

# The Art of Practical AI

Transforming Customer Experiences



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## Unlocking the potential of AI

With AI transformation impacting nearly every industry, organizations are experiencing increased pressure to meet customer expectations while remaining competitive.

AI's potential is vast, but how can organizations use it to drive business impact? How can they effectively scale and operationalize AI to realize tangible, meaningful outcomes?

AI technologies are already revolutionizing how businesses engage with customers to unlock innovation and enhance experiences. From chatbots that offer immediate support to personalized recommendations that help customers feel understood, AI is enabling more impactful and efficient interactions.

New capabilities and workflows are only one part of the equation. As the implications of security breaches continue to escalate, AI can be a powerful ally in reducing risk for both your organization and your customers. AI-powered solutions synthesize data from multiple sources into clear, actionable insights, helping you simplify incident responses, triage signals faster, and surface threats earlier. With AI's assistance, your security teams gain greater visibility over their environments, learn from existing intelligence, correlate threat activities, and make more informed, effective decisions.

For example, Microsoft Azure AI offers industry-leading machine learning operations (MLOps) that streamline the machine learning lifecycle from building models to deployment and management. MLOps principles ensure robust AI operationalization at scale, enhancing security and compliance.

According to McKinsey, AI's potential is unfolding into concrete improvements for the customer experience.

# 14%

increase per hour in customer service issue resolution.<sup>1</sup>

# 25%

reduction of manager escalations.<sup>1</sup>

# 40%

productivity increase from applying generative AI to customer care functions.<sup>1</sup>



## AI offers significant opportunities to enhance customer engagement:

- Empowering support agents with focused, actionable insights.
- Improving customer satisfaction through personalized and responsive interactions.
- Streamlining processes to grow revenue while reducing friction.
- Driving innovation across every facet of service at scale.

Organizations face a unique challenge: turning isolated proofs of concept into fully integrated, AI-powered solutions with the potential for significant impact.

There are substantial opportunities to transform AI's possibilities into innovation and new experiences for customers. But first, you need a strategy that aligns with your organization's unique characteristics and meets your customers' specific needs. You may be just starting out, in the planning stage, actively implementing projects, scaling AI across the business, or realizing measurable value at scale. Wherever you are on your AI journey, there are pathways to capturing the capabilities and benefits that drive impact and differentiate your organization.





This e-book shares real-world stories of Microsoft customers that are putting new AI capabilities to work. These organizations have successfully tackled barriers to AI, including integration complexities and data quality challenges. By executing holistic strategies that encompass data, applications, AI tools, infrastructure, and security, companies are discovering new and creative ways to generate value.

Once you explore these scenarios, you can access practical, step-by-step readiness and implementation guidance. With the right foundations in place, your organization will be ready to use AI to unlock innovation, empower your people, and ultimately deliver the customer engagement that drives business success.

For instance, Azure AI's purpose-built infrastructure supports complex deep learning workloads, making AI more accessible to organizations of all sizes. This infrastructure optimizes everything from large language models to training and inference to ensure speed and reliability at scale.

AI isn't just a futuristic concept. It's a practical tool that can drive significant improvements in customer engagement and security. By taking advantage of Azure AI's advanced capabilities, organizations can transform its potential into practical impact, scale effectively, and realize tangible, meaningful outcomes.



# \$1.76 million

The average savings for organizations that use security AI and automation extensively compared with those that don't.<sup>2</sup>

By enacting Trustworthy AI principles, you can protect your organization, your employees, and your customers while capturing better business outcomes and contributing to a safer digital ecosystem.

[Learn more about Microsoft's approach to Trustworthy AI](#)

## Cultivating human potential through Trustworthy AI

AI readiness is about more than just technology. It also encompasses a new mindset around using these tools responsibly and ensuring trust for both internal stakeholders and external customers. Before your employees commit to AI, they need to feel secure. You can build that confidence by incorporating Trustworthy AI principles into your implementation strategy, ensuring safety and motivation throughout the entire journey.

**Consider the following principles as you implement Trustworthy AI:**

- 1 Security:** Select for technology that prioritizes security across design, default behaviors, and operations.
- 2 Safety:** Choose AI systems that are built, tested, and monitored to avoid undesirable behaviors, including harmful content, bias, misuse, and other unintended risks.
- 3 Privacy:** Ensure the technology you implement provides safeguards and compliance for customer and organizational data through user controls, transparency, and legal and regulatory protections.

As AI advances, leaders have a critical role to play in making a positive impact on organizations and communities around the world. Trustworthy AI both ensures a more secure future for everyone and drives tangible business benefits by minimizing the damage and cost of security incidents.



In this section, we'll explore three areas where AI improves engagement and spurs innovation:

- Transforming the experience
- Personalizing through AI
- Empowering your workforce

## Opportunities for engagement and innovation with AI

Customer expectations are evolving, and AI can create new opportunities to enhance engagement. Whether they take the form of new experiences, content creation, or integration, AI is a multifaceted technology that can revolutionize how you capture your customers' attention and secure their trust.

# Transforming the experience

Today's customers expect prompt support and seamless service. With AI-powered solutions, businesses can exceed those expectations through innovative experiences.

Customer service is one of the most impactful uses for AI. Chatbots powered by generative AI can handle customer inquiries 24/7, providing instant responses while freeing up human agents for more complex tasks. For example, AI-driven retail solutions can deliver personalized shopping experiences for your customers, boosting satisfaction by making each interaction more relevant and responsive. In one instance, [Walmart](#) integrated OpenAI's GPT-4 into its voice order and text-to-shop features. It lets customers search for items, place orders, and schedule pickups or deliveries with human-like, interactive responses.

When you think about the experiences you want to provide for your customers, ask yourself a few key questions:

- What are the biggest pain points for your customers?
- Do AI tools integrate better into your products or the support services you offer?
- Which customer-facing tools provide the simplest opportunities for AI integration?



### Real-world use case

## Telecommunications

**Scenario:** Seeking support is a process many people find frustrating, so it's an important area of opportunity for improving the customer experience. Vodafone uses Microsoft Azure AI Studio, Microsoft Azure OpenAI Service, and Microsoft 365 Copilot along with Microsoft Azure AI Search to power a digital customer support assistant called TOBi. This tool provides customers with information in a natural, conversational tone before passing them to an agent.

By offering faster inquiry resolution, Vodafone has boosted customer satisfaction and expanded into new markets while keeping development costs low. Powering TOBi with generative AI resulted in a 20% net promoter score increase, while first-time resolution has grown from 70% to 90%.<sup>3</sup>

[Read the story](#)

## The benefits of personalized and timely customer interactions



Gaining a competitive edge by simplifying discoverability and accelerating resolution.



Understanding natural language and user intent.



Anticipating customer needs based on past behaviors and aggregate data.



Minimizing the need for human customer service and support workers.



Increasing accessibility to break down language and ability barriers.



Building a reputation as an industry innovator.





“With Azure OpenAI Service, we are able to drive groundbreaking customer experiences that simplify the tax filing process while also instilling confidence and promoting customer trust.”

## Aditya Thadani

Vice President of Artificial Intelligence Platforms, H&R Block

### AI in action H&R Block

To optimize the experience for its online tax filers, H&R Block developed the AI Tax Assist tool using Azure AI, including Azure OpenAI Service and Azure AI Document Intelligence. This generative AI-powered solution combines nearly 70 years of trusted tax expertise with cutting-edge AI technology to provide real-time, reliable assistance for customers. By taking advantage of Azure’s capabilities, H&R Block has streamlined the tax filing process, offering a seamless and engaging experience while maintaining robust security and compliance.

The AI Tax Assist tool addresses a critical business challenge: simplifying tax preparation while ensuring accuracy and confidence for users. It provides instant answers to tax-related questions, reduces the time required to file, and alleviates common concerns about accuracy and deductions. Since its launch in December 2023, the tool has received positive customer feedback and seen increased adoption throughout the 2024 tax season, helping millions of users file their taxes with ease.

[Read the story](#)

## Technical considerations for AI-powered assistance

- **AI model catalogs:** Centralize and customize models to suit different use cases.
- **Information retrieval:** Enhance the accuracy and relevance of AI-driven customer interactions through advanced information retrieval capabilities.
- **Content safety:** Monitor and customize content to mitigate risks, build trust, and ensure compliance with standards.
- **Lifecycle management:** Continuously optimize and update AI models for better performance and adaptability to evolving customer needs.



“We’re transforming our customer experience by using data modernization and advanced data science models, allowing us to understand our customers better and provide the best recommendations and interactions. It’s truly changing the way we interact with our customers every single time they engage with our brands.”

## Lauren Morr

Senior Vice President, Digital Engineering, Abercrombie & Fitch Co.

### AI in action

## Abercrombie & Fitch Co.

At Abercrombie & Fitch Co., fragmented infrastructure systems were limiting the ability to initiate customer innovation strategies and more personalized digital journeys. The global retailer decided to move from its traditional tech infrastructure and modernize its data estate by migrating to the cloud.

Now, a unified technology ecosystem delivers greater visibility and velocity. Microsoft Power BI spreads intelligence across the business, while Snowflake serves as the reporting layer for building and aggregating everything it needs for performance. To help the data science teams build models, Databricks provides the AI and machine learning engine. Finally, the team uses Microsoft Azure Kubernetes Service (AKS) for application migration and deployment.

By migrating its tech platform to the cloud, Abercrombie & Fitch can offer customers more immediate and personalized omnichannel experiences and pave the way for future AI innovations. As a result, the company is reducing the time required for infrastructure provisioning and increasing its deployment frequency.

[Read the story](#)

# Personalizing through AI

Attention is both scarce and valuable, so personalized content is crucial for engaging customers and driving loyalty. In today's competitive landscape, AI empowers businesses to create more meaningful interactions. Organizations can use this technology for targeted marketing emails, customized product recommendations, and dynamic website content that adapts to each user's preferences.

For example, generative AI can automate high-quality content creation, saving time and resources while delivering consistency and relevancy. [In Holland America Line's case](#), the cruise operator developed a virtual agent using Microsoft Copilot Studio that acts as a digital concierge on their website to support new and existing customers and travel advisors. [For Heritage Grocers Group](#), a solution built using Microsoft Fabric provides deeper analytics, cost-efficient data processing, and AI-powered insights to understand customer preferences and drive product assortment by location.



Consider ways to make your content more personal for your customers. Asking these questions will help guide your strategy:

- Are your customers more interested in seeking out knowledge or discovering products and services?
- What kinds of data will help AI tools zero in on customer personalization preferences?
- What content categories drive the biggest impacts for your business, and how can you attune those to customer needs more effectively?

## Real-world use case

### Retail

**Scenario:** When Canadian Tire Corporation recognized that up to 80% of tire purchases start with a visit to a retailer's website, it built a conversational commerce app using OpenAI Service and OpenAI's GPT-4. The CeeTee app helps customers identify the right tires for their needs early in the shopping journey, multiplying opportunities for conversion and boosting brand loyalty. In addition to increasing employee productivity, implementing AI has led to significant improvements in data quality and trust.

[Read the story](#)

## Real-world use case

### Architecture

**Scenario:** Leading architecture and engineering firm Sweco built a timesaving AI assistant called SwecoGPT using Azure OpenAI Service, prompt flow, and Azure AI Services. By automating document creation and analysis while enhancing search capabilities, SwecoGPT empowers consultants to deliver more personalized service to customers. This AI assistant allows Sweco employees to find critical project information quickly, create and analyze documents, and write emails, significantly boosting their productivity and accelerating their decision-making.

[Read the story](#)



## The benefits of relevant and engaging content



Helping customers feel consistently supported through always-on availability.



Tailoring responses based on user preferences to create a more individualized experience.



Minimizing human error in routine tasks to improve accuracy.



Handling high call volumes without overloading customer service teams.



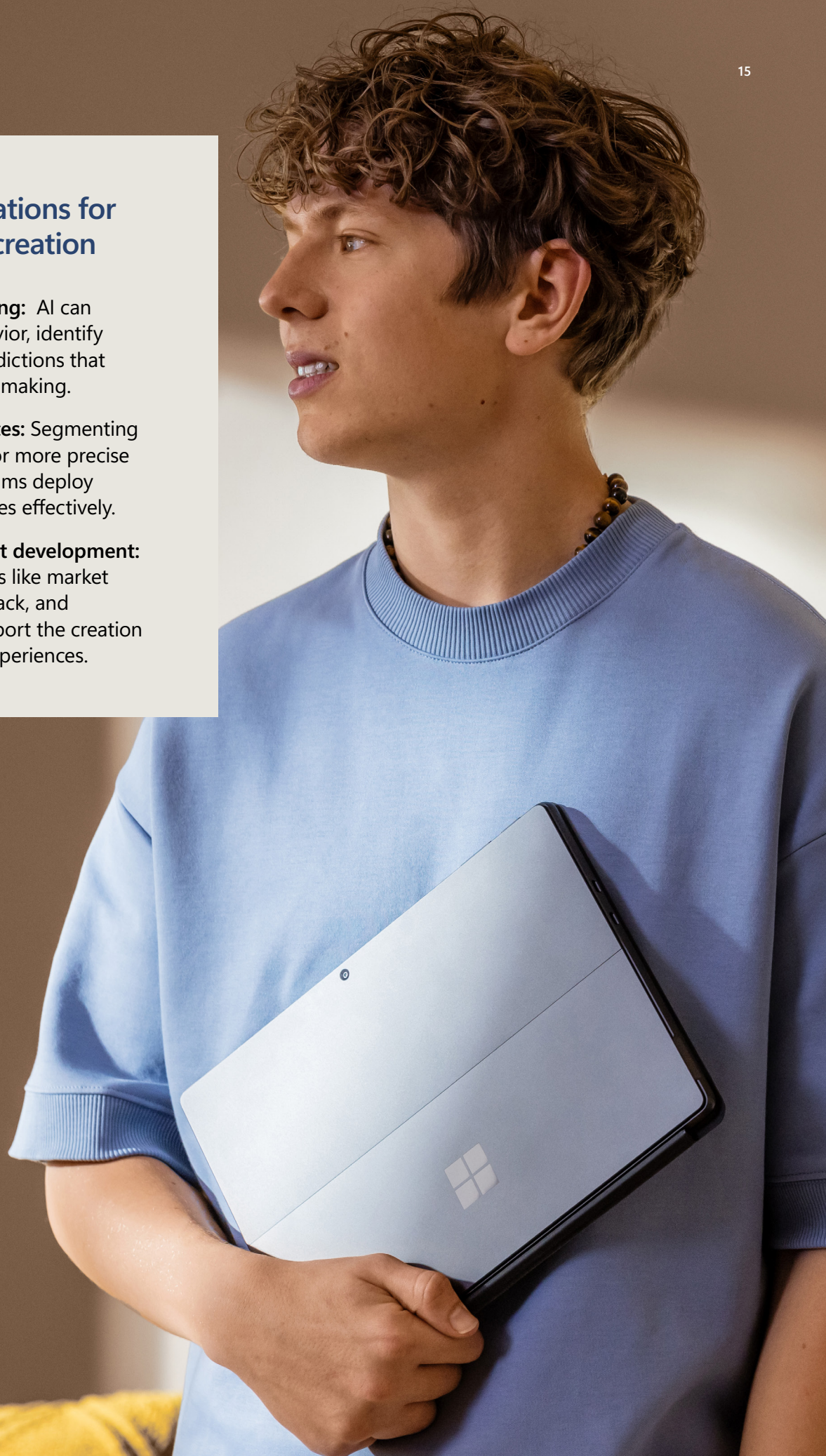
Increasing conversion by identifying and recommending products and services more accurately.



Gathering insights from user interactions to further improve and personalize services.

## Technical considerations for AI-driven content creation

- **Smarter decision-making:** AI can analyze customer behavior, identify patterns, and make predictions that drive effective decision-making.
- **Personalized experiences:** Segmenting user behaviors allows for more precise targeting, helping IT teams deploy personalization strategies effectively.
- **Innovation and product development:** AI helps capture insights like market trends, customer feedback, and competitor data to support the creation of new products and experiences.





“When I heard about generative AI, I thought, ‘This is a way to help create a balance, to let people know about not just the iconic places, but the other places Rome has to offer.’”

### Antonio Preiti

CEO, Fondazione per l'Attrazione Roma & Partners

#### AI in action

### The City of Rome

Facing an influx of 35 million extra visitors in 2025, Rome needed a way to connect tourists with both popular and lesser-known attractions while managing congestion. By partnering with Microsoft, NTT DATA, and Intellera, Rome developed Julia, a virtual tour guide powered by Azure OpenAI Service using GPT-4o.

Julia helps tourists discover hidden treasures beyond the most well-known—and busiest—attractions, enriching their experience while easing visitor traffic to popular sites. The platform enables Julia to adapt dynamically to users' interests and provide personalized recommendations in real time.

[Read the story](#)

# Empowering your workforce

By integrating AI into your CRM systems and data sources, you gain access to crucial insights on customer behavior and preferences that enable more personalized interactions and responsive service. This kind of integration can help you unlock the power of data and turn information into actionable strategies, providing a 360-degree view of every customer to support better decision-making.

For example, [Edible Arrangements](#) uses prebuilt and custom-created AI models in Microsoft Dynamics 365 Customer Insights to make predictions and compare results against its human-led decisions. Retailers like [Gardens Alive](#) transform customer service through Dynamics 365 Contact Center and Dynamics 365 Customer Service to help them answer inquiries, tailor recommendations, and streamline operations.



The following questions can help you identify areas where better integration and data-driven insights will support your business goals best:

- Where are your most significant customer knowledge gaps?
- Which data sets across various tools and modules would benefit from correlation and closer examination?
- What CRM solutions and other enterprise tools already offer AI integrations?

## Real-world use case

### Financial services

**Scenario:** During the pandemic, John Hancock's customer contact centers experienced a dramatic spike in traffic. To address this, the financial services firm implemented Microsoft Azure Bot Framework SDK, Microsoft Azure Bot Service, and Microsoft Azure Cognitive Service for Language to provide support for common issues and questions, ensuring customers received the answers they needed. This solution's primary benefit is freeing up call center representatives' capacity. With the extra time, John Hancock is even upskilling its customer service team as low-code AI developers, creating a virtuous cycle of continuous innovation and success.

[Read the story](#)

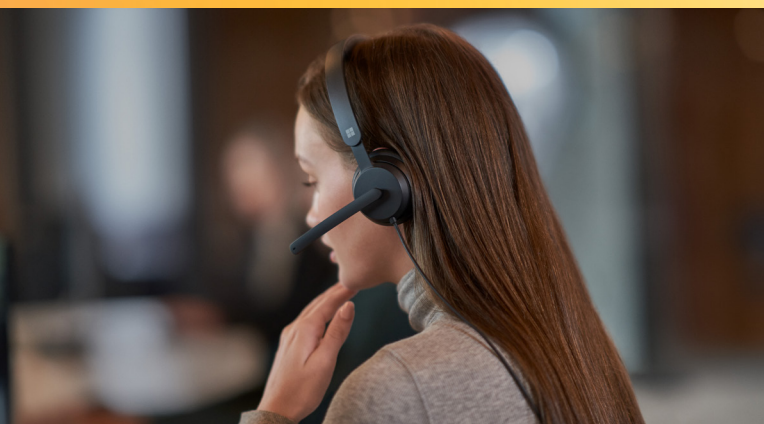
## Real-world use case

### Telecommunications

**Scenario:** To improve customer service with generative AI, Telstra optimized its Ask Telstra tool by integrating it with the company's vast internal knowledge base, putting helpful data at its customer service agents' fingertips. The Ask Telstra tool combines the intelligence of Azure OpenAI Service with the precision retrieval capability of Azure AI Search to drastically increase search speed and accuracy.

A feature called One Sentence Summary surfaces a customer's recent history for the agent almost instantaneously. This feature has been highly effective, with 90% of employee users reporting time savings and increased effectiveness. The tool has also led to a 20% reduction in the need for follow-up contact with customers. Through these AI-driven tools, Telstra has significantly improved its customer service operations, enabling agents to respond more quickly and effectively to customer inquiries.

[Read the story](#)



## The benefits of deeper insights into customer behavior



Enhancing customer experiences through personalized services and quick responses for greater satisfaction.



Improving internal processes with a comprehensive view of customers for all employees to enable seamless service.



Increasing email click-through rates from targeted campaigns based on AI-driven customer data insights.



Reducing traffic for support teams, with AI handling routine tasks and freeing up resources.



Faster onboarding for new agents and easier workflow management through readily available customer information.



Immediate access to recent customer history for seamless transfers between agents and faster understanding of customer needs.



Delivering sensitive information tactfully, empowering agents to handle challenging situations with care.

## Technical considerations for integrating AI into CRM systems

- **Data access and processing capacity:** AI requires more compute and GPU resources than traditional workloads. Ensure your infrastructure can support the demands of your AI initiatives.
- **Scalable agility:** AI automatically adjusts your infrastructure and platform to meet evolving demands.
- **Performance and cost optimization:** Integrate infrastructure, data, applications, and AI to streamline development and deployment, improving resource efficiency and maximizing ROI.
- **Foundational architecture:** Migrate to the cloud to create a solid foundation for agility and innovation.





“As widespread adoption of generative AI began in early 2023, we were already thinking about the best way to use the technology to support our teammates and our business. We believe magic happens at the intersection of business impact, customer experience, and the right technology”

## Sathish Muthukrishnan

Chief Information, Data, and  
Digital Officer, Ally Financial

### AI in action

## Ally Financial

For customer service associates, reducing manual tasks frees up time to focus on customer engagement. To fulfill this need, Ally Financial used Azure and Azure OpenAI Service to automate note-taking after customer service calls. Using conversational AI, Ally was able to generate call summaries with over 85% accuracy, reducing post-call workload by 30%. The goal is to cut manual efforts by an additional 50%.<sup>5</sup>

Ally empowered its customer service associates to dedicate more time to customers while ensuring vital data remained protected. The results demonstrated improved employee experiences, enhanced customer engagement, and better overall efficiency. Most importantly, Ally achieved a measurable ROI, with operational savings and increased productivity contributing to long-term cost efficiencies and customer satisfaction gains.

[Read the story](#)

# Implementing AI in your organization

Successful AI implementation begins with a strong strategic, organizational, and technical foundation. Consider these five pillars as you plan your projects:

- **Business strategy:** Define the business challenges AI will address. This process guides your model selection, success metrics, and investments. In the exploration stage, ensure your AI projects closely align with your business objectives.
- **Technology and data strategy:** Data powers AI, but infrastructure drives it forward. Scaling beyond proof of concept requires robust cloud infrastructure optimized for running AI models at scale.
- **AI strategy and experience:** Implementing AI goes beyond understanding different models. It requires a repeatable process for AI development and a diverse team of people to support your projects.
- **Organization and culture:** Sponsorship from senior leadership is crucial. Leaders need to communicate their vision and commitment actively, fostering an organizational culture ready for AI adoption.
- **AI governance:** Implementing processes, controls, and accountability structures to govern AI at scale is critical to reducing risk and maintaining trust. Effective governance fosters security, data privacy, and the responsible development and deployment of AI.

Once you've considered each of these pillars, you can begin your implementation process.

## Three steps for implementation:

- 1 Identify relevant data sources**  
These may include internal data like sales and customer information and external data like market trends and conditions.
- 2 Choose the right AI tools**  
When selecting AI tools, consider scalability, ease of use, and compatibility with existing systems to streamline integration and enhance efficiency.
- 3 Integrate AI into business processes**  
To ensure actionable insights, integrate AI into processes across the entire lifecycle. From employee training to continuous monitoring and optimization, this step lays the foundation for sustained impact.

# Identifying the right AI models for innovation and customer engagement

We're committed to helping customers build production-ready AI applications quickly while maintaining the highest levels of safety and security.

Confidently navigate the thousands of models available in [the Azure AI model catalog](#) and innovate faster by selecting the best options for your organization's use cases.

Here are some key considerations to help you choose the right AI model:

- **Define your business objectives**

Start by clearly defining the specific business problems you aim to solve with AI. Whether it's improving customer service, optimizing supply chain operations, or enhancing decision-making processes, having a clear understanding of your objectives will help you select the most suitable AI model.

- **Understand the types of AI models**

Different AI models address different problems. Here are some common types of models and their applications:

- 1 Supervised learning:** Used for tasks involving labeled data. Examples include classification for tasks like spam detection and regression for capabilities including sales forecasting.

- 2 Unsupervised learning:** Used for tasks featuring unlabeled data. Examples include clustering for customer segmentation and anomaly detection to enable fraud detection.

- 3 Reinforcement learning:** Used for tasks where an agent learns to make decisions by interacting with an environment. Use cases include recommendation systems and automated trading.

- 4 Natural language processing (NLP):** Used for tasks involving human language. Examples include sentiment analysis, chatbots, and language translation.

- **Evaluate data availability and quality**

The success of an AI model depends heavily on the quality and quantity of data available. Ensure you have access to relevant and high-quality data to train the model. Consider data preprocessing procedures like cleaning, normalization, and augmentation to improve data quality.

- **Consider model complexity and interpretability**

While complex models like deep learning can achieve high accuracy, they might also be difficult to interpret. Consider the trade-off between model complexity and interpretability. For some business applications, simpler models that are easier to understand and explain may be more suitable.

- **Assess scalability and performance**

Evaluate the AI model's requirements. Ensure it can handle the volume of data and the computational resources available. Consider using cloud-based AI services to scale your solutions efficiently.

- **Incorporate domain expertise**

Collaborate with subject matter experts who understand the nuances of your business domain. Their insights can help you choose the most relevant features and improve model performance.

- **Test and validate the model**

Before deploying the AI model, use techniques like cross-validation, A/B testing, and performance metrics, for example, accuracy, precision, and recall. These will help you thoroughly evaluate the model's efficacy. Continuously monitor and update the model to ensure it remains accurate and relevant.

- **Ensure ethical and responsible AI use**

Consider the ethical implications of using AI in your business. Ensure the model you use has been designed and deployed responsibly, with considerations for fairness, transparency, and accountability. Implement safeguards to prevent bias and ensure data privacy.

By following these guidelines, you can identify the AI model that supports your business objectives by unlocking innovation and new opportunities for customer engagement. Remember that selecting the right AI model is an iterative process that requires continuous evaluation and improvement.



Using [Azure AI Foundry](#), find the ideal model for your business needs, then tinker, tweak, and customize it within a project to achieve your goals. To support your implementation, the catalog includes detailed specifications from the publisher and resources to help deploy the model.

## Reimagine customer engagement with Microsoft

Microsoft tools are already helping businesses drive better customer engagement through AI:

# 253%

ROI over 3 years.<sup>6</sup>

# 94%

customer satisfaction when using Microsoft Unified.<sup>6</sup>

# 67%

reduction in critical downtime events.<sup>6</sup>

# Uncovering AI's possibilities for your organization

AI is reshaping how businesses provide services and engage with customers by creating new experiences, enabling enhanced personalization, and streamlining core workflows. By embracing AI today, you can differentiate your business, offering real value and meaningful experiences for your customers. This technology also creates opportunities to empower your employees with more efficient workflows and data-driven decision-making.

The future of customer engagement hinges on innovation, with AI tools laying the groundwork for experiences that are more personalized, intuitive, and attuned to individual needs. Through strategically deployed AI-powered experiences, you won't just meet customer expectations—you'll exceed them.

Microsoft solutions can help you turn innovation into meaningful impact. By refining your vision and strategically building your approach, you can unlock AI's potential and transform it into tangible value. With the insights shared in this e-book, you're now better positioned to explore the next steps in adopting and implementing AI.

The tools are within reach. The time is now. Start your journey into the next generation of innovative customer experiences today.



# Take the next steps on your AI transformation journey

No matter where your organization is on its AI journey, these resources can help you implement this technology to capture deeper insights and drive greater business value.

<sup>1</sup>McKinsey&Company, [The economic potential of generative AI](#), 2023.

<sup>2</sup>IBM, [Cost of a Data Breach Report](#), 2024.

<sup>3</sup>Microsoft, [Vodafone amplifies call center innovation, customer service, and employee inclusion with Azure AI](#), 2024.

<sup>4</sup>Microsoft, [Telstra dials in elevated customer service with Azure OpenAI Service](#), 2024.

<sup>5</sup>Microsoft, [Ally Financial empowers customer service associates to focus on human engagement by using Azure OpenAI Service](#), 2023.

<sup>6</sup>Forrester, [The Total Economic Impact™ of Microsoft Unified Support](#), 2022.



## Step 1

### Take an AI Readiness assessment

Answer a few simple questions to assess your readiness for extracting meaningful business value from AI.

→ [Take the assessment](#)

## Step 2

### Read Microsoft AI blogs

Stay up to date on the latest advancements in artificial intelligence and their integration into Microsoft products and platforms.

→ [Read blogs](#)

## Step 3

### Discover Microsoft AI solutions

Find out how Microsoft is empowering the world to achieve more with AI and discover the technology driving transformation.

→ [Explore solutions](#)

## Step 4

### Explore training on Microsoft Learn

Learn how to plan, strategize, and scale AI projects in your organization.

→ [Build your skills](#)