

# WHITE PAPER

APPLICATIONS SOFTWARE TECHNOLOGY LLC

## Generative AI in the Public Sector: Pros and Cons to Consider

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July 2023



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# 1 INTRODUCTION

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Generative AI (GenAI) is a type of Artificial Intelligence that can create a wide variety of data, such as images, videos, audio, text, and 3D models. It does this by learning patterns from existing data, then using this knowledge to generate new and unique outputs. GenAI is capable of producing highly realistic and complex content that mimics human creativity, making it a valuable tool for many industries. Even before the creation of ChatGPT or Google's Bard, we have been using artificial intelligence for years in the form of smart devices that can answer questions, apps that predict traffic patterns and search algorithms, and social media apps that make content suggestions.

GenAI, with its ability to produce complex content that mimics human creativity, is a powerful tool that can be used to improve the efficiency and effectiveness of state and local governments. However, there are also some potential risks associated with its use.

## 2 ADVANTAGES OF GENAI IN GOVERNMENT

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Let's discuss a couple of the pros of using GenAI in state and local governments:

- Improved efficiency and effectiveness
- Improved decision-making

### Improved Efficiency and Effectiveness

GenAI can be used to automate tasks, identify patterns and trends, and generate content. This can free up government employees to focus on more strategic and value-added activities. Government organizations are facing a shortage in the workforce, and if GenAI can give time back to the remaining employees, this will lead to better outcomes for all involved. Some examples of how GenAI is being used include developing the initial draft of education course curriculums and/or drafting teaching exercises based on existing curriculums. We are also seeing GenAI being used to generate computer code based on natural language prompts. A final example includes using chatbots to provide answers to frequent

questions, reducing the number of human-answered calls and lower total costs associated with contact centers.

## Improved Decision-Making

GenAI can be used to analyze large datasets and identify insights that would be difficult or impossible to find using traditional methods. This can help governments make better decisions about policy, budgeting, and resource allocation. Governments have large data sets that are currently unwieldy and do not always add value to future decisions because they are too large for any individual employee to consume, digest, and make sense of.

Using this data to train GenAI would make the data highly valuable. An example of better decision-making with GenAI may include improving the budgeting process by more optimally dispersing funds based on historical spending or increasing fraud detection and prevention by allowing GenAI to analyze beneficiary data and payment patterns.

## 3 RISKS OF GENAI IN GOVERNMENT

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Risks associated with using GenAI in state and local governments include:

- Data Privacy and Security Risks
- Bias and Discrimination Risks
- Cost and Complexity

### Data Privacy and Security Risks

Governments have large data sets that they have been maintaining for years. As a result, these governments need to address concerns related to data privacy and security when approaching the use of GenAI.

Governments need to carefully consider how they will collect, store, and use data when leveraging GenAI. Because of this concern, the [State of Maine](#) placed a 6-month moratorium on the

use of GenAI while they develop policies and procedures and review frameworks.

## Bias and Discrimination Risks

GenAI models are trained on large datasets of human-generated data. This means that they can be susceptible to the same biases and discrimination that exist in the real world. Governments need to take steps to mitigate these risks, such as using diverse datasets and bias-detection tools.

## Cost and Complexity

GenAI is a costly and complex technology to implement. Government organizations need to carefully consider the cost and benefits of implementing GenAI. Instead of building their own GenAI tools, government organizations should strongly consider working with the myriad technological tools available (more in section 4).

## 4 QUESTIONS TO CONSIDER

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There are some key questions everyone should consider before using AI tools:

- What are the specific goals of using GenAI?
- What is the acceptable use of GenAI to perform certain tasks?
- What data should and should not be entered into GenAI tools?
- What data will be used to train and operate the GenAI models?
- How will the GenAI models be used to make decisions?
- How will the GenAI models be monitored and evaluated?
- What are the potential risks of using GenAI, such as data privacy, bias, and discrimination? How will these risks be mitigated?

- Will the GenAI model be built internally, or will 3<sup>rd</sup> party tools be leveraged?

## Embracing 3rd Party Tools

As government entities begin to more widely leverage GenAI, they should strongly consider working with 3<sup>rd</sup> party tools.

Governments have tremendous amounts of data that can be used to pre-train the GenAI tool, but they do not have tremendous experience with the technology that is driving GenAI. There will be limited GenAI talent available and most, if not all, will go to the private sector where salaries will be higher.

Governments will not be able to compete with this initially, and even if they could, it does not make sense for 50 states to spin up their own research and development capabilities as it would only further diminish the available resources. Rather, it is recommended that governments continue to serve as data stewards, address the questions above related to goals, bias, etc. while working with specialists to get the most out of GenAI. This will allow government entities to focus on improving their services and achieving their missions.

One GenAI tool that [AST](#) is exploring is [Salesforce's Einstein GPT](#) which was released on March 7, 2023. With many public sector agencies already leveraging Salesforce for case management, grants management, public health, and more, this provides several points of entry into the GenAI space.

Salesforce is already spending time addressing responsible development of GenAI tools by producing and publishing [guidelines](#). This demonstrates the commitment Salesforce is making to developing these tools and being an industry leader. This is just one example of a commercially available tool, and while it is informative to evaluate the published guidelines from Salesforce and other companies, government leaders should also review the work the [National Institute of Standards and Technology](#) is publishing.

## 5 CONCLUSION

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Generative AI can be a powerful tool for state and local governments and needs to be further explored and developed. Forward thinking government leaders are already exploring how to take advantage of these tools and this acceptance will increase with time. It is an exciting technology that offers a lot of potential benefits, if used correctly.



## About the Author:

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*John D. Conley, Senior Director, Public Sector Transformation for AST LLC, has been supporting public sector organizations for 20 years. He was directly involved with digital transformation and modernization efforts during his time as Deputy Chief Information Officer for the state of Colorado and the Executive Director of the Colorado Statewide Internet Portal Authority. When he worked at Salesforce, he was at the forefront of many state and local governments making the transition to cloud computing and advised them on lessons learned and best practices. John has a great devotion to the missions of the agencies he works with, and he continues bringing his expertise to multiple organizations with AST.*

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