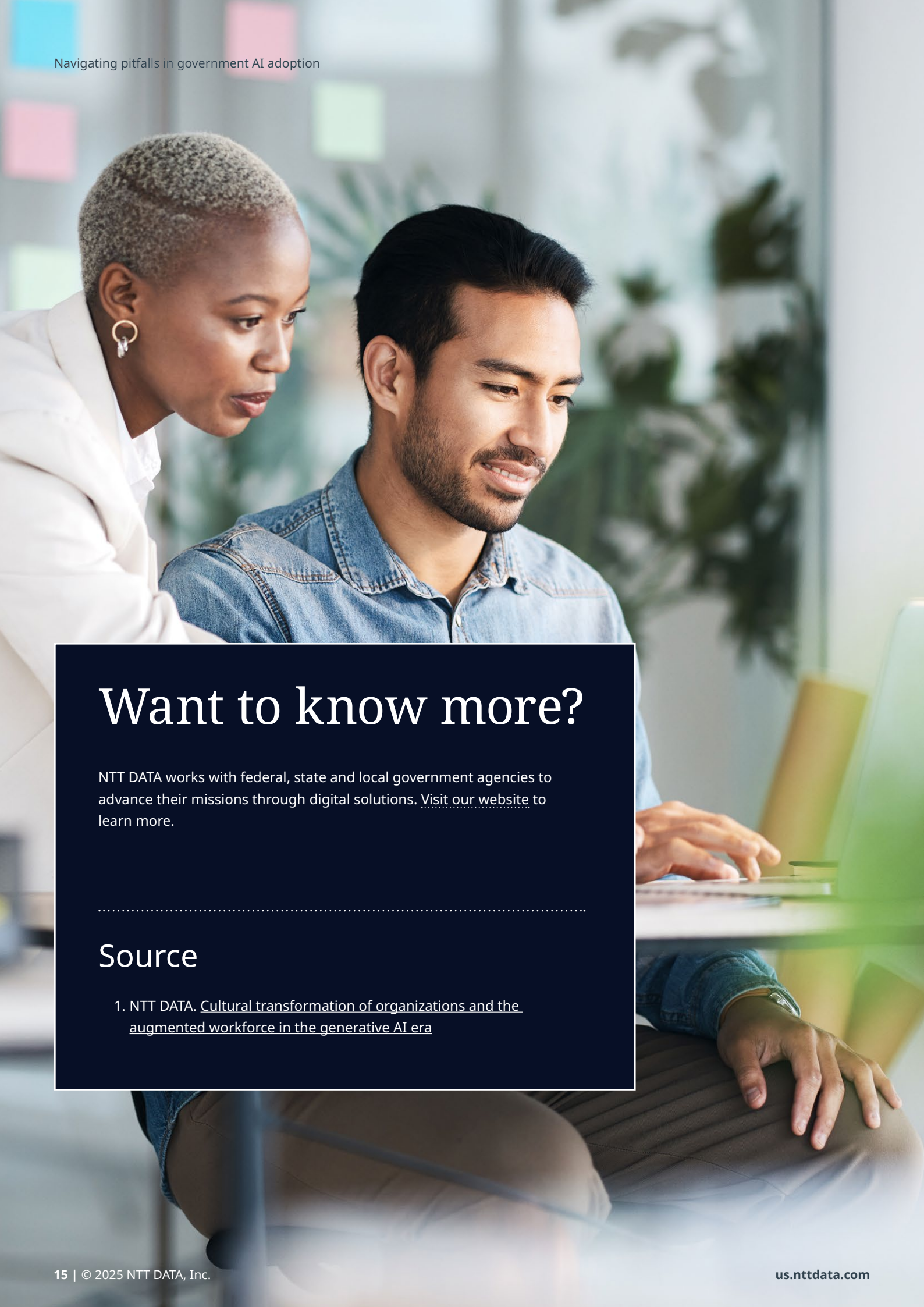
Raleigh Murch is a Managing Director for AI supporting NTT DATA's Healthcare and Life Sciences sector. Raleigh led the technology organization for Slalom for the SouthCentral Region and was a regional SME for GenAI. Before Slalom, Raleigh was a leader within AWS' Global Specialty Practice for artificial intelligence and machine learning. He focused on computer vision and edge IoT solutions. His past roles include a Silicon Valley founder for a maritime engine analytics company, embedded hardware prototype consultant, and a long career in industry as a product and engineering organization leader. Raleigh has been working in emerging technologies for most of his career. He works directly with company leaders to help define the art of the possible in the industry.



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Source

1. NTT DATA. Cultural transformation of organizations and the augmented workforce in the generative AI era

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