## Deloitte.

#### **DELOITTE INSIGHT**

Edward Van Buren, Government Al <u>emvanburen@deloitte.com</u> January 2025

# **Al:** Can smart technologies drive government efficiency?

## The concept

The public sector is hardly new to artificial intelligence (AI): Government agencies have long used AI-based technologies to improve customer service, detect fraud, make traffic more efficient, and free staffers to perform higher-level tasks.<sup>2</sup> However, with recent advances — most notably Generative AI (GenAI) — accelerating with solutions in the private sector, government leaders are looking to incorporate the latest capabilities to further boost quality and speed responsiveness while lowering costs through efficiency.

## The solution

Implemented effectively, AI technologies can help government agencies carry out their missions via a range of tactics: automating and augmenting tasks, streamlining regulations to reduce burdens, turbocharging decision-making, modernizing information technology (IT) systems, detecting and preventing fraud and improving the citizen experience. However, for the public sector, it's not enough to purchase new software with AI features. Results take commitment and investment from government leaders as well as a vision for what's possible.<sup>3</sup> Leaders could consider leveraging AI through a range of actions.

### Using AI — from GenAI to agentic AI — to automate tasks and create

efficiency. While most government systems are structured to automate core business processes, legacy technology and complex agency missions still demand extensive manual effort. Broader use of AI-based systems can help optimize resources by assuming burdensome, repetitious, lower-level tasks so government employees can focus on interpreting data, critical thinking and service delivery. Deploying AI for appropriate tasks can also save the workforce countless hours. Deloitte research estimates that smart technologies save 75% to 95% on tasks ranging from drafting reports on new technologies to routing documents to appropriate experts for review.<sup>4</sup>

By automating or augmenting daily work, AI applications can improve the employee experience, which can be critical in helping agencies meet mission demands. When used appropriately, GenAI can significantly reduce the time case managers, such as those working with veterans or disaster survivors, spend on paperwork and case management. This allows them to spend more time in the field with beneficiaries, improving outcomes and job satisfaction. Law enforcement agencies can use other GenAI tools to analyze and describe explicit content or otherwise gruesome

Deloitte research estimates that smart technologies save 75 to 95 percent of time for tasks ranging from drafting reports on new technologies to routing documents to appropriate experts for review.<sup>1</sup> images, relieving personnel of tasks that historically have led to high burnout and turnover.

If the long-anticipated federal employee exodus materializes due to eligible workers electing to retire,<sup>5</sup> AI technology can help increase productivity to mitigate talent gaps at agencies. In particular, agentic AI can take initiative and complete complex tasks with minimal human intervention, making a real difference.<sup>6</sup>

**Optimizing regulations to promote growth and innovation.** Agencies can use AI to streamline regulations — using natural language processing to search regulations to identify overlaps that can be streamlined, or to find those that directly contradict each other and should be harmonized — lightening the burden for private-sector research and development (R&D) and production.

Agencies can also use GenAl to produce clear, tailored explanations of regulations, making it easier for businesses to determine whether they're in compliance, and to proactively help companies understand the parts of their business that new regulations might affect.

**Fully harnessing data to turbocharge decision-making.** Agencies have access to more data than ever before, but they often struggle to make use of the data. Al can help bridge the gap between data availability and usability by enhancing the ability to process and interpret complex datasets to identify critical patterns and trends.

Natural language processing allows nontechnical users to access and understand data, which can democratize insights, promote transparency and accountability and reduce the burden on technical teams. Natural language interfaces also simplify complex searches of structured or unstructured data. A GenAI model trained on guidelines for government contractors can respond to natural language questions about allowable business expenses, providing the limits and the source of the information.

GenAI-based, predictive analytics can offer a glimpse into the future by parsing historical data, helping staffers improve planning and resource allocation by anticipating future trends and addressing developing challenges before they become problems. For example, agencies can use predictive analytics to anticipate impacts of natural disasters and allow earlier mobilization of critical resources.

#### Modernizing IT systems to improve operational efficiency and security.

Many government agencies operate on legacy technology that struggles to meet the scale and complexity of today's demands. Maintaining these systems is costly. The Government Accountability Office indicates that of the approximately \$100 billion spent annually on IT investments, agencies report spending 80% on upkeep.<sup>7</sup> Many of these systems lack sufficient documentation, challenging maintenance and modernization efforts. Al can help modernize legacy systems, reducing operational costs and enhancing system performance, reliability, security, and scalability in several ways, such as:

 Extracting critical requirements from legacy systems to ensure that essential functionalities are preserved during the modernization process;



- Translating, writing, and documenting code to enhance system maintainability; and
- Deploying modernized data management principles to improve data integration, accessibility, and security across IT systems.

**Preventing fraud to safeguard public resources.** Financial crimes targeting agencies are becoming more sophisticated, with new tools constantly coming available for malicious actors looking to exploit system vulnerabilities. To add to the complexity, the proliferation of digital technologies has significantly increased the volume of transactions and data that agencies are responsible for managing. Traditional methods for investigating and identifying fraud can't keep pace.

Agencies can benefit from using the same types of Al-based systems that financial institutions have deployed, analyzing transactions to flag deviations and suspicious activity for human-led investigation. Banks are also using large language models to detect signs of fraud in emails or to scan trillions of credit card data points to assess whether a transaction is genuine and even whether anomalous activity is intentional or a simple mistake. Other government agencies can take a cue from financial institutions' anti-fraud measures, including synthetic identity fraud.<sup>8</sup>

#### Enhancing service delivery to improve citizen engagement and

**satisfaction.** Government agencies can take inspiration from the private sector's actions when upgrading their own AI practices to meet evolving citizen expectations. Agencies can boost citizen satisfaction and engagement by using AI-based systems to tailor communications and improve accessibility, increase efficiencies and enhance public safety and government services. A better user experience isn't just good government policy; it can save agencies money and even improve citizens' trust.

Al tools can help personalize agency responses to constituents, analyzing people's preferences and behaviors based on profiles and past interactions. Conversational AI can make it easier for constituents with mobility or vision impairments to interact with agencies and access services in ways they can consume. AI-based applications can reduce wait times with efficient appointment scheduling. Agencies can also implement queue management systems like retailers use to predict peak usage times and add staff or other resources accordingly.

Smart technology can improve the ease and accuracy of agency data collection. Collecting taxes, administering passports, and other government functions depend on constituents filling out forms and submitting documents correctly. GenAI-based design can ease the process by helping agencies create more engaging websites and applications, while document AI services can help both users and agencies by flagging errors and reducing time and workload in reviewing and capturing data from forms and applications.<sup>9</sup>

## The results

Agency leaders can make the integration of AI into government operations more than a technological upgrade — it can be a strategic imperative. Smart technologies offer a pathway to a more efficient, transparent and responsive government, ultimately improving service 03 | **AI**: Can smart technologies drive government efficiency?



delivery, strengthening national security, and ensuring good stewardship of taxpayer dollars. To begin realizing these benefits, government leaders should consider:

- Forming support teams in their organizations to drive AI technologies across key program areas;
- Aligning on a technology architecture that can incorporate the new capabilities into legacy systems and data; and
- Shifting the paradigm from proofs of concept to taking pilots to production, and working toward extracting that value at scale

As AI technologies continue to evolve, it is crucial for government leaders to embrace these tools and harness their full potential to drive meaningful change.

<sup>2</sup> William D. Eggers, David Schatsky, and Peter Viechnicki, "<u>How artificial</u> <u>intelligence could transform government</u>," Deloitte Insights, April 26, 2017.

<sup>3</sup> William D. Eggers et al., "<u>Crafting an AI strategy for government leaders</u>," Deloitte Insights, December 4, 2019.

<sup>4</sup> Austin et al., "<u>Generative AI and government work: An in-depth analysis of 19,000 tasks</u>."

<sup>5</sup> US Office of Personnel Management, <u>2022 federal workforce priorities report</u>, May 2022.

<sup>6</sup> Mark Purdy, "<u>What is agentic AI, and how will it change work?</u>," *Harvard Business Review*, December 12, 2024.

<sup>7</sup> US Government Accountability Office, *Information technology: Agencies need* to continue addressing critical legal systems, May 10, 2023.

<sup>8</sup> Michael Purcell, "<u>Synthetic identity fraud: What is it and how to combat it</u>," Thomson Reuters, April 28, 2023.

<sup>9</sup> Alan Holden et al., *Designing for the public sector with Generative AI*, Deloitte, April 2023.



<sup>1</sup> Tasha Austin et al., "<u>Generative AI and government work: An in-depth analysis</u> of 19,000 tasks," Deloitte Insights, April 25, 2024.