

AI in Cities

REPORT & TOOLKIT



About the National League of Cities

The National League of Cities (NLC) is the voice of America's cities, towns and villages, representing more than 200 million people. NLC works to strengthen local leadership, influence federal policy and drive innovative solutions.

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Acknowledgements

The authors wish to offer special thanks to David Park, Director of Data Analytics, Catherine Werner, Director of Sustainability and Innovation, Jordyn Taylor, Research Specialist, and John D'Angelo, Manager of Sponsorships, for their contributions to this report.

We would also like to thank Google for their support and contributions to this report.



Additionally, thank you to the following members of NLC's AI Advisory Committee for their insights and time throughout this year.

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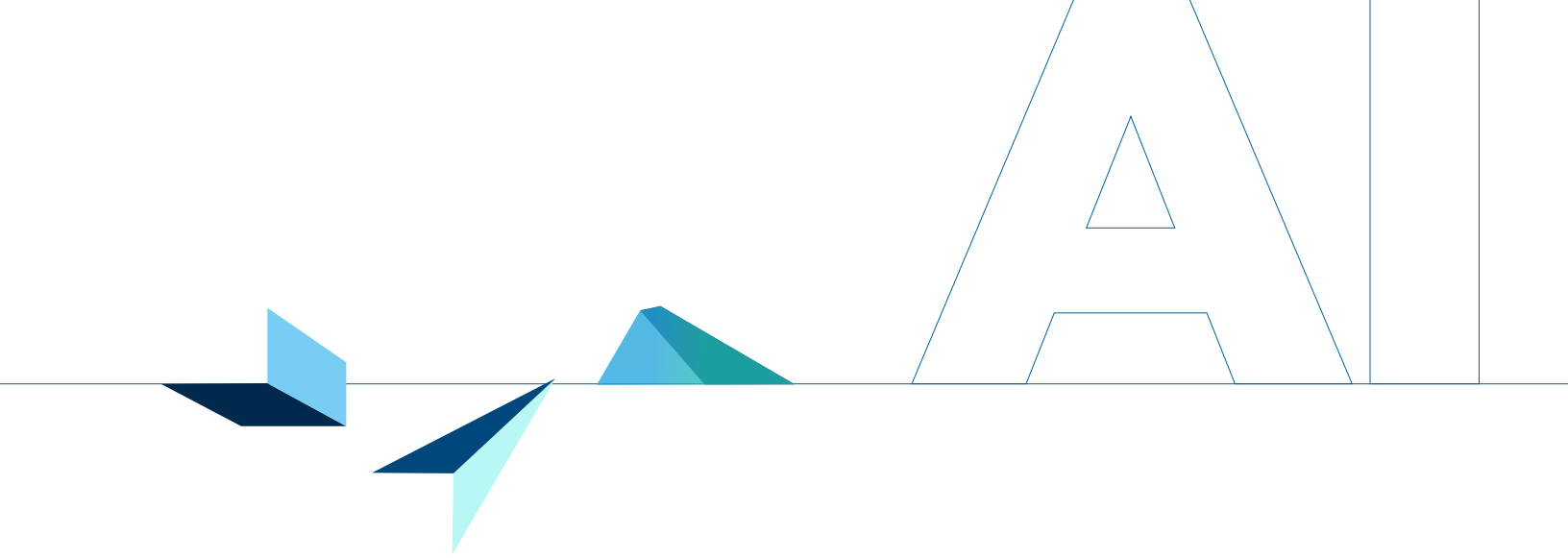
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Foreword

AI Advisory Committee Co-Chairs

The state of artificial intelligence today introduces us to applications and tools that were nearly impossible to imagine a few short years ago. Organizations across nearly every industry are grappling with how to navigate this crossroads. As local officials, we consider opportunities by first thinking about how we might deliver better outcomes for our residents. AI, like any technology, will not reinvent public government alone, but it does unlock tools and capacity to build more efficient, equitable and resident-centered futures for our communities.

We are pleased to present this report and toolkit on AI and cities. This resource represents a year's work by the National League of Cities' AI Advisory Committee. Formed at the beginning of 2024, our committee brought together 20 local government leaders – elected officials, technology and innovation executives, and state municipal league leaders – to better understand and evaluate the role and impact of AI-powered tools in local government. Our work centered on three critical themes.

First, we focused on demystifying AI to better understand the technology and its practical implications for local governments. We learned that while many cities are established AI users, recent advancements in the technology have significantly expanded accessibility and potential applications in cities, towns and villages of all sizes.

Second, we evaluated how local governments can use AI-powered tools responsibly and ethically. AI may expose risks such as misuse, opaque decision-making, and potentially harmful outcomes when improperly governed. AI implementation requires us to consider new strategies to manage these externalities, while reinforcing existing security and safety practices.

Finally, we explored the implementation of AI-powered tools in cities. AI is opening doors to creative practices for cities to improve services, assist their staff, and make better decisions. This report includes case studies demonstrating the benefits of AI-powered tools in cities.

There is no one-size-fits-all approach to AI adoption in cities. As you consider emerging tools, we hope this resource serves as a starting point to help you envision the role and impact of AI in your community.



Van Johnson

Mayor, Savannah, GA



Nikki Lee

Councilmember, Tucson, AZ



National League of Cities

As the National League of Cities celebrates our 100th anniversary and we reflect on what the past century has meant for our cities, towns and villages, we're also looking ahead to what the next one hundred years will bring. I hear from local officials every day who are excited about the potential of artificial intelligence (AI) to improve efficiency, solve problems, and ignite local economies. On the flip side, I also hear from leaders who worry about the risks of AI for the displacement of workers, public disinformation and new cybersecurity and data privacy threats. Over the last year, NLC's Artificial Intelligence Advisory Committee has played a crucial role in exploring these topics. AI is already starting to change how we do business and move through the world -- and these changes will only become more pronounced. NLC remains committed to supporting local governments as they navigate our changing world.

NLC's AI Advisory Committee has worked hard throughout the year to help local leaders really understand what those risks and benefits are, so they can chart a path forward. The committee's work helped NLC create resources for local governments to better understand AI, without exaggerations or fearmongering. This report and toolkit are a product of their work. I am grateful to the members of the committee for their work on this complex and delicate subject.

This report focuses on how cities can harness the power of AI to enhance public services and improve the quality of life for residents. From optimizing traffic flow and reducing energy consumption, to enhancing public safety and streamlining administrative tasks, AI offers a wealth of opportunities for cities to become more efficient, sustainable and livable. For city officials who are new to AI, the toolkit can help them identify ways their cities can best adopt new technologies.

Thank you to the AI Advisory Committee and Centennial Sponsor, Google for bringing this report and toolkit to life. These resources are invaluable as we help cities, towns and villages navigate this new technology.

Sincerely,



Clarence Anthony
CEO and Executive Director
National League of Cities

Google

Artificial intelligence holds immense potential to benefit communities of all sizes. Performing tasks that range from the everyday to the extraordinary, AI is positioned to help the National League of Cities (NLC) members improve the lives of their residents in a myriad of ways.

We're already seeing incredible progress: breaking down language barriers with Google Translate, providing early warnings of natural disasters with Flood Hub and FireSat, and helping local businesses reach new customers.

But perhaps the biggest opportunity AI presents is to help city governments streamline operations and better meet the needs of their constituents.

However, not all cities are utilizing or have access to AI. This risks turning the digital divide that has plagued many cities into an AI divide, with lasting impacts on urban communities.

City governments across the country have a vital role to play in this effort and stand to be big beneficiaries of AI, provided they think and act strategically. This NLC AI Toolkit is designed to help. It focuses on how cities can harness the power of AI to enhance public services and improve the quality of life for residents.

This toolkit builds on our continued work to deliver on our AI Opportunity Agenda, supporting governments in focusing not only on harms to avoid and risks to mitigate – but on opportunities to seize. Responsible and bold AI innovation that promotes public trust and adoption continues to be our focus at Google. Guided by our AI Principles, we continue to work in collaboration with industry partners, academia, and governments worldwide to develop and deploy AI with a focus on building solutions for society's biggest challenges.

We are excited to partner with the National League of Cities, providing tools, resources, and expertise to help its members leverage AI in ways that meet the unique needs of their communities. We believe that by working together, we can unlock the transformative power of AI to build a better future for everyone.



Karan Bhatia
Vice President & Global Head
Government Affairs & Public Policy Google



Exploring AI in Cities

REPORT



Understanding AI for Local Governments

DEMYSTIFYING AI

Artificial Intelligence (AI) is not a new concept; it has existed for decades. However, recent advancements have brought AI to the forefront of technological discussions, with potential to revolutionize the workforce, expand productivity, and transform various aspects of society and governance.

AI refers to technologies that simulate human perception, behavior, and decision-making.¹ It's important to understand that AI is an umbrella term encompassing various applications that often have little in common apart from learning from data. Like other general purpose technologies such as the internet and electricity, AI's impact depends on how it's applied.

AI

AI refers to technologies that simulate human perception, behavior and decision-making.



AI

Generative AI

AI that can create new content such as text, images, audio, or code based on patterns learned from existing data.

AI has seen rapid advancements, partly due to increased availability of computing resources and data. AI has garnered significant attention due to advancements and increased accessibility of Generative AI applications.² This subset of AI models can generate new content, relying on machine learning techniques to produce statistically probable outputs based on input data. These models can create content in the form of text, images, videos, and sound.

The release of generative AI applications in 2022 and 2023 allowed many to personally experience this technology for the first time. The ability of AI tools to comprehensively respond to written questions and generate new images and videos caught the attention of those who hadn't previously considered the power of this technology.

Generative AI is expected to have a significant economic impact in coming years.³ It may enable workers to focus on more creative and meaningful tasks rather than mundane ones that can be automated. It is critical that city officials understand their role in harnessing the potential of AI applications to modernize city services, and implement strong guardrails to responsibly implement and operate these new services.

KEY AI BACKGROUND CONCEPTS

The letters 'AI' are rendered in a large, white, outlined font. From the right side of the 'I', three horizontal lines extend to the right, then turn downwards and then right again, forming a circuit-like path that connects to the three sub-concepts on the right.

Artificial Intelligence (AI) is a field of science concerned with building computers and machines that can reason, learn, and act in such a way that would normally require human intelligence or that involves data whose scale exceeds what humans can analyze.

A teal circle with a white outline, connected to the main circuit line.


Natural Language Processing (NLP)

A branch of AI focused on enabling computers to understand, interpret, and generate human language.⁴

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Computer Vision

A branch of AI focused on training computers to understand and interpret visual information.

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Machine Learning

A subset of AI that enables computers to learn from data and improve their performance on a task over time without being explicitly programmed.

Types of AI Relevant to Local Governments

	APPLICATIONS	POTENTIAL RISK
<p>PREDICTIVE AI</p> <p>Systems that analyze patterns in existing data to make predictions about future events or trends.</p>	<p>Anticipating traffic patterns, predicting maintenance requirements for city infrastructure, assessing risk for emergency management.</p>	<p>Historical data may contain biases that manifest in predictions, potentially leading to unfair or inaccurate outcomes without adequate human review and oversight.</p>
<p>GENERATIVE AI</p> <p>AI that can create new content such as text, images, audio, or code based on patterns learned from existing data⁵</p>	<p>Translation services for public meetings and 311, creating data visualizations for urban planning projects, chatbots to assist staff or respond to resident inquiries.</p>	<p>Using generative AI that has not been procured through city government could place city and resident information at risk for exposure. Additionally, residents should be educated through literacy campaigns to use AI-generated content carefully, considering that models can make mistakes.</p>
<p>PERCEPTIVE AI</p> <p>AI tools designed to interpret and understand sensory inputs, primarily relying on computer vision and natural language processing.</p>	<p>Traffic monitoring and management, public safety and surveillance systems, environmental monitoring (e.g., air quality, waste management).</p>	<p>Perceptive AI in city government presents opportunities for enhanced services and safety using sensors and cameras. It also presents a risk of collecting and storing excessive personal data, which may violate data protection policies. However, careful data management, transparency, and consent are crucial to protect residents' privacy and uphold data protection standards.</p>



THE IMPACT OF AI ON THE PUBLIC SECTOR

Adoption of AI tools is impacting the workforce across sectors, and local government is not exempt. Local leaders are monitoring the impact that AI will have on their communities. They are considering the opportunities that AI presents for their local economy and starting to explore the use of generative AI within government operations and services.

This technology has the potential to improve government services and expand the capacity of local governments, but also comes with risks that governments must closely consider.

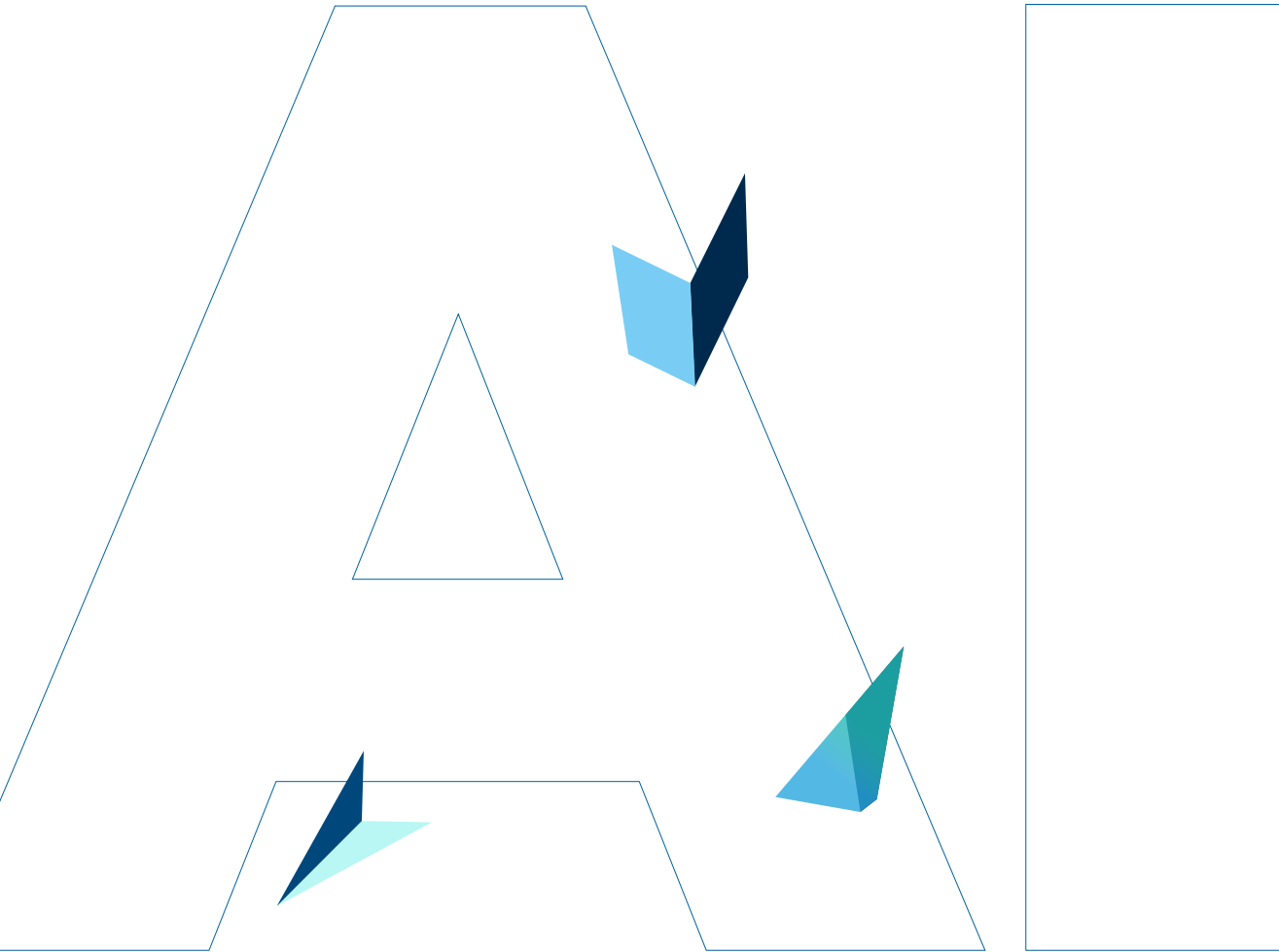
While many cities are exploring, testing, or implementing generative AI, most have not developed staff capabilities and use policies. An October 2023 survey by Bloomberg Philanthropies found that 96% of mayors expressed interest in using generative AI⁶. While only 2% of respondents were actively implementing generative AI, 69% reported that they were exploring or testing the technology for their municipality. Mayors envisioned that Generative AI will be most useful to address transportation and infrastructure issues, followed by public safety.

It's important to note that while local government use cases of generative AI are just starting to emerge, other forms of AI, such as predictive AI, have been used by local governments for years. For example, law enforcement agencies have long used automatic license plate readers, powered by perceptive AI, to help locate stolen vehicles and investigate other crimes.⁷

According to Bloomberg Philanthropies' 2023 survey:

96%
of mayors expressed interest in using generative AI

Responsible AI Use for Local Governments



As artificial intelligence becomes increasingly integrated into local government operations, it is crucial to understand both the potential risks and the principles of responsible use. Laws and proposed legislation to govern AI technologies and their use continue to evolve at a rapid pace. This section outlines key considerations for ethical AI implementation in municipal settings.

UNDERSTANDING POTENTIAL RISKS

AI can reflect or amplify existing biases present in training data.

AI tools are trained on real-world data and designed by real people. That means they can reflect existing biases. Local governments should use AI carefully to avoid perpetuating or amplifying existing societal biases, leading to unfair treatment of vulnerable communities. This could manifest in various ways, such as reinforcing inequitable resource allocation to discriminatory practices in law enforcement or social services.⁸

AI can produce inaccurate or misleading information.

Generative AI has the capability to produce content quickly, but it can also generate inaccurate or false information. For local governments, relying solely on AI-generated content without checking the output could lead to inaccuracies. This risk is particularly acute in public communications.

AI algorithms can lack transparency and explainability.

The complexity of AI tools can make it difficult to explain how decisions are made, leading to a lack of transparency. This “black box” problem is particularly concerning for local governments, which have a responsibility to be transparent and accountable to their residents. To maintain trust in local government, residents must understand how AI is being used to make decisions that affect their lives. Governments have a responsibility to distinguish between fully automated decision making and determinations that might be informed by technologies such as AI, but with human inputs and review processes.

AI tools require human involvement for accountability.

As AI tools are increasingly used in government operations and decision making, local governments have a responsibility to ensure human accountability for the AI tools in use. They should also build human oversight into processes involving AI to reduce potential errors.

AI tools may pose risks to data privacy and security.

Local governments handle vast amounts of sensitive personal data about their residents. Closed AI tools that have been procured or approved by their IT departments minimize risk. This will prevent sharing sensitive information with applications that may not be secure or may retain the data. Additionally, like any software, AI tools themselves could become targets for cyberattacks, potentially leading to large-scale data breaches.



CITIES LEADING WITH RESPONSIBLE AI STRATEGIES

There are many ways cities can manage the potential risks of using AI while still capturing benefits. Some municipalities have implemented staff guidelines and use policies to ensure that AI-powered tools are handled with proper care and attention. NLC's review of publicly available municipal policies and guidelines revealed six themes that underlie AI governance plans.

Accountability

Municipal staff using AI-powered tools have the obligation to be responsible for their outcomes. Mechanisms should be put in place to track, audit and address issues of adverse effects and misconduct. Accountability requires the delegation of clear roles and responsibilities among stakeholders and decision-makers involved in AI development and deployment.

- ◆ Provide clear documentation for residents whenever AI plays a substantive role in decision making.
- ◆ Create an AI oversight position or committee to monitor AI use across city departments. For example, **Washington, D.C.** hosts an AI Values Alignment Group composed of department heads and the public to oversee that the city's AI use is consistent with their commitment to AI Principles.⁹

Transparency

The processes, decisions and outcomes of AI tools should be made available and understandable to the public. This includes reporting out who is responsible for AI applications, how they benefit residents, and what city data they use. Transparency aims to build trust and meaningful avenues for residents to provide feedback.

- ◆ Clearly cite generative AI use in public-facing content and media.
- ◆ Host regular public forums to discuss the city’s AI initiatives and gather feedback.
- ◆ Develop a public resource that discloses AI tools or applications in use by the city. For example, the **City of Lebanon, NH** maintains an Algorithm Registry to provide transparency on its use of AI.¹⁰

Privacy Protection

Individuals’ personal data should be protected from unauthorized use. AI use should comply with existing laws, regulations and practices regarding private data. City workers should only use AI tools procured or approved by their IT departments. Sensitive information should not be shared openly with AI tools.

- ◆ Align AI use with existing data and privacy policies.
- ◆ Implement a privacy-by-design approach in all AI projects.
- ◆ Conduct regular algorithmic risk assessments to ensure personal or sensitive information is not exposed through AI models or violates citizens’ privacy. For example, the City of **San Jose** conducts an algorithmic impact assessment and mandates that vendors complete an AIFactSheet to demonstrate how they source and manage data.¹¹

Fairness & Equity

Incorporating fairness and equity should be intentional so that AI tools and applications do not create or exacerbate inequity. Measures should be taken to mitigate any discrimination and biased outcomes. Leaders should promote equal access to AI’s benefits.

- ◆ Ensure diverse representation in AI project development teams and community engagement processes.
- ◆ Conduct regular assessments of AI uses used in critical areas like education, housing and law enforcement. For example, before implementing generative AI tools, **Seattle** requires its employees to work with their department’s Racial and Social Justice Initiative team to complete the Racial Equity Toolkit, which outlines specific measures to evaluate AI-generated content for accuracy and freedom from bias or discrimination against protected groups.¹²

CITIES USING AI

Washington, D.C. hosts an AI Values Alignment Group composed of department heads and the public

The **City of Lebanon, NH** maintains an Algorithm Registry to provide transparency on its use of AI

The **City of San Jose** conducts an algorithmic impact assessment

CITIES USING AI

New York City's Artificial Intelligence Action Plan establishes the city's intention to develop an AI Risk Assessment and Project Review Process.

The **City of Chattanooga, TN**, has created a "Prompt Library" to help its staff effectively use generative AI tools like Gemini or ChatGPT.

Safety & Security

Leaders should ensure that AI tools are reliable and protected from threats. This principle involves implementing safeguards to prevent harm to people and property, ensuring the AI tools perform as intended, and protecting them from cyber-attacks and other malicious activities. It also includes contingency planning for potential failures or adverse scenarios involving AI technologies.

- ◆ Implement rigorous testing protocols for AI before deployment.
- ◆ Develop incident response plans for potential AI system failures or breaches.
- ◆ **New York City's** Artificial Intelligence Action Plan establishes the city's intention to develop an AI Risk Assessment and Project Review Process so that all AI projects will be assessed on the bases of data privacy, reliability, cyber security and more. The Office of Technology and Innovation will develop this process for ensuring the safety of AI tools, and will continuously update the process as new use cases and guidance emerge.¹³

Education & Training

Individuals should be equipped with the knowledge and skills to use AI effectively and responsibly. Training should be provided to educate employees on AI ethics and use cases. Training should be continuous and adapted with emerging applications of the technology.

- ◆ Partner with private sector and local educational institutions to develop AI literacy courses for staff.
- ◆ Create an AI resource center to provide ongoing support and information to staff and residents. For example, the **City of Chattanooga, TN**, has created a "Prompt Library" to help its staff effectively use generative AI tools like Gemini or ChatGPT. This library contains a collection of pre-written prompts designed to guide AI models in performing specific tasks. By providing staff with these carefully crafted prompts, the city aims to streamline the process of generating AI-assisted materials and ensure consistent, high-quality outputs across various departments.

AI POLICY SNAPSHOTS

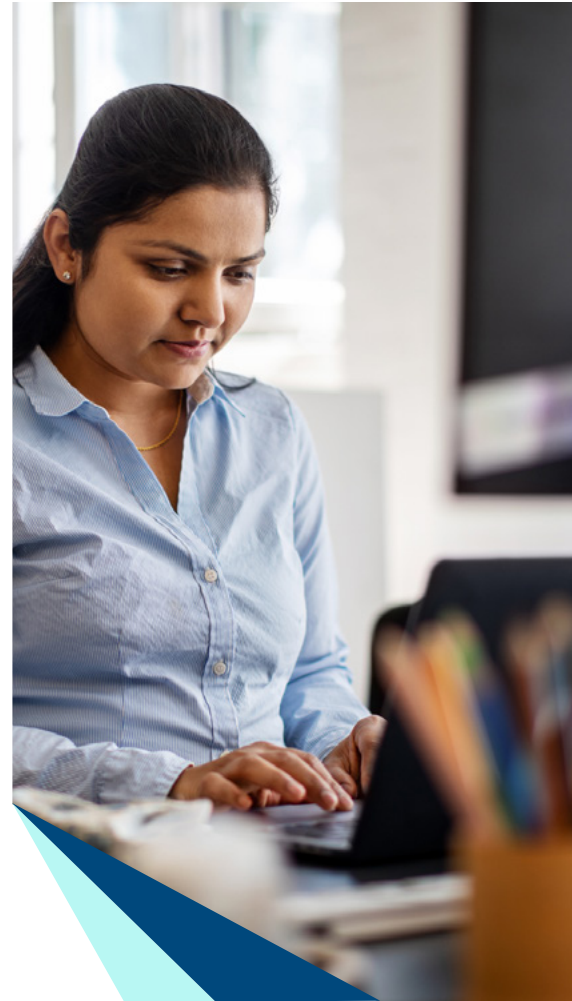
The following examples demonstrate various approaches taken by cities to govern internal use of AI. For further examples of local policies and guidance aimed at governing the use of AI tools by municipal staff, please see [NLC's AI Policy Dashboard](#).¹⁴

Responsible Experimentation in Boston, MA

Boston's interim guidelines on generative AI emphasize responsible experimentation. The policy encourages city staff to fact-check AI-generated content, disclose AI use in public-facing content and written reports, and avoid the sharing of sensitive information with AI tools. The city also acknowledges that generative AI, like all technology, is a tool, and users remain accountable for its outcomes.¹⁵

Ethical Governance in Tempe, AZ

Tempe's Ethical Artificial Intelligence Policy facilitates collaboration between all departments and IT for AI reviews, including semi-annual evaluations of AI solutions. The policy establishes a Technology and Innovation Steering Committee to oversee monitoring, reporting, public awareness and non-compliance measures. Additionally, it directs IT to create AI review processes and provide training programs to promote AI literacy, ethics, privacy protection and responsible AI practices among employees involved in AI solutions.¹⁶





Transparency Efforts in San Jose, CA

San Jose has published Generative AI Guidelines that are regularly updated in response to changing laws, technologies and best practices. Employees must record their use of generative AI through the city's generative AI reporting form and are encouraged to join AI working groups to help enhance the city's guidelines. The city also maintains an algorithm register to review and approve of all AI tools in use. Their AI review framework mandates that all algorithmic systems must be assessed by the city's Digital Privacy Office.¹⁷

Procurement and Accountability in Seattle, WA

Seattle's policy mandates that all software, even free or pilot products, must be submitted for approval through the city's procurement process.¹⁸ The policies also address intellectual property, attribution, reducing bias and harm, data privacy, and public records. Seattle IT plans to collaborate with stakeholders to research future policy implications, indicating a commitment to continual improvement.¹⁹

Harnessing AI for Local Governments

Local governments of all sizes face a universal challenge: balancing limited resources with the imperative to maximize value for residents. Cities grapple with a range of priorities but are constrained by the resources available to address them. The rise of AI across various sectors has prompted government officials to explore how these emerging tools can drive innovation in the public sector to enhance existing priorities and enable the pursuit of new ones.

The NLC AI Advisory Committee identified dozens of potential use cases for AI to energize the public sector. Their findings coalesce around three main categories: enhancing city services, supporting employee tasks, and bolstering analytics and decision-making processes.

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IMPROVING CITY SERVICES

The responsible use of AI technologies can help local governments deliver better products, services and outcomes for their residents. Across the public sector, there is enthusiasm for AI to make city information available in more languages, transcribing city meetings, help monitor and assess infrastructure conditions, review permitting requests, and more.

The Committee identified several ways AI can enhance service delivery but expressed the most interest in the potential for improved public communication and engagement, 311 services, and public safety.

CITIES USING AI

Dearborn, MI

Residents can now use translation to read online content and get assistance from a virtual chatbot .

Sunnyvale, CA

Residents who attend in-person city council meetings have access to closed captioning that offers in-time translation services.

Washington, D.C.

The AI assistant, called DC compass, can provide statistical summaries and generate visualizations of data.

Ann Arbor, MI

Ask Ann helps users find information about city services and projects, submit service requests, and contact staff

Offering Translation Services in Dearborn, MI

More than half of Dearborn's population of 110,000 residents speaks a language other than English at home. By leveraging AI, Dearborn is improving the accessibility of information available on the city website.²⁰ Residents can now use translation to read online content and get assistance from a virtual chatbot.

Assisting Public Meetings in Sunnyvale, CA

The city of Sunnyvale is creating more inclusive public meetings by utilizing AI-enabled translation services. Residents who attend in-person city council meetings have access to closed captioning that offers in-time translation services.

Accessing Open Data in Washington, D.C.

Washington, D.C. is piloting an AI assistant integrated with the jurisdiction's open data portal. This generative AI-powered chat interface lets users ask and receive answers related to the datasets on Open Data DC. The AI assistant, called DC compass, can provide statistical summaries and generate visualizations of data²¹. For example, DC compass can generate a map of bike lanes in DC, or tell you how many traffic accidents occurred in a given year. The tool was created in alignment with the Districts AI Values, which provide commitments to accountability, fairness, sustainability, and other key areas.

Chatbot Assistant in Ann Arbor, MI

The City of Ann Arbor has introduced "Ask Ann," an AI-powered web chat assistant integrated into the city's website. This chatbot uses large language model technology to provide 24/7 assistance to residents. Ask Ann helps users find information about city services and projects, submit service requests, and contact staff. The chatbot can communicate in 71 different languages. If users need additional help, they can send a message through Ask Ann for follow-up by city staff during business hours.²²

ASSISTING EMPLOYEE TASKS

AI can help employees with everyday tasks. While there is uncertainty around the impact of generative AI on the workforce, early studies suggest that tools like chatbot assistants help new and lesser-skilled employees. Other AI applications help employees with permitting, coding, and emergency services.

- ◆ Summarizing content like meeting notes, transcripts or articles
- ◆ Assessing permitting applications to determine whether a plan adheres to the code
- ◆ Answering questions about the city budget
- ◆ Assisting with grant writing and ensuring that requirements are met in each grant application
- ◆ Optimizing transportation routes



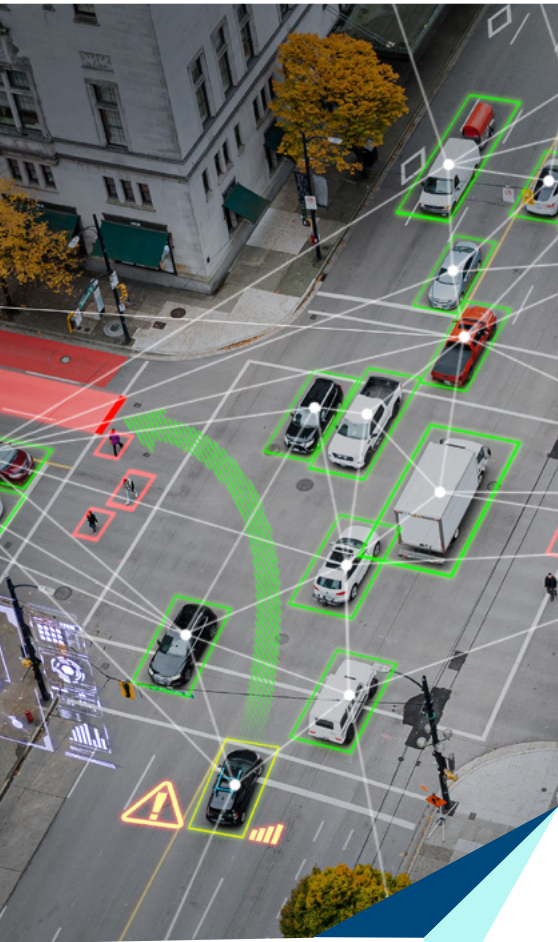
ANALYTICS AND DECISION MAKING

Water Infrastructure Management in Tucson, AZ

Tucson's Water Department uses AI software to manage its water pipe system. The AI analyzes patterns from past pipe failures to predict which pipes are most likely to fail next. It assesses over 4,600 miles of water pipes, assigning risk scores to each segment. This helps the city prioritize maintenance and repairs, focusing resources on the most critical areas. The system provides quarterly updates, allowing Tucson to proactively manage its water infrastructure, make data-driven decisions, and potentially save costs on unnecessary replacements.²³

4,600

miles of water lines analyzed by Tucson, AZ using AI software to prevent pipe failures.



Seattle, WA

Seattle, in partnership with Google Research, is participating in Project Green Light to enhance traffic analysis.

Detecting Potholes and Blight in Memphis, TN

The City of Memphis implemented an AI solution to address potholes and property blight. By analyzing video footage from city vehicles and combining it with existing data sources, the AI system can identify potholes with high accuracy. Similarly, the technology examines various property-related data to predict areas at risk of urban decay.²⁴

Public Safety in Warner Robins, GA

The City of Warner Robins, Georgia is leveraging AI to improve public safety and emergency management. The city has implemented a Digital Twin project that uses AI and machine learning to analyze crime data. This system helps optimize the placement of cameras for real-time license plate monitoring across the city. The use of smart cameras can pair with audio technology to detect gunshots and improve responses even before 911 is called.²⁵

Project Green Light in Seattle, WA

Seattle, in partnership with Google Research, is participating in Project Green Light to enhance traffic analysis and provide recommendations.²⁶ Leveraging Google Maps data, the AI-powered tool identifies inefficient signal timings. These insights support city traffic engineers in making decisions that can lead to smoother traffic flow and reduced emissions. Early implementations showcase promising results, with the potential to slash stops by 30% and CO2 emissions by 10%.²⁷

Increasing Graduation Rates in New York City, NY

AI-produced risk assessment scores can help identify vulnerable individuals for targeted interventions. For example, John Jay College, part of the City University of New York (CUNY) system, partnered with DataKind, a nonprofit organization, to develop an AI model aimed at increasing student graduation rates.²⁸ The model uses data such as years of enrollment, grades, and credit hours to identify students at high risk of dropping out. These students then receive proactive support, including one-on-one coaching from advisors. The implementation of this AI-driven intervention program increased John Jay's senior graduation rate from 54% to 86% over two years.

BARRIERS TO CITY AI USE

The NLC AI Advisory Committee collaborated to identify barriers to AI Implementation:

Resource constraints

AI has a start-up cost of staff and financial resources that many cities may not be able to accommodate in their current budgets. This initial investment requires concerted planning and political will.

Organizational culture change

City staff or elected officials may have concerns around using this technology to change the way things are done. It is important to work to shift the culture in your city to enable technological innovation.

Political considerations

Limited terms of elected officials often limits their ability to make the longer term investments needed to adopt new technologies like AI. The political will for these changes could come and go.

CITIES USING AI

Memphis, TN

The City of Memphis implemented an AI solution to address potholes and property blight.

Warner Robins, GA

The City of Warner Robins, Georgia is leveraging AI to improve public safety and emergency management.

New York, NY

The implementation of this AI-driven intervention program increased John Jay's senior graduation rate from

54% to 86%



Fear and privacy concerns

Some cities are afraid to utilize AI because of concerns around privacy and cybersecurity. Cities may not have the data privacy practices in place to implement AI tools in a safe and secure manner.

Data literacy and readiness

City staff may not have foundational data literacy skills that could be seen as a prerequisite to adopting AI. There is a need for foundational data literacy training.

Digital equity concerns

AI enabled tools require high speed internet. Many municipalities do not have universal access to high-speed internet, so there are concerns about equity if AI tools are only accessible by certain households or in areas where high speed internet is available.

Access to infrastructure

Metro areas lacking access to data centers face significant limitations in AI adoption. Data centers provide the crucial computing power and storage capacity needed to train and deploy sophisticated AI models. Without them, cities struggle to process the massive datasets required for AI applications in areas like transportation, public safety, and healthcare.²⁹



AI in Global Cities

Looking at cities outside of the United States offers a broader and more varied set of use cases of AI for local governance. Cooperating and learning with peer municipalities, both within the United States and internationally, can help municipalities make sense of this technology and imagine its uses within their own communities.

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USE CASES

Dublin, Ireland: Public Sentiment Analysis

Dublin uses AI to analyze social media posts, helping the city understand public opinion. An AI system processes residents' social media content, producing a monthly report called "The Dublin Beat." This report shows trending topics in different areas of the city and how public sentiment is changing over time. By using AI in this way, Dublin can better respond to residents' concerns and priorities.³⁰



Montreal, Canada: Snow Removal

Montreal employs AI to prevent fraud in snow removal operations. The system uses cameras on dump trucks to capture images, which an AI model then analyzes to determine the level of snow in each truck. This approach ensures accurate reporting by snow removal companies without compromising privacy, as the system only detects snow levels and doesn't capture license plates or other identifying information.³¹

Barcelona, Spain: Inquiry Management

Barcelona has implemented an AI system called MARIO to help manage resident inquiries more efficiently. MARIO uses natural language processing to analyze incoming inquiries and suggest the most appropriate categories for them. This has improved the accuracy of inquiry classification from 50% to over 85%, leading to faster response times.³²

Singapore: AI Staff Assistant

Singapore is integrating AI into its government operations through two main initiatives. The first, called "Pair," is an AI tool integrated with Microsoft Office to help civil servants with common tasks. The second, VICA (Virtual Intelligence Chat Assistant), powers various public-facing chatbots for different government agencies.³³

NETWORKS AND POLICY WORK

AI4Cities

AI4Cities is a collaborative project involving six European cities: Helsinki, Amsterdam, Copenhagen, Paris, Stavanger, and Tallinn. The initiative uses a pre-commercial procurement process to develop AI solutions for mobility and energy challenges, aiming to reduce CO2 emissions. With €4.6 million in funding, the project engages startups, small and medium-sized enterprises (SMEs), and other stakeholders to create innovative AI applications that support the cities' climate commitments.³⁴

Eurocities' Algorithmic Transparency Standard

The Algorithmic Transparency Standard is an initiative led by Eurocities' Digital Forum Lab, involving cities such as Amsterdam, Barcelona, Brussels, Eindhoven, Mannheim, Rotterdam, and Sofia. This project aims to help European cities provide clear information about the algorithmic tools they use in decision-making processes. The standard includes a common data schema for algorithm registries, guidance on its use, and promotes openness about how algorithmic tools support decisions.³⁵

Global Observatory of Urban Artificial Intelligence

The Global Observatory of Urban Artificial Intelligence (GOUAI) is a project with support from UN-Habitat that aims to promote ethical AI tools in urban environments. The project focuses on developing standards, monitoring AI initiatives, and researching key technological issues. GOUAI has created the Atlas of Urban AI, a crowdsourced repository of ethical AI initiatives and projects from cities worldwide.³⁶

City AI Connect

City AI Connect, launched by Bloomberg Philanthropies in collaboration with the Center for Government Excellence at Johns Hopkins University, is a global learning community and digital platform for cities to explore and advance the use of generative AI in improving public services. The platform facilitates the exchange of successful ideas, provides access to a resource hub, enables global networking among cities, hosts in-depth discussions, and offers insights from leading experts.³⁷



AI in Cities

TOOLKIT

Getting Started with AI

This toolkit helps municipalities consider how to get started with AI, how to approach AI implementation, and how to discern the city's readiness, goals, and suitability for AI solutions.

Landscape Analysis

- ◆ Survey staff
- ◆ Conduct focus groups/internal engagement

Readiness Assessment

- ◆ Assess current capabilities and competencies

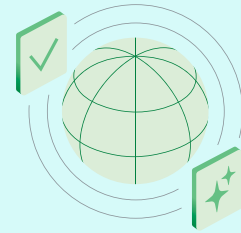
Develop Use Guidance and Policy

- ◆ Establish plans for guidance, education, assistance, ban risky use cases, etc.

Public Engagement

- ◆ FAQs; Discussion Guide

1 LANDSCAPE ANALYSIS



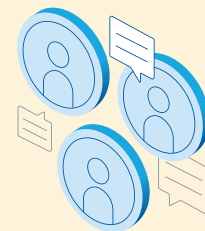
2 READINESS ASSESSMENT



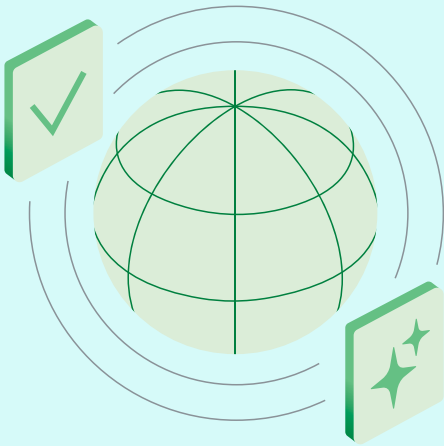
3 DEVELOP USE GUIDANCE AND POLICY



4 PUBLIC ENGAGEMENT



1 Landscape Analysis



PURPOSE

Departments and individual staff members within a city government often have varying levels of AI adoption and understanding. AI use may be siloed or unreported across teams. This tool aims to provide several options to get a comprehensive view of the current AI landscape within your city to enable informed decisions about organizational AI strategy and adoption.

HOW TO

This section provides several methods that a city can use to conduct a landscape analysis of AI usage and attitudes within city government. These methods can serve as a crucial step that will inform your AI policy for government. The three options can be used together or separately. These are just examples and should be tailored to the needs and circumstances of your specific municipality.



Option 1: CONDUCT A SURVEY

Objective:

Gather quantitative and qualitative data on AI usage and attitudes from city staff.

Steps:

1. Design the Survey: Craft questions that capture both the current state of AI usage and staff attitudes toward it. Consider offering both multiple-choice and open-ended questions.
2. Distribute the Survey: Send the survey to department heads, technology leads, and key staff. Consider using an online platform for efficiency.
3. Analyze Results: Compile and review responses to identify patterns and insights.
4. Follow-Up: Use interviews or focus groups for deeper insights if needed.

Suggested Survey Questions:

- ◆ How do your department and its staff currently use AI? AI refers to technologies that simulate human perception, behavior, and decision-making.
 - If not using, why?
- ◆ What AI tools have been useful to your department?
- ◆ Is your department using generative AI tools? Generative AI is AI that can create new content such as text, images, audio, or code based on patterns learned from existing data. Common tools include platforms like ChatGPT, Gemini, and Claude.
 - If yes, which ones?
 - If no, why not?
- ◆ Does your department use AI to support decision making?
 - If yes, for what kinds of decisions?
 - If no, why not?
- ◆ What future use cases are you most excited about?
- ◆ What questions or concerns about AI use do you have?
- ◆ Is there anything you need from [fill in the office administering the survey] to better utilize Generative AI? (i.e. access to tools, guidance, training, etc.)?

Option 2: CONDUCT FOCUS GROUPS

Objective:

Organize focus groups with key stakeholders across government. This format enables more in-depth questions about the participants' understanding of AI, their existing experience with it, and their perspectives on using it in government in the future.

Steps:

1. **Select Participants:** Choose a representative group of staff members from various departments.
2. **Organize Focus Groups:** Arrange sessions with small groups to discuss AI-related topics.
3. **Facilitate Discussion:** Use open-ended questions to explore attitudes and experiences.
4. **Analyze Findings:** Summarize key themes and insights from the discussions.

How you select members of the focus group or groups will depend on the size and structure of your local government. You may choose to convene one focus group with key people who serve in a variety of roles. If your city is larger, you could also conduct a focus group with each city department. This method will help you to understand the unique perspective and needs of each function in your city.

Option 3: CONVENE A CROSS-GOVERNMENT COMMITTEE OR WORKING GROUP

You may choose to convene a working group that can think about the use of AI in your city over a longer period. This working group can be tasked with developing guidelines, testing out tools, or communicating about AI to fellow city staff members.

Steps:

1. **Identify Members:** Select staff from various departments with relevant expertise or interest.
2. **Define Goals:** Set clear objectives for the working group (e.g., developing AI guidelines, testing tools).
3. **Hold Meetings:** Regularly meet to discuss progress, challenges, and strategies.
4. **Report Findings:** Provide updates and recommendations to city leadership.



AI

CASE STUDY:

Staff Engagement in San Francisco, CA

The City of San Francisco is leading an initiative to better understand AI usage across its municipal staff. This initiative, led by a special projects team, in collaboration with the city's innovation team, aims to assess and improve AI integration within the city's operations.

The team developed a comprehensive survey to evaluate AI adoption and identify needs across the city's 40+ departments. This survey was distributed to IT leads who provided insights into their departments' use of AI, including both current applications and reasons for not using AI-based solutions. In cases where responses indicated a need for further clarification, follow-up interviews were conducted to gain deeper insights.



Simultaneously, a cross-departmental working group was established to develop the city's AI guidelines. This group, composed of representatives from various departments, meets regularly to draft and refine policies that dictate how AI should and should not be used within city operations.

To support staff understanding of AI, the city produced an educational video introducing the concepts of generative AI. This resource is intended to enhance staff awareness and foster informed discussions about AI's potential and limitations.

Resources: Watch the city's [Generative AI Guidelines](#) video.

2 AI Readiness Assessment



PURPOSE

The Readiness Assessment aims to evaluate and enhance the organization's preparedness for AI implementation. It helps identify gaps and areas needing improvement before rolling out AI solutions.

HOW TO

This tool involves a series of questions designed to assess various aspects of the city's readiness for AI, including governance, data management, workforce capabilities, strategic alignment, ethical considerations and public engagement. Cities should use these questions as a starting point but should customize them to reflect the city's workforce. After conducting the assessment and compiling responses, cities can analyze the responses to identify the gaps in understanding. This assessment can then lead to an action plan to address those gaps and improve city readiness. By regularly reviewing and updating the readiness assessment, cities can monitor improvement and emerging needs.



Assessment Categories and Questions

General AI Governance

- ◆ Policy Priorities: Which city functions, areas or policy domains has your city prioritized for AI implementation?
- ◆ Communication: How does your city plan to communicate its AI use to the public?
- ◆ Transparency: Will residents be informed when AI tools may affect them? If so, how?
- ◆ Responsibility: Which department(s) are responsible for AI governance in your city?

Data Readiness

- ◆ Data Quality: Does your city have access to high-quality data necessary for AI projects?
- ◆ Data Governance: What data governance policies are in place?
- ◆ Privacy and Protection: How does your city ensure data privacy and protection?
- ◆ Data Sharing: Are there data sharing agreements between different city departments or other entities?

Workforce Capabilities

- ◆ AI Literacy: How would you assess the AI and data literacy among your staff and leadership?
- ◆ Specialists: Does your city employ data scientists or AI specialists?
- ◆ Training Programs: What training programs exist for upskilling employees in AI-related skills?
- ◆ Workforce Preparation: How prepared is your workforce for the changes AI might bring?

Strategic Alignment

- ◆ AI Strategy: Does your city have an AI strategy or roadmap?
- ◆ Integration: How are AI initiatives integrated with overall city goals?
- ◆ Budget: Is there a specific budget allocated for AI projects?
- ◆ Leadership Support: How supportive is city leadership of AI adoption?

Ethical and Legal Framework

- ◆ **Ethics Guidelines:** Has your city developed AI ethics guidelines or policies?
- ◆ **Compliance:** How does your city ensure compliance with relevant data protection laws?
- ◆ **Risk Management and Liability:** Has your city identified potential areas of risk or liability for AI use and developed a plan for limiting those?
- ◆ **Transparency and Explainability:** What measures are in place for transparency and explainability of AI tools?
- ◆ **Bias Mitigation:** How does your city address potential biases in AI tools?

Partnerships and Ecosystem

- ◆ **Vendor Collaboration:** Does your city collaborate with AI vendors or service providers?
- ◆ **Academic Partnerships:** Are there partnerships with local universities or research institutions on AI initiatives?
- ◆ **Networks:** Is your city part of any government AI networks or communities of practice?

Public Engagement

- ◆ **Communication:** How does your city communicate to residents about AI use in government?
- ◆ **Public Perception:** How does your city gauge public perception of AI use in government?
- ◆ **Feedback Mechanisms:** What mechanisms exist for resident feedback on AI initiatives?

Infrastructure and Technology

- ◆ **Hardware:** Does your city have the necessary hardware to support AI implementations?
- ◆ **Procurement:** How does your city address AI in purchasing and procurement processes?
- ◆ **Cybersecurity:** What is the state of your city's cybersecurity measures?

3 Developing a Municipal AI Use Policy or Guidelines



PURPOSE

To create clear and actionable policies and guidelines that govern the use of AI within the municipality. This ensures that AI initiatives align with organizational values, legal requirements and ethical standards.

HOW TO

This tool involves defining principles and drafting policies to guide the development, deployment, and management of AI technologies in city operations.



Steps to Develop AI Use Policy or Guidelines

Establish Guiding Principles/Values

- ◆ Define Core Values: Outline the core values that will guide AI use, such as transparency, fairness, and accountability.
- ◆ Set Ethical Standards: Determine ethical standards that AI tools must meet, including considerations for bias and fairness.

Define AI

- ◆ Scope of AI: Clearly define what constitutes AI for the purposes of the policy. Include examples such as machine learning, natural language processing, and automation.
- ◆ Types of AI Tools: Specify the types of AI tools covered by the policy, including those used for decision support, data analysis, and automated services.

Define Scope of Policy

- ◆ Audience: Identify which departments, projects, or AI applications the policy will cover.
- ◆ Objectives: Outline the objectives of the policy, such as ensuring responsible AI use and mitigating risks.

Specify Roles, Responsibilities and Deadlines

- ◆ Roles and Responsibilities: Assign roles and responsibilities for AI governance, including oversight, implementation, and compliance.
- ◆ Deadlines: Set deadlines for policy adoption, review, and updates.

Define Prohibited Uses

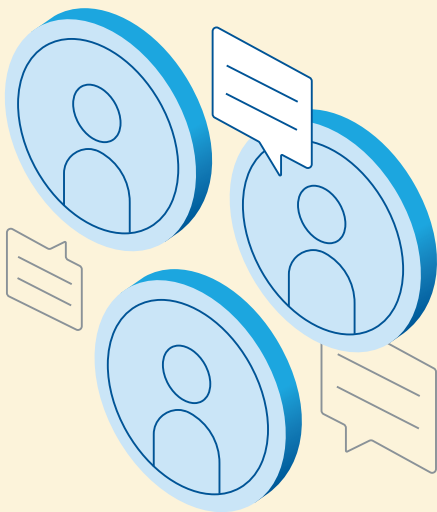
- ◆ Risky Applications: Identify and prohibit specific AI applications that pose high risks or ethical concerns (e.g., facial recognition for surveillance without proper safeguards).
- ◆ Regulatory Compliance: Ensure that prohibited uses align with relevant laws and regulations.

Review and Update Regularly

- ◆ Changing Landscape of AI: Revisit and update the policy regularly to reflect evolutions in technology, available tools, changes in laws and regulations, or other needs.

Explore NLC's City AI Governance Dashboard to see examples of AI Use Policies.

4 Public Engagement



PURPOSE

To provide a set of answers to residents' or city employees' commonly asked questions about AI use in city government.

HOW TO

Use this document as a starting point to address common concerns around AI use. It is meant to be adapted as a "FAQ" webpage that can live on your city's website where you can direct residents when they ask common questions about AI. This document contains a list of likely questions and suggested ways of responding to them. This can serve as a starting point to address common concerns. Consider what you have heard from residents and staff and customize this document to address the specific concerns of members of your community.

This template includes suggestions for how to create language that is specific to your community along with text that can be used as-is to answer these questions. The text that can be used as-is is italicized.



FAQ TEMPLATE

QUESTION:

What is Artificial Intelligence?

Answer: *AI refers to technologies that simulate human perception, behavior, and decision-making. It's important to understand that AI is an umbrella term encompassing various applications that often have little in common apart from learning from data.*

AI is not a new concept, it has existed for decades, but over the past few years AI has garnered significant attention due to recent advancements in Generative AI.

QUESTION:

How is the city thinking about AI use within the city?

Answer: You may respond by describing your broader goals around using AI. You may also describe the principles that your city holds when it comes to AI.

Here are some examples of principles that you could highlight:

Improving city services: Talk about how you envision AI to improve outcomes for residents.

Enhancing staff capacity: Detail how AI can allow the municipal workforce to build more efficient operations and automate routine tasks.

Deeper insight and analysis: Discuss the importance of data in decision making, and how AI will help your organization to leverage city-wide data to help bring real time information to important decisions like repairs, budget allocation, and more.



QUESTION:

How is AI being used by [fill in your municipality]?

Answer: It's best to be specific about the programs you are using, city departments that will be participating, and desired outcomes. You may respond with the things that the city hopes to accomplish, or processes it is working to improve, through AI. If the city is not actively using AI, you can share that, along with any plans or visions to utilize AI in the future.

QUESTION:

Does this mean decisions or policies are being made by computers?

Answer: *While AI is a valuable tool for processing large amounts of information, it is not a replacement for human judgment. AI tools can be used to analyze data and provide recommendations. However, city staff and leaders are always ultimately responsible for the final output or decision, even when assisted by AI.*

QUESTION:

What kinds of AI are being used by the city?

Answer: You should answer this question according to what your city is using. Below are descriptions of Predictive, Generative, and Perceptive AI that you can utilize.

Predictive AI: *Systems that analyze patterns in existing data to make predictions about future events or trends.*

Generative AI: *AI that can create new content such as text, images, audio, or code based on patterns learned from existing data.³⁸*

Perceptive AI: *AI tools designed to interpret and understand sensory inputs, primarily relying on computer vision and natural language processing.*



QUESTION:

Is my data safe?

Answer: *Local governments [or fill in city name] regularly handle(s) sensitive data about residents. The use of AI, particularly generative AI, introduces new risks to data privacy and security. Practices such as establishing rules for AI use, ensuring compliance with risk management policies, and incorporating strong cybersecurity habits throughout city departments helps to minimize threats to privacy and security.*

Here you also may want to add any risk management or data privacy procedures that your city has in place.

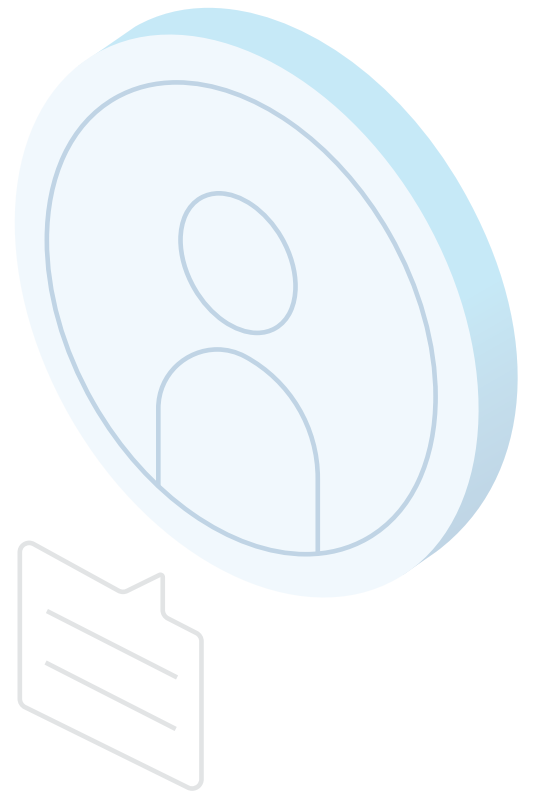


QUESTION:

How will this affect municipal staff?

Answer: This is a good place to write about any internal AI use policy that the city may have or plans to develop. This is also a good place to communicate the staff engagement you are doing around AI use (i.e. a committee, working group, staff survey, etc.).

City staff may be asked to comply with new policies governing the use of AI tools or to undergo training to develop new skills to effectively and responsibly use AI. The implementation of AI tools by the city is not intended to replace staff or eliminate jobs in municipal government, but rather to expand staff capacity and free staff to focus time and attention more strategically on important priorities for their work.



QUESTION:

How will the city manage AI risk?

Answer: Articulate your plan to steer the applications, ethics, and governance of AI in your city. This could be an AI strategy, roadmap, or set of principles. You may choose to elaborate on some of the principles listed below:

Accountability: *Mechanisms should be put in place to track, audit and address issues of adverse effects and misconduct. Accountability requires the delegation of clear roles and responsibilities among stakeholders and decision-makers involved in AI development and deployment.*


Transparency: *The processes, decisions and outcomes of AI tools should be made available and understandable to the public. Transparency aims to build trust and meaningful avenues for residents to provide feedback.*

Fairness and Equity: *The use of AI tools should be careful not to exacerbate existing inequalities. Measures should be taken to ensure there is equal access to AI's benefits, and to eliminate any discrimination or biased outcomes from any city service.*

Education and Training: *Individuals should be equipped with the knowledge and skills to use AI effectively and responsibly. Continuous training should be provided to educate municipal employees and residents on applicable AI ethics and use cases.*

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