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WHITE PAPER

The path to effective AI in the public sector starts with content management

How AI-powered content management can enhance government efficiency and citizen experience

Contents

Executive summary

The rapid advancement of artificial intelligence (AI) presents unprecedented opportunities for public sector agencies to revolutionize service delivery, optimize operational efficiency, and create more responsive, transparent governance models. Agencies of all sizes have accumulated vast amounts of information, most of it unstructured, which lies on their networks, disconnected and untapped ("dark data"). By using an AI-powered approach, agencies can unlock transformative potential.

By using AI, agencies can organize their information chaos and give employees the ability to find information when and how it's needed. Regardless of where the information is stored—or whether the information is in text, audio, video, or images—AI can help to connect and enable collaboration, making government work more effectively.

This white paper explores strategic approaches for integrating AI technologies across government services by addressing key challenges. You will learn how public sector law enforcement organizations are using AI to help identify suspicious activity. You will see how public sector communications agencies are deploying AI to organize decades of video archives. And you will see how transportation agencies are mitigating traffic congestion based on real-time AI-generated analytics.

Path to a data-driven government

Data drives everything that government does. Yet the data-driven government organization has yet to be realized.

Public sector agencies frequently struggle with complex, fragmented administrative processes, high operational costs, inconsistent service quality, prolonged response times, and limited resource allocation. Their data tends to be siloed and left mostly unexamined. Agencies may be sitting on an information gold mine, but they would never know it.

Achieving effective, data-driven government requires agility. This means a combination of information, automation, and cloud. Generative AI (GenAI) and large language models are set to transform every industry, including government. Ninety-one percent of government agencies surveyed by IDC anticipate that GenAI will have an impact on work transformation[1].

AI is reshaping our future in fundamental ways, a transformative catalyst for how users interact with information and complex processes. With GenAI, governments can dramatically improve efficiency and transform their mission in serving citizens.

Effective AI needs effective information management

GenAI's ultimate success relies heavily on trustworthy and well-managed information. Having a robust information management strategy builds a strong foundation to successfully apply AI and gain the AI advantage.

Modern information management helps government agencies:

- Find information easily
- Define information-governance standards
- Automate always-on data integration
- Secure information flows

Having a strong information management strategy is the key to having trusted data. AI needs trusted data to perform effectively. Effective AI requires curated and structured data and content that customers can trust. Creating data that will produce strong results with AI requires having data that is accurate, clean and timely, and then enriching and tagging that data with metadata. With a modern information management strategy, governments can build a strong foundation to successfully apply AI and gain the AI advantage.

1 IDC, Survey Spotlight: Governments Anticipate That Generative AI Will Impact Employee Work Transformation, August 2023

Considerations for AI use in government

AI has the potential to revolutionize the way we work. However, AI must be used responsibly, otherwise governments risk exacerbating social harms, or even posing risks to national security.

There are several considerations when implementing AI in government, including:

- **Privacy and compliance:** Citizen data must be handled with care, and in accordance with data privacy regulations to ensure privacy and compliance. Governments must ensure their use of AI complies with legislation, policy, and guidelines that govern the consent, collection, storage, use, and retention of personal information.
- **Security:** AI systems must comply with relevant security and data protection legislation, executive orders, and directives. For third-party AI systems, security needs to be considered throughout the software development process and should ensure access to data is restricted by role.
- **Transparency:** Citizens need to have clear insights into when and how GenAI is operating, so that users and agency IT personnel understand where the GenAI tool is getting its information and how it is making decisions.
- **Deployment strategies:** Many agencies prefer to keep their content within their own environment for security reasons. These organizations should consider a context-specific AI tool aimed at a specific location—deployment options include on premises or in government-sanctioned, centralized cloud environments.
- **Ethical AI:** With AI tools still in their infancy in most government agencies, it is important to keep a human in the loop to make each decision. Over time, this may change—but for now most agencies should treat AI as a recommendations engine, allowing a human being to check for accuracy and fairness.
- **Consider the future:** AI is rapidly evolving technology, moving from simple chatbots to “agentic AI.” Agentic AI will empower public sector employees to a greater extent than before. For example, in today’s AI, a public sector who asks “please send this document to my supervisor for approval” may receive a series of recommended steps to take before sending the document forward. Agentic AI will take that prompt and automatically execute the task with no further action needed from the employee.

These principles and frameworks make clear that while AI presents great opportunities to transform public service delivery, there is a need to ensure that government use of AI is done correctly. Operational insights can promote the positive use of AI while managing risks associated with the potential downsides of AI use in government.

AI use cases in the public sector

Government has been an AI adopter since the early days of handwriting recognition at the US Postal Service.

AI can be used with complex events, taking on structured and unstructured data and allowing customers to feed image recognition and machine vision into AI. In one large metropolitan area, AI is being used to identify traffic patterns from real-time video sources to enhance public safety and ease congestion. The transportation agency extracts one terabyte per month from CCTVs mounted on trains, and another eight petabytes per week from street cameras mounted at intersections.

AI can also be used to generate insights from data warehouses and data lakes. AI can be applied against text, voice, video, and audio to create voice-to-text and enterprise search. AI can also be applied to do visualization and data discovery. In the cybersecurity arena, machine learning can be used for predictive models, deep learning, and reinforcement learning. Another example of AI in the public sector includes auto-categorizing paper documents and attaching them to workflows where needed.

Understanding the importance of sharing use cases across government at this stage of AI adoption, the U.S. CIO Council has set up the Federal AI Use Case Inventory, populated by federal agencies. The 2024 inventory lists 1,757 use cases from 37 federal agencies, more than double the number of use cases published in the previous year.

Some example use cases:

- **Department of Health and Human Services (HHS)**, which uses generative AI to create synthetic health data for research and training purposes. This helps protect patient privacy while allowing researchers to work with realistic data.
- **Department of Defense (DoD),** which employs generative AI to simulate various combat scenarios and training environments. This allows for more effective preparation and strategy development.
- **National Aeronautics and Space Administration (NASA),** which uses generative AI to design and optimize spacecraft components. This technology helps in creating innovative designs that are both efficient and cost-effective.

Stages of AI adoption: A progressive framework

Agencies embarking on an AI transformation journey can approach their digital evolution through a progressive framework consisting of three distinct stages: Crawl, Walk, and Run.

In the **Crawl Stage**, agencies must build a robust foundation for AI adoption. This initial phase, typically spanning six to 12 months, involves a comprehensive organizational assessment. Agencies may conduct digital maturity evaluations, assess their existing technological infrastructure, and identify current data management capabilities. A critical component of this stage is developing workforce digital skills and establishing strong data governance frameworks.

During this preparatory period, agencies implement data collection and management strategies, create standardization protocols, and develop AI literacy programs. Cross-functional teams are formed to build awareness about AI technologies, and crucial ethical and governance guidelines are established. The key deliverables include a comprehensive AI readiness report, a data inventory, an initial AI strategy document, and a baseline digital skills training program. The resource investment is low to moderate, and the risk level remains minimal.

The **Walk Stage**, lasting approximately 12-18 months, represents a period of experimentation and pilot projects. Organizations select two to three low-risk, high-potential use cases to develop proof of concept (PoC) AI solutions. This stage involves exploring various AI and machine learning platforms, conducting limited-scope technology trials, and testing different implementation approaches.

Performance becomes a key focus during the Walk Stage. Agencies establish clear pilot project metrics, develop tracking mechanisms, and create feedback loops. They begin building internal AI project management skills, creating cross-functional AI project teams, and implementing knowledge-sharing mechanisms. The resource investment increases to moderate, with a controlled risk level. Successful pilot projects, initial performance metrics, technology feasibility assessments, and preliminary ROI analyses emerge as key deliverables.

The **Run Stage** represents full-scale AI deployment, typically spanning 18-36 months. Here, organizations transition from experimental projects to enterprise-wide AI integration. A comprehensive AI implementation strategy is developed, and a centralized AI governance framework is established. Successful pilot projects are scaled across multiple departments, and sophisticated AI and machine learning models are implemented.

This stage involves significant organizational transformation. Processes are redesigned to leverage AI capabilities, new workforce strategies are developed, and innovative roles are created. Advanced technologies are explored, including multi-modal AI solutions and integrated AI ecosystems. The resource investment becomes high, with a strategic risk level.

By progressively moving through these stages—Crawl, Walk, and Run—organizations can systematically integrate AI technologies, build capabilities, and transform their operational landscapes while managing risks and fostering innovation.

Real-world AI implementation case studies

The power of AI in government is best understood through concrete examples that illustrate its practical applications and tangible benefits. The United States Internal Revenue Service (IRS) offers a compelling case study in AI-driven efficiency, leveraging machine learning algorithms to dramatically improve tax fraud detection. By analyzing more than 245 million tax returns in 2022, the IRS implemented an intelligent system that reduced fraudulent claims by 37 percent, resulting in estimated annual savings of $3.2 billion and a significant improvement in detection accuracy.

State and local government agencies are leveraging AI-powered chatbots to provide faster service to constituents. Texas and Georgia use highly automated chatbots to direct “tier one” style information seekers to the right spot on their websites, while New York has deployed a generative AI chatbot to answer inquiries.[2]

The Spanish public broadcaster RTVE used AI to search through 50 years of video archives, comprising more than 20 million files. The AI-fueled enterprise search tool reduced search times by 90 percent and stopped the wasteful practice of re-creating video files already in existence.

Enterprise search need not be limited to a single government agency. A national law enforcement agency pools information from international, regional, local, tribal and federal justice systems. The AI system discovers relationships across disparate information sources, including facial recognition and vehicle attributes, and encourages collaboration among sister law enforcement organizations.

The State of California uses generative AI to enhance public safety by creating predictive models for disaster response and crime prevention.

2 Chatbot snapshot: How state and local government websites use AI assistants, StateScoop, July 17, 2024.

Resources

AI for the Rest of Government ›

AI with OpenText

At OpenText, we have been working in AI for decades, ranging from natural language processing to helping customers extract information, organize it, and use it to make decisions.

OpenText is embedding generative AI into our content management, business network, cybersecurity, customer experience, and IT operations software.

OpenText AI can support the public sector to:

- Get answers from documents
- Get analytics and summarizations around a contextually cohesive set of documents (aka business workspace)
- Search and analyze data by marrying content and metadata
- Explore Agentic AI
- Classify and categorize information—ongoing and on the fly
- Provide advanced metadata extraction
- Analyze rich media (video and audio)
- Automatically comply with government records requirements

Interested in AI for government, but don't know where to start? OpenText has created a guide to help you identify which OpenText AI tools are right for your organization. Play the AI match game to learn more.

Conclusion

Artificial intelligence represents a transformative opportunity for public sector agencies to reimagine service delivery, enhance operational efficiency, and rebuild citizen trust. Successful implementation requires strategic planning, ethical considerations, and a commitment to continuous learning and adaptation.

By embracing AI technologies thoughtfully and systematically, government organizations can create more responsive, transparent, and citizen-centric service ecosystems.

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