Generative AI in financial services: Integrating your data

How to prepare and execute successful integration

WIPFLI

As the world embraces the transformative power of generative AI, financial services organizations are looking for ways to prepare their data to fully leverage the potential of this technology.

Generative AI applications, such as ChatGPT, can revolutionize various aspects of your operations, from financial analysis to customer support.

However, to unleash the true power of generative AI, organizations must navigate technical, legal, privacy and strategic challenges related to data management.

Here are the key steps that business leaders should take to optimize their data for the successful implementation of generative AI:

1. Enhancing data availability and organization
2. Identifying use cases and relevant data sources
3. Balancing data security and accessibility
4. Developing a comprehensive data strategy

By 2025, 30% of outbound messages from large organizations will be synthetically generated, up from less than 2% in 2022.

The revenue forecast for the AI market in 2030 is **$1.8 trillion**.

ChatGPT exceeded **1 million users** five days after its launch.

Enhancing data availability and organization

Improving data availability

To fully utilize generative AI, organizations need to make their data assets readily available and well organized.

This includes uncovering “dark data” — information or content that is often forgotten or stored in offline archives. By ingesting this untapped data into generative AI applications, organizations can unlock new value streams.

While not a trivial task, it is crucial to make diverse data sources — such as emails, financial statements, customer communications and policy documents — accessible for generative AI applications to identify patterns and synergies.

Enacting data governance

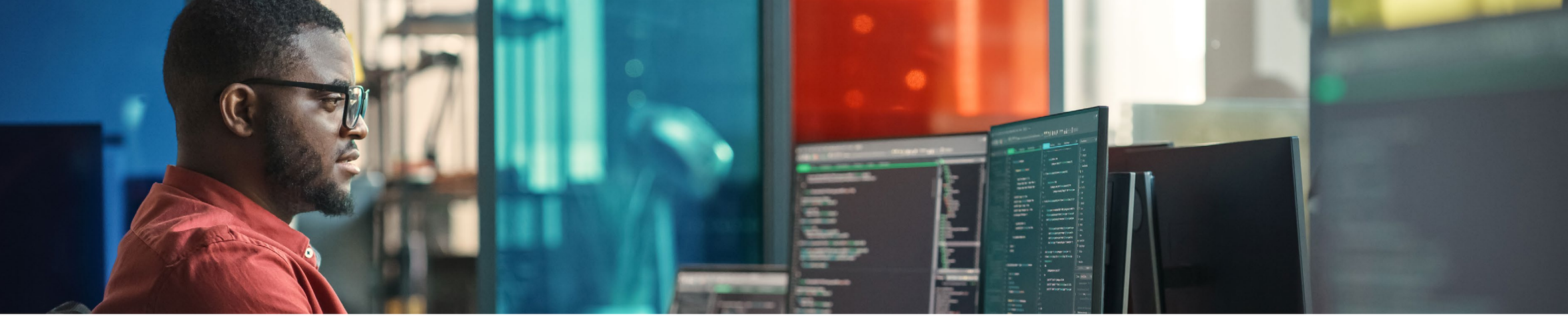
Establishing data governance is paramount for ensuring the ethical and compliant use of generative AI. Organizations must set up guardrails and controls to determine how and when different types of data can be used by AI applications. Having clear standards and polices helps mitigate privacy concerns and improve compliance with regulations like the GDPR. It can also reduce bias, as AI models tend to inherit biases from the data they are trained on. Data governance best practices also help ensure that the data that is being used by the AI models is accurate and consistent.

Ensuring data quality

The accuracy and reliability of data used in generative AI applications is critical for producing meaningful and trustworthy outputs. Data that’s incomplete or biased can result in incorrect outputs, leading to issues such as unfair lending practices or irrelevant product recommendations.

Organizations must prioritize data quality to help ensure that the data fed into these AI applications is accurate, complete, timely and consistent. By adhering to the “garbage in, garbage out” principle, you can avoid the propagation of inaccuracies and help maintain the integrity of AI-generated content.

By 2025, generative AI will account for
10% of all data produced, up from less than 1% in 2021.



Adding data annotations

Generative AI applications heavily rely on metadata to understand and interpret the underlying data.

Organizations should invest in improving their metadata game by providing appropriate data tags, labels, provenance, lineage, quality indicators and other relevant information.

This enables generative AI models to better understand the context and characteristics of the data, enhancing the accuracy and relevance of the generated content.

Curating new data sources

To explore innovative use cases of generative AI, you may need to procure new data sources you don't currently possess.

This could include social media content, web analytics, transaction data or datasets offered by data brokers and aggregators.

Establishing a dedicated department for procuring these data supplies can help organizations access the necessary data to drive generative AI applications forward.

Validating AI-generated content

As you begin to generate and collect information produced by generative AI applications, you also need to establish policies and procedures to validate the accuracy and reliability of this content.

Generative AI models have been known to produce content that may not always align with factual accuracy.

By implementing additional governance controls and monitoring mechanisms, you can help ensure that AI-generated content is appropriately tagged, reviewed and validated before use.

Identifying use cases and relevant data sources

To help use generative AI to revolutionize various business functions and processes, start identifying use cases that align with strategic objectives.

Then, use those use cases to prioritize data preparation efforts.

Here are some examples of potential use cases:

Conversational finance

AI language models, such as generative AI, can help automate and enhance customer support.

Generative AI-powered chatbots can provide customers with round-the-clock, personalized support, including answering frequently asked questions and handling simple complaints. This not only helps improve response times but also allows employees to focus on more complex cases and value-added work.

To implement this use case, you'll need access to quality customer data, call center records and product information.

Personalized content and recommendations

Generative AI can be used to deliver personalized product recommendations, advertisements and other content to enhance customer experiences.

Generative AI will revolutionize your operations but it requires data that is **accurate, updated, accessible and complete**.

An average of **79%** of leaders report a cost decrease via AI adoption.

According to the McKinsey Global Institute, generative AI could add between

$200 billion and $340 billion in value

annually across the global banking center.

By analyzing customer data, including browsing behavior, transaction history and account details, generative AI models can provide tailored customer communication. For example, generative AI chatbots can offer personalized financial advice and product recommendations. And AI algorithms can offer customized investment portfolios based on specific parameters, such as investment goals and risk tolerance.

But to be effective, you'll need to collect and integrate relevant customer data, feedback and sentiment analysis to gain insights into customer preferences and tailor content accordingly.

Fraud detection

Generative AI can play a crucial role in detecting fraudulent activities.

Traditional, rule-based detection systems struggle to keep pace with fraud patterns as they evolve and grow more sophisticated. AI can support early detection by learning from your existing data and comparing transactions in real time.

To implement this use case, organizations need access to relevant transactional data.

Financial analysis and decision-making

Generative AI can be used to identify patterns, trends and anomalies in your financial data to help enhance decision-making.

By analyzing data, including customer behaviors, credit histories and market data, AI can provide greater insight into potential risks, investment opportunities and portfolio optimization. It also provides real-time insights, empowering you to make faster, more informed decisions about your business and how you can respond to market changes.

Balancing data security and accessibility

It is crucial to strike a balance between data security and accessibility.

Encryption, access controls and regular data backups are essential for ensuring data security. Financial services organizations handle vast amounts of highly sensitive customer data. Organizations need to ensure that data privacy regulations and security protocols are being followed if that data is being used to train a generative AI model.

At the same time, data should be stored in a centralized location that facilitates easy accessibility. Cloud-based storage and data management tools can provide additional flexibility and scalability for managing data in the context of generative AI.

Understanding the legal implications of generative AI is also critical.

Organizations should be aware of the terms and conditions of AI models, such as OpenAI's ChatGPT.

Clear guidelines should be established to protect sensitive information, comply with privacy regulations and address potential ethical issues that may arise from generative AI-generated content.

Developing a comprehensive data strategy

To fully capitalize on the potential of generative AI, organizations must develop a comprehensive data strategy that goes beyond traditional data management practices.

Here are some key considerations:

Clear objectives and use cases

Identify clear objectives, goals and use cases for leveraging generative AI in line with business priorities. Determine how generative AI can drive cost savings, improve customer experiences, enhance decision-making and explore new revenue streams.

Relevant data collection and integration

Be sure that the organization is collecting and making available the right type of data for generative AI applications. This may involve integrating existing databases, leveraging APIs and exploring new data sources to align with the specific use cases identified.

Infrastructure readiness

Assess the organization's existing infrastructure and technology systems to help ensure they can support generative AI initiatives. This may require updates to databases, APIs and other IT infrastructure components to facilitate seamless integration with generative AI applications.

Traditional data management practices aren't good enough in the AI world. Financial services organizations need a **comprehensive AI data management strategy**.

By 2024,

60% of data used

for the development of AI and analytics projects will be synthetically generated.

Skill development

Invest in upskilling employees to leverage generative AI effectively.

Identify the necessary skills and competencies required to work with generative AI and provide training and development opportunities to equip employees with the required knowledge.

Measurement and evaluation

Define relevant metrics and key performance indicators to measure the success and impact of generative AI initiatives. This could include metrics related to:

- Customer retention and wallet share
- Cost savings
- Risk management
- Customer satisfaction
- New revenue streams

Regularly evaluate the performance of generative AI applications and adjust strategies accordingly.

Generative AI is a game-changer that has the potential to revolutionize financial services.

By preparing and optimizing data for generative AI, organizations can unlock new opportunities for innovation, productivity gains and revenue growth. As leaders embark on this transformative journey, it is crucial to address the technical, legal, privacy and strategic challenges associated with data management. By following these steps and developing a comprehensive data strategy, organizations can position themselves for success in the generative AI era.

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