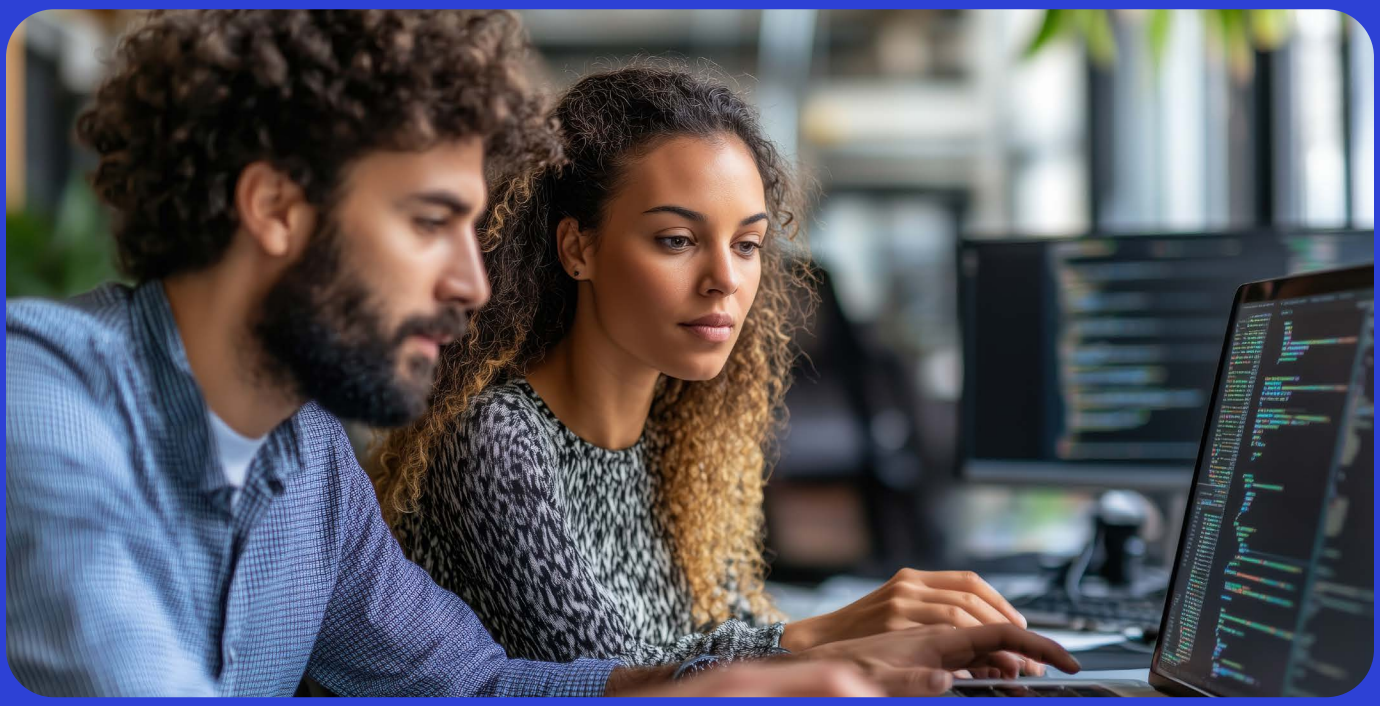
CORVEL

White Paper

Upleveling Your Data Privacy and Security Measures with Generative AI

Five Implementation Considerations & Practical Benefits



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Introduction

Generative artificial intelligence (GenAI) is driving innovation across the insurance industry. This technology has the potential to transform claims management processes, boost efficiency, streamline outdated and manual workflows, and contribute to significant cost and time savings—ultimately helping to improve the care journeys and outcomes for injured workers.

To realize the full potential of this powerful technology, organizations must adopt a strategic approach to its implementation. An effective strategy should adhere to AI's guiding principles: **data security, results reliability, flexibility, social responsibility, and continuous development**. It must also proactively address risks and concerns associated with the technology, such as **accuracy, privacy, bias, hallucinations, and transparency**. Without proper data security measures, privacy policies, and other necessary guardrails in place, GenAI risks becoming more of an organizational burden than a transformative solution.

The Evolution of AI

Over the last few years, advancements in GenAI, such as OpenAI's ChatGPT launch and subsequent iterations, have propelled a surge of interest in AI. This rapid evolution has generated both excitement and skepticism. Early concerns about the reliability of large language models (LLMs) highlighted issues with outdated or factually incorrect responses.

However, recent developments have significantly improved reliability, accuracy, and overall quality. These advancements demonstrate the potential for GenAI to drive meaningful transformation, provided organizations implement the technology thoughtfully and deliberately.

Benefits of GenAI

- Greater Efficiency
- Increased Productivity
- Reduced Operational Costs
- Reduced Administrative Burdens
- Improved Outcomes

The Five Guiding Principles

Despite the advantages that this technology brings to the forefront of workers' compensation, it is critical to remain mindful that with new opportunities also come new risks. While GenAI offers numerous advantages, it is essential to address the risks and challenges that accompany its adoption. To achieve its full potential, organizations must align implementation efforts with the following principles:

Data Security:
Protect public and private datasets by assessing people, processes, and technology.

Results Reliability:
Continuously verify and improve the accuracy of outputs.

Flexibility:
Build adaptable systems to evolve alongside technological advancements.

Social Responsibility:
Maintain human oversight to ensure ethical outcomes.

Continuous Development:
Dedicate resources to ongoing growth and improvement.

By adhering to these principles, organizations can mitigate risks and unlock the transformative potential of GenAI.

Considerations for Implementation

Powerful technology comes with risk. As with any new process, the successful implementation of GenAI requires addressing key concerns: **accuracy, privacy, bias, AI hallucinations,** and **transparency**. These considerations are critical for protecting organizational integrity and ensuring ethical outcomes.

Privacy:

A privacy concern with GenAI arises when the model inadvertently generates or reveals sensitive information from its training data.

For example, if a GenAI model has been trained on datasets that include personal communications (like emails or private messages) without proper anonymization, it could generate responses containing real names, addresses, or confidential details.

CorVel's Approach

- Provide continuous training and support to employees handling sensitive data.
- Scrub personally identifiable information from data sets.
- Review a vendor's privacy policy and adopt a Data Protection Agreement (DPA), as needed. Vendors such as Microsoft do not store customer data.

Accuracy:

An example of an accuracy concern with GenAI can be seen in situations where the model produces convincing but factually incorrect information. For instance, a language model might generate a detailed and confident-sounding recommendation based on incomplete or outdated data.

Even though the text might appear correct and professional, it could contain subtle inaccuracies or entirely incorrect advice, which could be dangerous if taken seriously by a non-expert. This issue arises because GenAI models rely on patterns in the data they've been trained on, rather than verifying facts in real-time. This risk is particularly concerning infields like healthcare, legal matters, or finance, where accuracy is essential.

CorVel's Approach

- Collaborate with domain experts to determine the right factors (we call them features).
- Utilize validated high-quality data (a large and diverse dataset that adequately represents the problem domain).
- Test the model on the data it hasn't seen.
- Continuously monitor the results and retrain the model.

Bias:

A bias concern with generative AI occurs when the model produces content that reflects or amplifies societal prejudices or stereotypes present in its training data.

For instance, if a user asks the AI to generate a story or a profile of a job candidate, and the model responds with biased assumptions based on gender or ethnicity, it can perpetuate harmful stereotypes.

CorVel's Approach

- Diverse and representative data ensures that the training data is diverse and representative of the population the AI system will serve.
- Avoid using sensitive attributes like race, gender, or religion unless absolutely necessary.
- Continuously monitor outputs for signs of bias and make iterative improvements.

AI Hallucinations:

An example of AI hallucination is when an AI language model generates information that seems plausible but is entirely fabricated or incorrect. This often stems from unclear instructions or ambiguous prompts.

CorVel's Approach

- Prioritize human oversight to review outputs.
- Use high-quality data to ensure AI is trained on a vast and diverse dataset covering a wide range of scenarios.
- Use engineering platforms that carefully craft prompts that provide clear instructions and context, as these reduce ambiguity and the likelihood of the model "making things up."

Transparency:

A transparency concern with GenAI arises when users don't understand how or why the AI arrived at a particular outcome. The "black box" nature of many AI models means that their internal decision-making processes are often not clear, which can be problematic, especially in high-stakes scenarios.

The lack of transparency about how the technology arrives at its decision creates a trust issue, as people may not be able to challenge or fully understand potentially biased or incorrect outcomes.

CorVel's Approach

- Develop and use models that can explain decision-making processes in a way that is understandable to humans.
- Identify the most important factors influencing the model's output.
- Assign a value to each feature representing its contribution to the model's output.
- Ensure the data used to train AI models is representative and unbiased. Documenting the data collection and preprocessing steps can increase trust in the models.
- Incorporate human oversight into AI systems, particularly in critical decision-making processes, to ensure that AI is used ethically and responsibly.

Practical Benefits of GenAI

The practical benefits of GenAI are vast and span across various areas. By leveraging these technologies, we can unlock new levels of **efficiency, productivity, and innovation**, ultimately leading to **improved outcomes** and **enhanced experiences**. As AI continues to advance, we can anticipate even more exciting and transformative applications to emerge in the future.

- **Improved Efficiency:** AI can automate repetitive tasks, freeing up people to focus on more strategic and creative activities, like improved communication between adjusters and injured workers.
- **Enhanced Decision Making:** AI can analyze extensive datasets and uncover insights that humans may overlook, enabling more informed and data-driven decisions.
- **Enhanced Anomaly Detection:** AI algorithms can analyze large volumes of healthcare data, including claims, medical records, and billing information, to identify patterns and anomalies that may indicate fraudulent activity.
- **Personalized Solutions:** AI can deliver tailored recommendations, content, and experiences to individual users, driving greater engagement, satisfaction, and improved outcomes.

At CorVel, data security measures are built around three core tenets of business operations: **people, processes, and technology**. To reap the practical benefits of improved decision-making and increased efficiency, it's essential to prioritize human oversight, high-quality data, and responsible data collection.

In 2023, CorVel integrated GenAI into our award-winning Care^{MC} Edge claims platform. This enhanced our CogencyIQ^{SM} service offering by equipping claims professionals with advanced analytics on claim risk scores, litigation avoidance, and severity modeling. By automating routine tasks, GenAI enables adjusters to dedicate more time to meaningful interactions with injured workers. Since integrating this technology, we have observed notable improvements in patient outcomes and accelerated return-to-work timelines.

Interested in learning more?

Scan the Code for more information about CorVel's approach to data security and our generative AI solutions.