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## Leveraging Generative AI for Safe and Effective Government Service Delivery

Enhancing Customer Experience in the Public Sector Henri M. Hammond-Paul, MPA - Fellow, The GovLab



## Hello!

### I am <mark>Henri Hammond-Paul</mark>

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## What we do

## Free upskilling for public professionals by public professionals

Philanthropically-funded, evidence-based online learning InnovateUS provides no-cost, at-your-own pace, and live learning on data, digital, innovation and AI skills for public professionals.

To do this, we work closely with learning, innovation and data leaders in government to support them in providing key learning content to upskill their workforce.



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We are governed by a coalition of public sector learning and innovation leaders from **13** participating states, plus:

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- Miami-Dade County/Community College
- Beeck Center
- U.S. Office of Personnel Management (OPM)
- U.S. Department of Agriculture (USDA)
- Montgomery County, Maryland
- The City of Boston

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Our goal today is to demystify GenAI and show New Mexcio Government how it can be a valuable tool in your toolkit







#### Artificial Intelligence (AI):

**Definition:** Technology that mimics human intelligence.

- Narrow AI: Specializes in one task (e.g., voice assistants, facial recognition).
- General AI: Can perform any intellectual task (future goal, not yet achieved).













#### **Generative Al:**

**Definition:** Al that creates new content (text, images, audio).

- GANs: Produces realistic images and data.
- Transformers: Generates human-like text (e.g., chatbots, content creation).



Potential Impact

- **Efficiency** in policy making and service delivery
- Enhancing **productivity**
- Making government more transparent and accessible



## **Use Cases for genAl**

How can public officials in New Mexico use genAI to help their work and support their constituencies?



Use Case 1: Drafting Communications Use Case 2: Content Summarization Use Case 3: Data Analysis & Visualization





Use Case 1: Drafting Communications **Example:** Using GenAI to draft emails, letters, and memos **Benefits:** Time-saving, improved clarity



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Use Case 2: Content Summarization Example: Summarizing long documents or meeting minutes Benefits: Quick information retrieval, better decision-making





Use Case 3: Data Analysis & Visualization Example: Analyzing public feedback, generating reportsBenefits: Enhanced data insights, efficient report generation

## Why Generative AI Matters for Government:

When used responsibly, genAI could help us create governments that **CARE** more:

- **C**onversational
- Accessible
- **R**esponsive
- Evidence-based

#### genAI can help us create a more <mark>conversational government</mark> where we can supply information, benefits, and services 24/7

In Heidelberg, Germany, they are using genAl to answer resident questions 24/7 via their homepage.

The Borough of Prospect Park, NJ–-which has a population just over 6,000–-has trained an AI chatbot with information about the town's policies and services so that residents can get answers to questions like "what kind of permit do I need to open a cafe?" or "I just moved here, what do I need to do" and get answers 24/7.

**Case Study** 

#### genAI can help us create a more accessible government.

We can use these tools to translate "government-speak" into plain language in both English and other languages. In Massachusetts, the Executive Office of Energy and Environmental Affairs is using genAl to help residents search for grants in multiple languages.

New Jersey Department of Labor used GenAl to rewrite communication templates for unemployment benefits, which resulted in a 75% decrease in response time from residents

#### genAI can help us create a more accessible government.

India's parliament uses Digital Sansad AI software for real-time translation into 22 regional languages. In the Netherlands, Speech2Write converts speech into edited text. The EU parliament also uses AI to transcribe sessions, with human translators reviewing before publication.

Parliament of India, https://sansad.in/, accessed January 7, 2024.

<sup>&</sup>quot;Artificial Intelligence: Innovation in parliaments," Inter-Parliamentary Union Innovation tracker, Issue 4, Feb 12, 2020, https://www.ipu.org/innovation-tracker/story/artificial-intelligence-innovation-in-parliaments.



#### genAI is beginning to support governments to be <mark>more</mark> <mark>responsive.</mark>

In Massachusetts, the Department of Transportation has built a customer service chatbot that phone representatives can use to answer questions accurately and consistently when it comes to complex policies regarding public transportation and eligibility for the paratransit services.

**Case Study** 

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#### governments are beginning to use genAI to do simple data analysis, making their work more <mark>evidence-based</mark>

GenAI can quickly create tables and charts and extract insights from tables, charts and other data visualizations as well as help write computer code to do more sophisticated statistical analysis. In the UK, proposal attracting 30,000 responses requires a team of around 25 analysts for 3 months to analyze the data and write the reports. In their Analyser project, they use genAI to automatically extract patterns and themes from comments and present those to decision makers.

**Case Study** 

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#### governments are beginning to use genAI to do simple data analysis, making their work more <mark>evidence-based</mark>

Trained on images of past wildfires, ALERTCalifornia's Al system made Time Magazine's list of inventions of 2023 because it can scan new images from 1,050 cameras to provide early warnings and reduce the risk of devastating fires. In two months alone, the UC San Diego system spotted 77 wildfires before anyone called them in.

Press Release: "ALERTCalifornia and CAL FIRE's fire detection AI program named one of TIME's Best Inventions of 2023: The artificial intelligence tool improves firefighting capabilities through the use of actionable, real-time data," October 24, 2023, https://alertcalifornia.org/alertcalifornia-and-cal-fires-fire-detection-ai-programnamed-one-of-times-best-inventions-of-2023.

#### recommendations

- 1. **Designate a Senior AI Leader:** Assign a trusted leader with the authority and expertise to guide AI deployment, influence service design, and oversee governance and technical strategies, ensuring AI is used effectively and responsibly.
- 2. Develop an AI Learning Agenda: Establish a continuous learning approach to AI within your organization, involving public, private, and academic stakeholders. Measure the effectiveness of AI initiatives and adapt strategies based on outcomes.
- 3. Implement Transparent Al Guidance: Be clear about AI deployment, assessing risks, preventing bias, and creating acceptable use policies. Engage stakeholders early to foster understanding and alignment.
- 4. Leverage Existing Resources for Quick Wins: Identify and address key issues using current capabilities, focusing on quick wins that improve public outcomes and relieve workforce burdens without disrupting essential services.
- 5. Create Space for AI Experimentation: Encourage experimentation with AI by integrating it into performance routines. Clearly define success metrics before implementation, monitor progress, and provide the necessary support and autonomy for your team.





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Learn continuously and stay updated

Evaluate outputs critically



Maintain human oversight and control



Cart small

Be transparent about Al use Prioritize low-risk applications





#### 💁 – Risk 1: Data Privacy

When using these tools, it's crucial to be aware of what information is safe to input. Avoid entering sensitive or personally identifiable information into GenAI tools. Always review the terms of service of the GenAI platforms you are using to understand how your data will be used and stored.

#### Do's

- Use GenAI for processing public information or non-sensitive data.
- Check your organization's policies on data usage with AI tools.
- Consider using paid versions of GenAl tools that offer better data privacy protections.

#### Don'ts

- Do not input personal information about yourself, colleagues, or residents.
- Do not use GenAI tools for processing confidential or proprietary information.
- Avoid using free versions of GenAI tools for sensitive tasks without understanding the data policies.



Another significant risk with GenAI is hallucinations, where the AI generates incorrect or completely made-up information. This can happen because GenAI predicts the next word or phrase based on its training data, which can sometimes lead to inaccuracies.

#### **Identifying Hallucinations:**

- Cross-check AI outputs with reliable sources.
- Use multiple GenAI models to compare results.
- Be skeptical of overly detailed answers that seem too good to be true.

#### Mitigating Hallucinations:

- Set the AI's temperature setting to a lower value for more precise responses.
- Use AI tools that incorporate real-time web search and provide citations.
- Practice writing detailed and specific prompts to guide the AI accurately.
- Always review and verify the AI-generated content before using it.



Since GenAI is trained on vast amounts of data from various sources, it can inadvertently reflect the biases present in that data. This can lead to outputs that perpetuate stereotypes or discriminatory practices

#### **Recognizing Bias:**

- Be aware of the potential for bias in AI outputs, especially when dealing with sensitive topics.
- Look for patterns in the Al's responses that may indicate bias, such as consistent gender or racial stereotypes.

#### **Mitigating Bias:**

- Include explicit instructions in your prompts to avoid biased language or perspectives.
- Manually correct biased outputs and provide feedback to the AI, if the tool allows for it.
- Engage with AI ethically, ensuring that the generated content aligns with your organization's values and standards.



- **Simplicity Works:** You don't need to write mini-essays. A few concise, clear bullet points or quick directions are often enough for GenAI to understand and act on your request.
- **Clarity Over Formality:** Your prompts don't have to be formal or perfectly structured. What's crucial is that they're understandable and provide the necessary guidance for GenAI.
- Use Components Flexibly: Initially, adding each component (Instruction, Role, Context, Format, Example) one by one can help you see their impact. However, as you become more experienced, you can streamline this process, omitting headers and not always sticking to a strict order. Often you will find you do not need all five.
- **Efficiency is Key:** The goal is to find the right balance between the effort put into prompting and the time saved by GenAI's output. With practice, you'll learn to provide just enough information to guide GenAI effectively without unnecessary detail.
- **Experiment, Adapt, and Share:** Start with the basics and then adjust based on the results. Sometimes, a few bullet points hitting the main components are all you need. If the output isn't quite right, tweak your prompt and try again. Be sure to share helpful prompt templates with colleagues doing similar work.

#### RESOURCE



- **Process Tasks Sequentially:** Break tasks into steps for clearer, more logical results.Instead of asking for a report, outline specific steps.
- **Simplify Prompt Crafting:** Ask GenAI directly what information it needs. This clarifies requirements and streamlines interaction.
- **Engage in Dialogue:** Refine outputs through back-and-forth interaction. Fine-tune responses without restarting.
- **Divide Complex Tasks:** Break down tasks into stages: brainstorming, outlining, drafting, editing. Guide GenAI through each stage for higher quality output.
- **Understand Context Limits:** Be aware of document size and prompt length restrictions. These limits affect the breadth and accuracy of responses.





ChatGPT - https://chat.openai.com/

Microsoft Co-Pilot - https://www.microsoft.com/en-us/microsoft-copilot

Google Gemini - <u>https://gemini.google.com/app</u>

Anthropic Claude - <u>https://claude.ai/</u>

Meta Llama AI - <u>https://llama.meta.com/</u>