twilio

A quantum leap in customer support: Bringing together customer data, AI, and contact centers

Table of
Contents

Introduction

Artificial intelligence (AI) powered tools have transformed the way businesses serve their customers, allowing them to handle higher call volume with fewer agents and to empower self-service when appropriate. This exciting technology automates routine tasks, such as answering basic queries and scheduling appointments, freeing up human agents to focus on complex issues that require human interaction and empathy. Of course, it also allows businesses to provide quick and accurate information to their customers 24/7 – while still delivering the seamless personalized service modern consumers demand.

Despite the immense potential of AI, many organizations aren't quite ready to take advantage of its benefits. One report found that **almost half (49%) of CEOs** said their organization is unprepared to adopt AI and machine learning because they lack some or all the tools, skills, and knowledge necessary to embrace these technologies. Unfortunately, these businesses risk getting left behind by their peers and delivering subpar user experiences that push customers to take their business elsewhere.

Soon, AI will transition from being a nice-to-have feature in contact centers to an essential component.

To help your organization build a contact center with AI-powered voice experiences, we're put together a brief guide of benefits, tactical considerations, best practices, examples, and more. Let's dive into the intricate relationship between voice, contact centers, and AI to explore how these elements converge to create a remarkable customer experience!

3

Benefits of using AI-powered voice and contact centers

AI can empower your agents to provide better, more personalized service, but that's not all. Here's a brief look at how integrating artificial intelligence into your voice and contact center strategies can create better business outcomes for your organization:

1. Giving agents access to real-time data

Historically, contact centers have equipped their agents with customer relationship management (CRM) data, showing them static fields like phone number and email address that don't offer much in the way of call context and personalization. AI, on the other hand, can open doors for contact centers to collect data in real-time and deliver a more fully personalized experience for customers. Here's how:

- **Real-time customer data:** AI can instantly pull up relevant customer data, such as past interactions, purchase history, and current service issues, as soon as a call is connected. Plus, it can mindfully decide which fields to expose to virtual agents and live agents so they don't get overwhelmed by unnecessary information or force customers to repeat themselves.

- **Sentiment analysis:** AI can analyze conversations in real-time, providing agents with insights and recommendations based on the customer's tone, sentiment, and keywords used during the call, prompting them to deliver the best possible service to the customer.

It can also aid in agent coaching. For example, when a call goes south, team leads and managers can review past conversations and get an idea of what went wrong, where there might be a coaching opportunity, and what can be done to limit these types of poor experiences in the future. This can help train your employees to be better agents, able to handle any customer situation.

- **Dynamic script creation:** AI can also provide real-time scripts or prompts agents can follow to respond more effectively to customers. Using sentiment analysis here can also help ensure these scripts are tailored based on previous interactions.

5
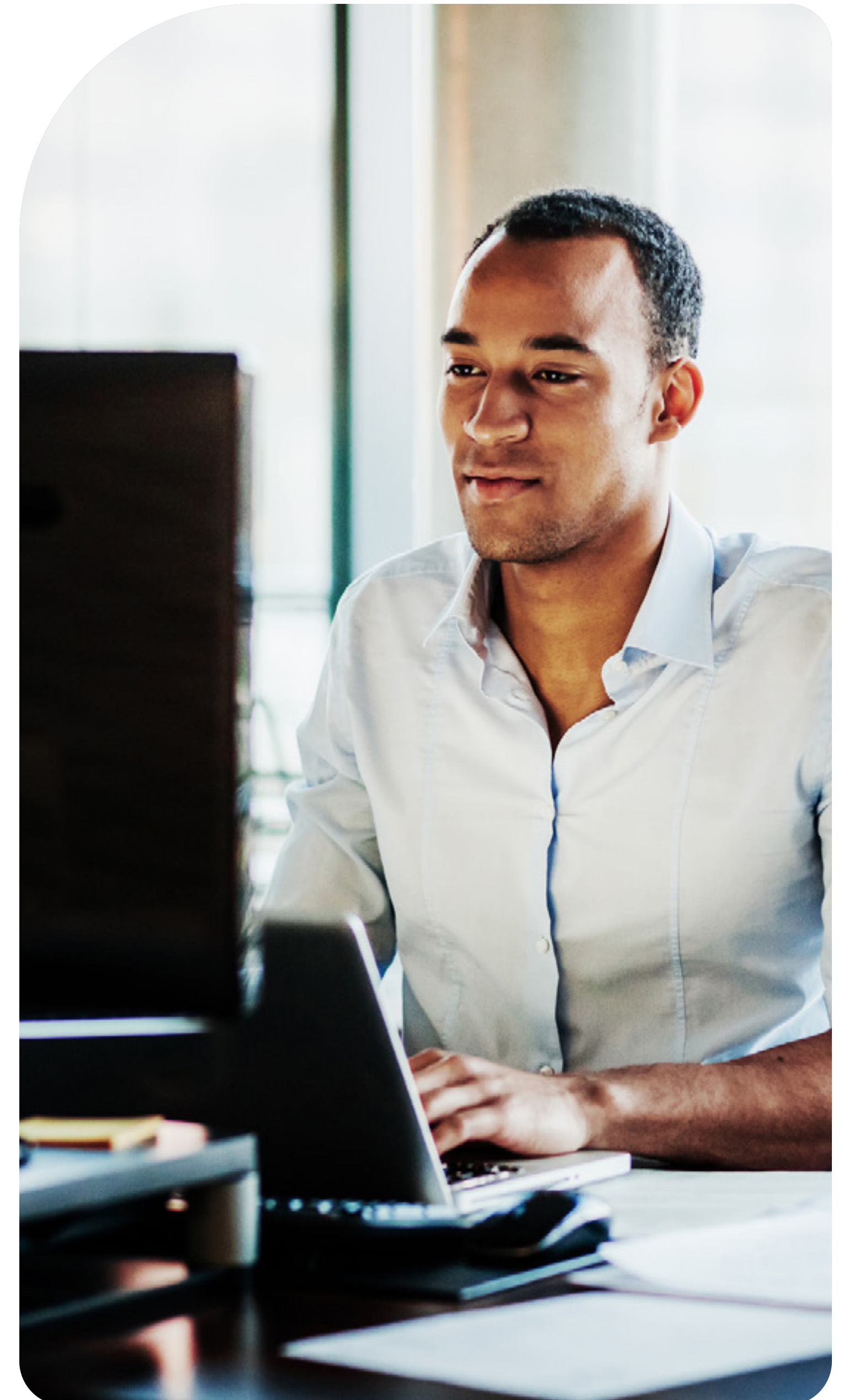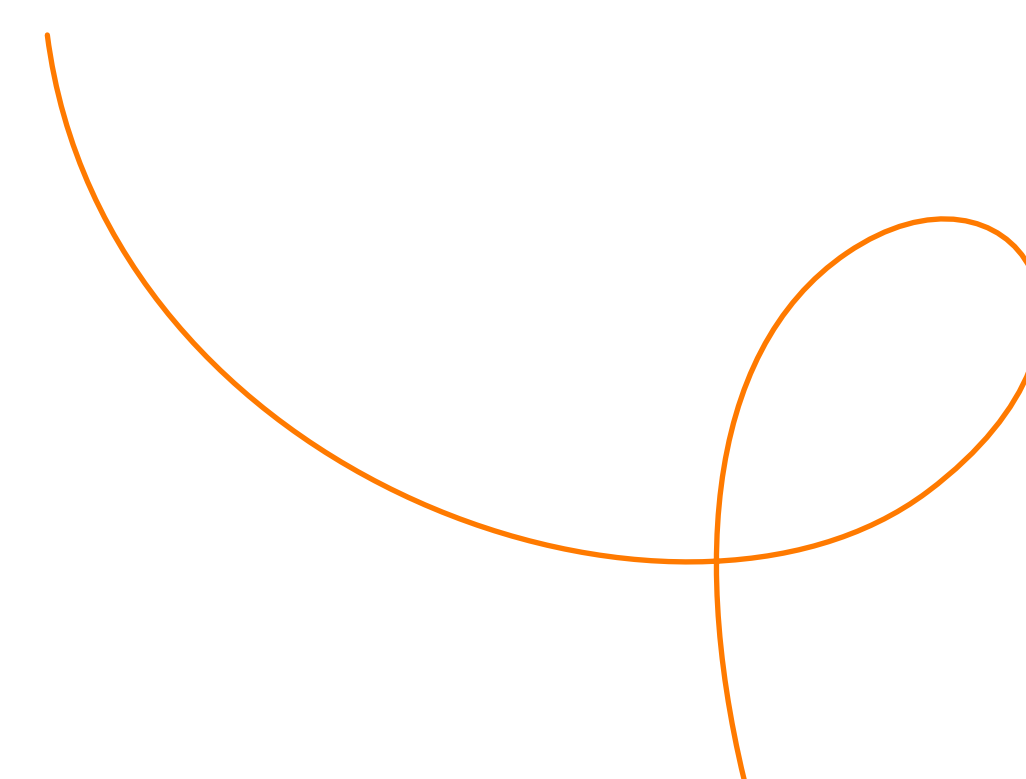
2. Increasing agent productivity

AI can assist human agents by automating time-consuming and repetitive tasks, freeing them up to focus on more complex and strategic interactions with customers. For example, AI can transcribe and summarize call logs, so agents don't have to worry about extensive note-taking, allowing them to focus on providing high-quality customer service to the next caller. These AI-generated summaries can also be used to populate CRMs and other tools to improve data integrity.

This not only improves agent productivity but also helps reduce monotonous and manual work, which can reduce the likelihood of burnout and lead to a happier and more engaged workforce.

3. Empowering agents to deliver personalized customer experiences

With comprehensive customer data at their fingertips, agents can easily customize and personalize customer experiences in several impactful ways:

- **Personalized recommendations:** By analyzing historical data and current interactions, AI can provide agents with tailored recommendations, such as suggesting relevant products or services based on the customer's preferences and past behavior.

- **Proactive solutions:** AI can anticipate customer needs and potential issues before they are mentioned, allowing agents to proactively address concerns and offer solutions. For example, AI could flag that a utility's customer is in a zip code currently affected by an outage and help the agent find when service should be back online.

- **Context-specific assistance:** AI can provide agents with context-specific information, such as FAQs, troubleshooting steps, or policy details, tailored to the customer's specific needs, so they can verify information or send follow up materials after their call ends.

Looking for a solution that can help your agents deliver personalized support? **Twilio's Unified Profiles** integrates backend enterprise systems to build real-time customer profiles. These profiles can generate predictive and inferred traits, such as churn risk and lifetime value, which can help influence routing strategies and provide agents with personalized cross-sell or upsell guidance while engaging with customers.
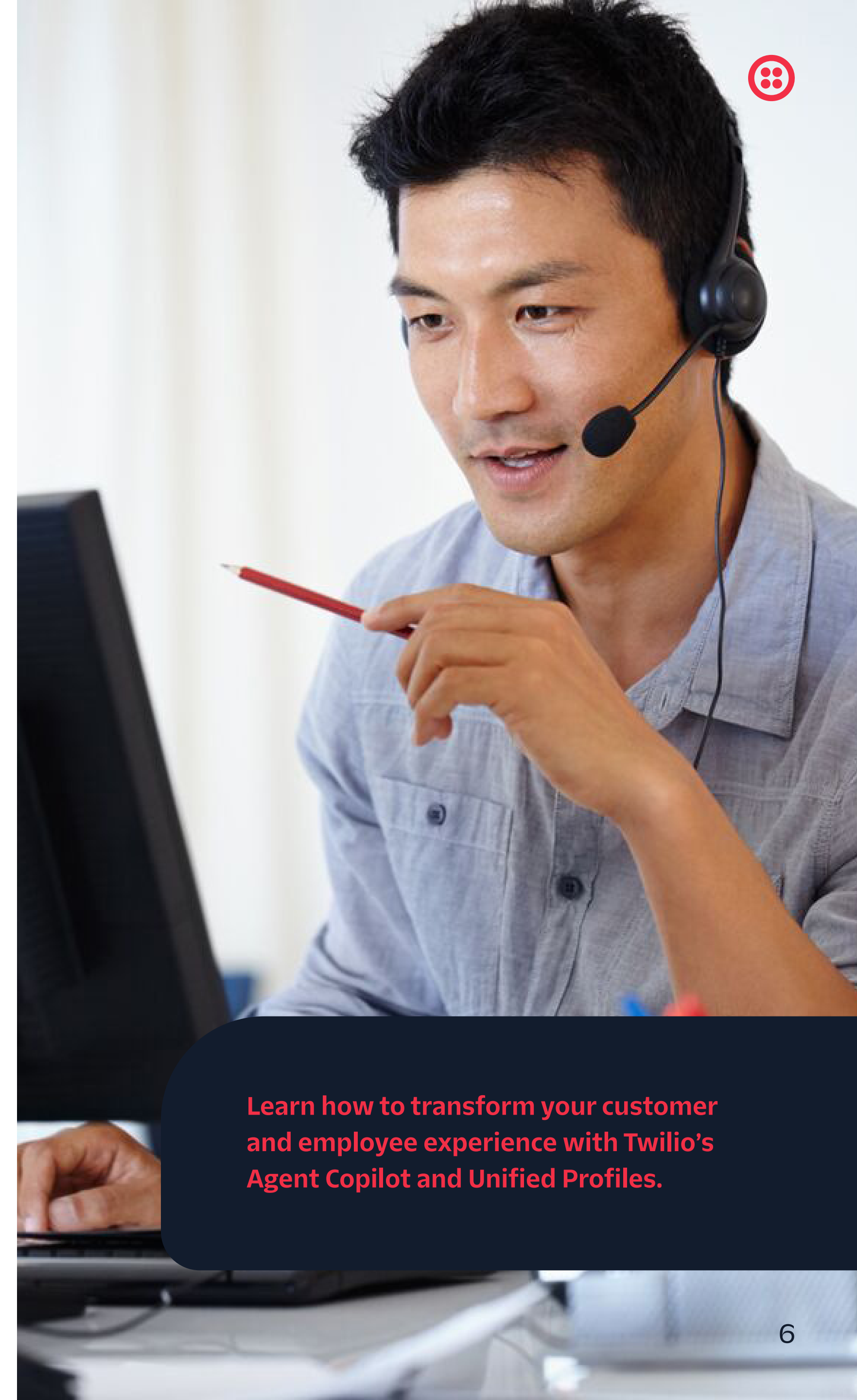
Learn how to transform your customer and employee experience with Twilio's Agent Copilot and Unified Profiles.

6

4. Enhancing call center efficiency

AI-powered analytics can provide valuable insights into call center performance, helping businesses identify areas for improvement and optimize their operations. By analyzing call data, AI can identify trends, patterns, and customer preferences, enabling businesses to make data-driven decisions and allocate resources more effectively.

5. Increasing scalability

AI-powered contact centers can easily scale to meet fluctuating demand, ensuring that businesses can provide consistent and high-quality customer service even during peak periods. Plus, certain AI tools can help reduce call volume and improve efficiency, like:

- **Intelligent call routing:** AI can analyze incoming calls and direct them to the most suitable agent based on their skills and current workload, optimizing resource allocation.

- **Task automation:** AI can automate repetitive tasks such as data entry, follow-up emails, and customer feedback collection, allowing human agents to focus on more complex interactions.

- **AI-driven virtual agents:** Self-service automation (SSA) can handle a large volume of routine inquiries simultaneously, like answering frequently asked questions, processing simple transactions, and providing basic troubleshooting, helping reduce agent call volume.

This scalability allows businesses to adapt to changing customer needs and maintain a competitive advantage. Plus, it allows organizations to handle increasing call volumes with the staff they already have, as well as be more intentional about where and when they add more skilled agents.

Overall, the integration of voice, contact centers, and AI offers a multitude of benefits that can transform the customer experience and drive business success. By leveraging the strengths of both AI and human agents, businesses can create a customer-centric environment that fosters satisfaction, loyalty, and growth.
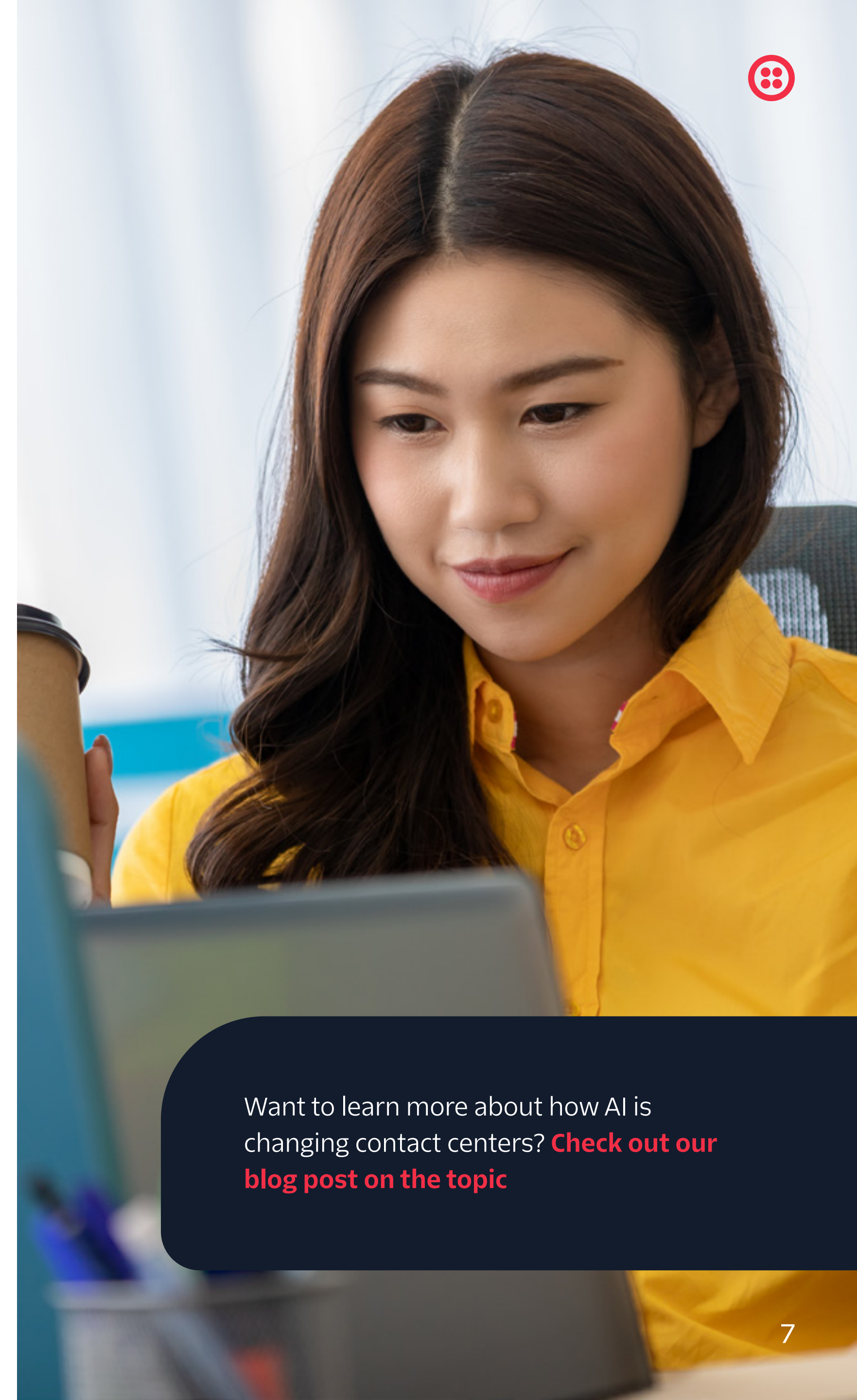
Want to learn more about how AI is changing contact centers? **Check out our blog post on the topic**

7

Chapter 03

# Finding the balance between AI and human intervention

While AI is a powerful tool for automating tasks and building smarter voice and contact center experiences, it cannot go unchecked.

Businesses must strike a delicate balance between using AI and human involvement. Rather than replacing human agents completely, AI should complement your existing contact center services.

To build a sustainable AI practice, start by asking yourself these questions:

1. **How can AI best complement and enhance the skills of our human agents to improve customer service?**

2. **What measures can we implement to ensure responsible and ethical use of AI in our contact center operations?**

3. **What are the breakpoints in our current customer journey and how can we redesign the journey to be more customer-centric? Where could AI drive meaningful and measurable improvement?**

4. **What common call flows/tasks should be automated with an SSA IVR approach?**

It goes against your business' best interest to lean too heavily on human agents or AI, so answering these two questions can help you strike the right balance and better serve your customers. We'll look at each in more depth on the page.

9
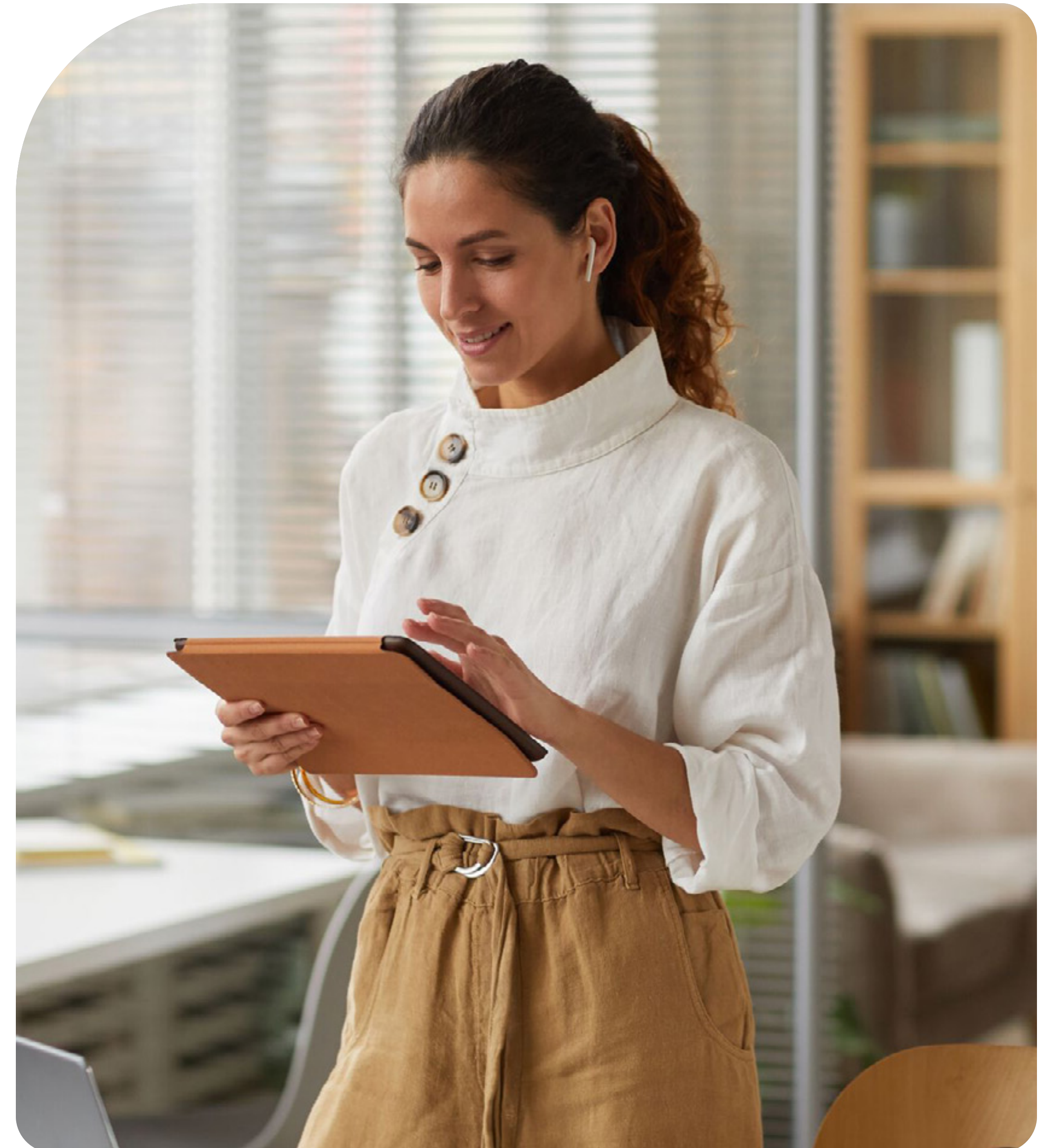
Using AI to support contact center agents and improve customer experience

AI can assist contact center agents in several ways, enhancing efficiency, customer satisfaction, and overall performance. Here are a few key ways your business can leverage AI to empower agents:

1. Real-time information and recommendations

AI can provide agents with real-time information like customer history, preference, and product recommendations. This can help agents to provide faster and more accurate, personalized service to customers.

For example, say a customer calls a shoe company because her latest order didn't fit. Upon dialing the customer support line, an automated AI service menu asks her if she's calling about her most recent order. After indicating she is, the customer is routed to an agent who already has her recent order pulled up so he is ready to help. After walking the customer through how to initiate a return and ordering a larger size for her, he can also recommend some complementary products like socks or shoe laces to add to her order. In just a few minutes, the customer resolves their issue and receives personalized support!

2. Automated responses and task automation

AI can automatically answer common user questions and requests, as well as automate basic tasks (like bill pay, appointment scheduling, and order/delivery confirmations), freeing up agents to focus on more complex tasks. They can also provide basic information about products and service, which can reduce support inquiry volume and allow human agents to offer personalized service and tackle more nuanced customer issues. Additionally, AI solutions are available 24/7, enabling customers to get answers and complete basic tasks anytime, even outside call center hours.

3. Sentiment analysis

AI can analyze the tone and sentiment of customer communications, alerting agents when users are frustrated or dissatisfied. This can help agents address issues proactively or provide alternative solutions to ensure the customer leaves satisfied, and help supervisors turn difficult conversations into training moments.
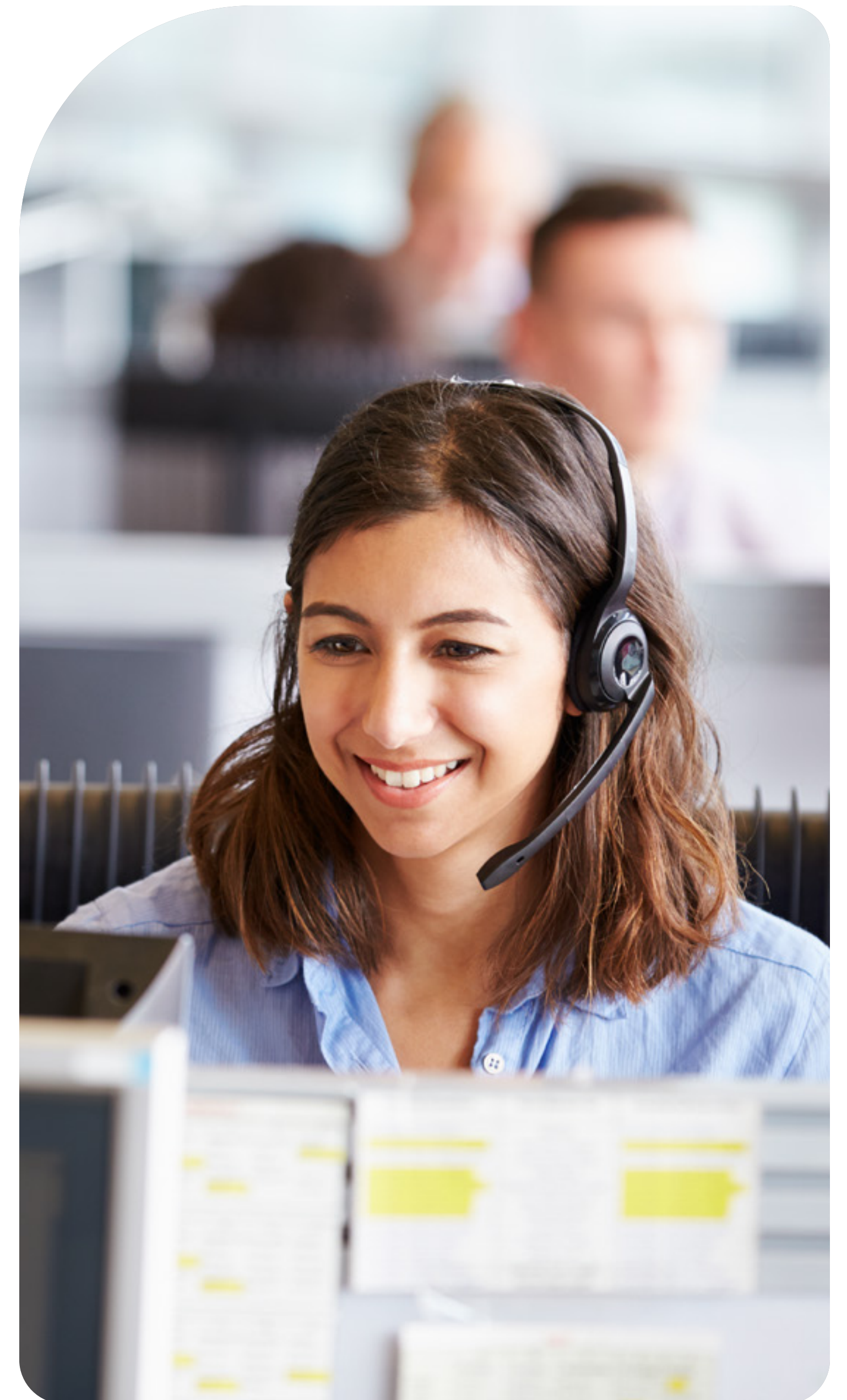
4. Predictive analytics

AI can also predict customer behavior and needs based on historical data, enabling agents to offer personalized solutions and recommendations.

For example, a customer contacts her telecom provider because she's having issues paying her bill. By analyzing the customer's profile and contact center data, AI can predict that the caller is experiencing a known billing issue that is affecting other customers with the same service plan. With a real-time alert about the predicted billing issue, the agent can proactively address and quickly resolve the user's issue without having to ask her endless questions to get additional context.

5. Transcription

AI can transcribe conversations in real-time, allowing agents to focus on serving the customer rather than note-taking. This also helps in creating detailed records for future reference, so agents can quickly get up to speed on a customer's past issues and how they were resolved if they call back.

Ultimately, the goal is to use AI and human agents *together* to create a seamless and positive customer experience. By leveraging the strengths of both AI and human agents, businesses can provide customers with the best possible service.

Ensuring responsible and ethical AI usage

While AI is a powerful tool that can help your business provide positive customer experiences, it must be used thoughtfully and tactfully in order to keep customers happy.

The golden rule? AI should complement human agents, not replace them.

While AI can help customers self-serve smaller issues and tasks or connect them to the right representative, it has its limitations. Ever yelled "Live agent!" in desperation in frustration to bypass an unhelpful automated system? Customers can easily get frustrated if they feel like a machine isn't understanding them. Live agents should be available to handle complex or sensitive interactions that require a more personal, human touch.

Overleveraging AI could put your business at risk

A word of caution: leaning too heavily on AI can be risky for your business. Take what happened to **AirCanada** as a cause for concern.

The airline had an on-site chatbot that was designed to enhance customer satisfaction with every interaction. However, when a user inquired about obtaining a

bereavement fare, the bot provided misleading and inaccurate information. Assuring the user he could book any flight and later request a refund within 90 days of ticket issuance, the bot's response deviated from AirCanada's actual bereavement policy.

The airline then declined to honor the fare adjustment, sparking a legal dispute between the parties. Ultimately, the court ruled in favor of the customer, recognizing he had every reason to assume the bot's response was legitimate.

This scenario shows why companies need a series of checks and balances to ensure AI is a tool, not a not a replacement for human oversight and accountability.

How could AirCanada have avoided this incident? By training its AI bot to escalate any customer inquiry without a confirmed answer to a human representative.

That way, a human can confirm the policy and determine the best way forward for the customer. While this might take more time, having these checks and balances in place can ensure customers receive accurate information and an empathetic response, which is crucial during highly emotional times, like after losing a loved one.

12

How to use AI responsibly

Using AI isn't a switch you flip and suddenly start using. You need to introduce it to your business mindfully in order to reap the benefits. To start, you need to set a clear business objective for your AI implementation and innovate responsibly through effective AI governance. AI governance is the backbone of a solid AI strategy, ensuring your AI models play by the rules, respect privacy, and don't mess up.

Here are a few guiding principles to keep in mind when designing your AI governance and using AI responsibly:

1. Data privacy

Your customers' personal information is invaluable to your business. However, without their trust in your ability to safeguard their data, customers will hesitate to share this crucial information.

By prioritizing data privacy, you not only adhere to regulatory requirements but also foster a foundation of trust and loyalty with your customers. Maintaining robust data protection measures demonstrates your business' commitment to data security, making your users more confident and willing to engage with your business. This trust not only enhances customer relationships but also drives the long-term success of your AI strategy.

2. Bias mitigation

One downside of AI? It's potential for bias. Your team needs to carefully scrutinize every data point to ensure your systems operate without any skewed perceptions. By proactively addressing data bias, you're not just improving AI accuracy but also enhancing the reliability, effectiveness, and fairness of your business processes.

3. Transparency

While AI is pervasive, not everyone knows what it is or how it works. In order to make your customers more comfortable interacting with your AI-powered services, be more transparent around how your organization uses AI and how it can benefit your users.

Wondering how to increase transparency with your customers? **Twilio's AI Nutrition Facts** offer consumers and businesses a clear view of how their data is utilized, particularly when training large language models (LLMs) with vendors like AWS, Google, and OpenAI.

If you're considering AI adoption and want to do so responsibly, creating your own visual AI Nutrition Facts label can provide valuable insights into data usage and build trust with your customers. **Create your label now >**

Chapter 04

The power of bringing AI, voice, and contact centers together

By leveraging the strengths of AI for data analysis and automation, voice technology for natural and intuitive interactions, and contact centers for a personalized human touch, businesses can create a robust and responsive service ecosystem.

In this section, we explore how these technologies complement each other and how their combined use is changing the service landscape:

Customer self-service

Many companies use AI to provide customers with self-service options. In many cases when customers call in with a problem, they are first greeted by an AI-powered virtual agent. The chatbot can answer simple questions, such as how to reset a password or pay a bill.

If the virtual agent cannot answer the customer's question, it will then transfer the call to a human agent. This process can help companies reduce the number of calls that need to be handled by human agents, freeing up agents to focus on more complex customer interactions.

It also allows customers to get the answers they need quickly, without having to wait on hold for a human agent to become available. A win-win for both businesses and customers!

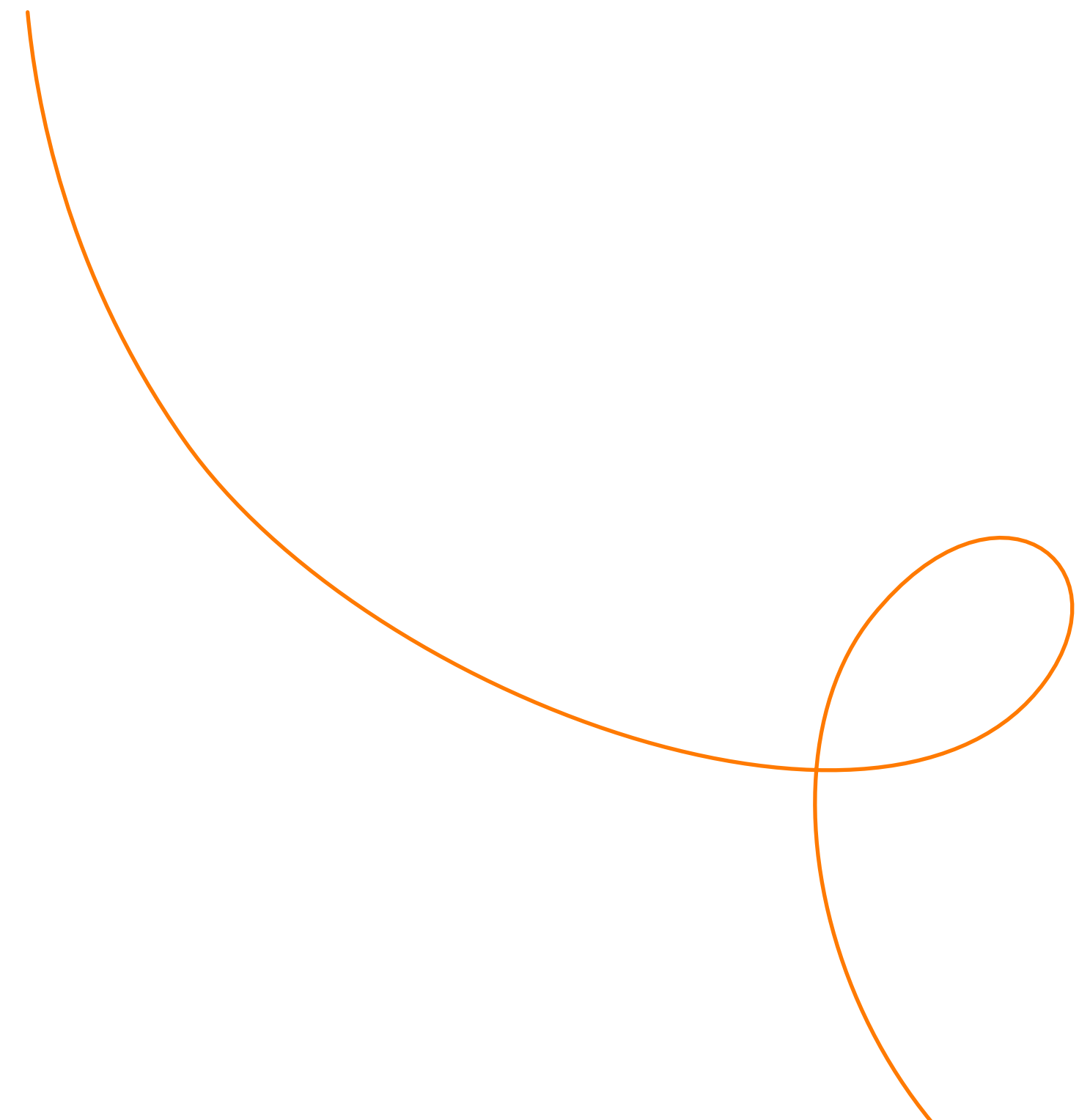| Legacy IVR/contact center systems	Powered by AI
• A customer calls a company to pay their bill.	• A customer calls a company to pay their bill.
• They wait through a lengthy IVR menu before selecting the prompt to speak with the company's billing department.	• Because it's near the end of the month and their billing cycle, an AI-powered prompt asks them if they're looking to pay their most recent bill over the phone.
• The caller is placed on a brief hold while a human agent is found.	• After pressing 1 for "Yes", the customer confirms their identity by sharing their account number and pressing the # key.
• Once connected, the customer tells the agent they need to pay their most recent bill.	• After hearing their bill amount, the customer then enters their credit card number, expiration date, and security code.
• The agent confirms the caller's identity.	• The virtual agent then confirms the payment has been made and issues the customer a confirmation code before ending the call.
• Once their identity has been validated, the agent can collect the customer's payment information.	
• After confirming the payment amount, the agent charges the customer's card and issues them a payment confirmation code before ending the call.	

Agent support

By intelligently routing calls, AI can direct customers to the right agents quickly, helping them get the answers and help they need quicker. Of course, agents can benefit from AI too. AI can give agents the contextual information they need to solve customer issues faster, helping them deliver more efficient and personalized support in the process.

Legacy IVR/contact center systems

- A customer calls with a question about their recent order.

- They wait through a lengthy IVR menu before selecting the prompt to speak with a live agent.

- Once connected with the agent, the customer explains their recent order was damaged in transit.

- The agent apologizes for the inconvenience and forwards the caller to another department that can help.

- The customer is put on hold.

- After being connected with the right department, the customer explains their situation again to a new agent to get them up to speed.

- After getting the context they need from the customer, the new agent overnights a replacement item to apologize for the inconvenience.

Powered by AI

- A customer calls with a question about their recent order.

- The IVR's first prompt is "Are you calling about your most recent order on May 12th?". The customer confirms they are.

- Once connected with an agent, the customer explains their recent order was damaged in transit.

- Using an AI-generated script, the agent thanks the user for their call and quickly schedules a replacement item to be overnighted to the customer. They also include a small add-on item to apologize for the inconvenience and thank them for their loyalty – a speedy and friendly interaction!

How to incorporate AI into your voice and contact center strategy

Integrating AI into your voice and contact center strategy is a transformative step towards enhancing customer service and operational efficiency. By leveraging AI technologies, businesses can automate routine tasks, provide real-time insights, and offer personalized interactions that elevate the customer experience.

However, implementing AI is not an overnight change; it requires careful planning, gradual integration, and continuous optimization to achieve the best results. To successfully incorporate AI into your existing voice and contact center operations, you'll want to take a few key steps to ensure a seamless transition for your team – and one that maximizes the benefits of this powerful technology for your business.

1. Ensure your data is clean and accessible

Your AI is only as good as your data. In order to get the most out of your AI, you need clean, accurate, and accessible customer data. Your first step should be ensuring your data tools – like a **customer relationship management (CRM)** or **customer data platform (CDP)** systems – are fully integrated with your contact center.

Additionally, these tools should include identity resolution capabilities to create a comprehensive, single view of each customer. This foundation will enable your AI to deliver precise insights and personalized interactions, enhancing both customer experience and operational efficiency.

18

2. Assess your current strategy and identify the problem(s) to be solved by AI

Next, you'll want to evaluate your current voice and contact center processes and workflows to understand what's working, where agents are spending too much time, and where customers are getting frustrated. This can help you identify areas where AI can improve your processes for both agents and customers.

You'll also want to define clear goals for your AI implementation, such as improving customer satisfaction, reducing operational costs, or enhancing agent productivity. This will help direct your planning and efforts moving forward.

3. Select the right AI solution

Once your data is ready for AI and you know how you plan to use the technology, it's time to choose your AI solution. Some contact centers solutions integrate with AI tools, like **Twilio Unify**, making this selection process even easier for your business. If your solution does not feature such an integration, you'll want to choose one that can meet all your needs, such as offering AI chatbots, virtual assistants, speech recognition, and natural language processing (NLP).
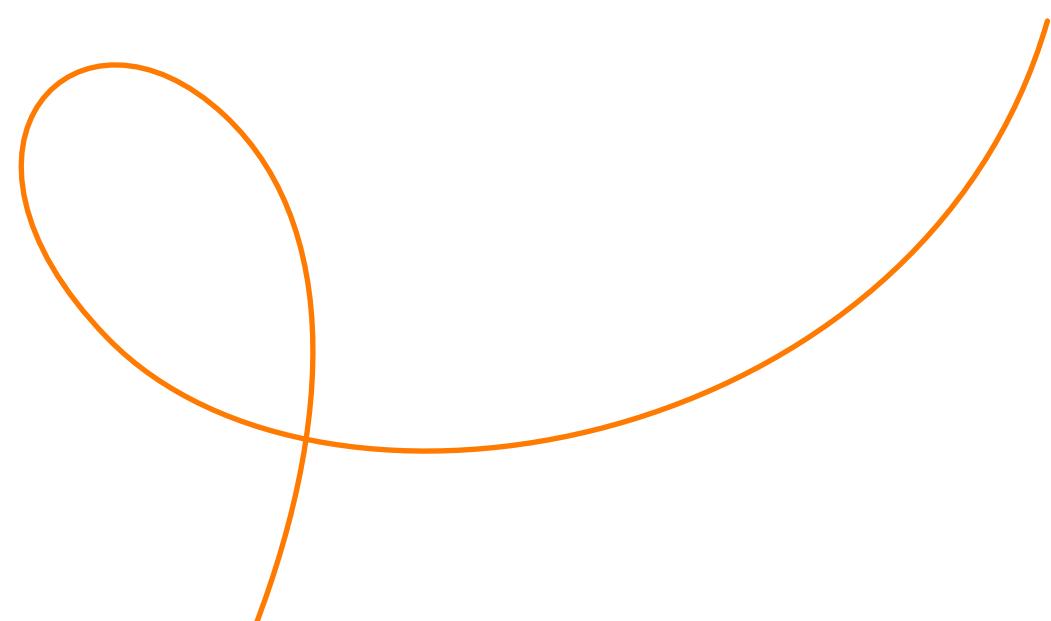
Effective strategy is built on solid foundations

Purpose

Data

Platform

Algorithms

19
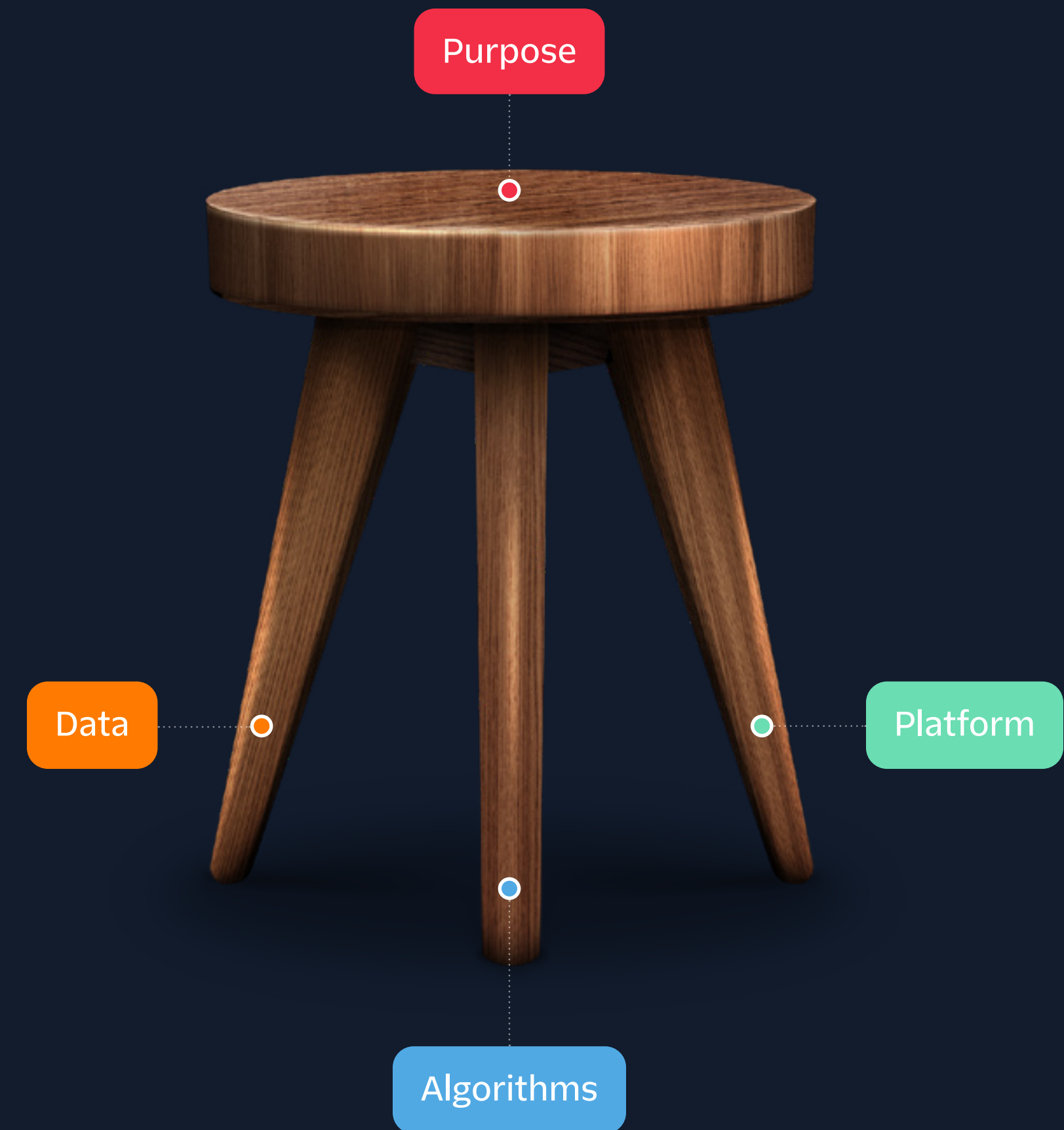
4. Design an AI roadmap

Next, it's time to create a detailed AI integration timeline to define which internal teams will oversee the implementation and continued maintenance of your AI tools and models. This might include IT and engineering staff, project managers, contact center representatives, and more.

> **Tip:** This should be built as a template that can be easily replicated across all of your future AI projects.

5. Train your team

Having AI tools won't do you any good if no one on your team uses them. Be sure to host ongoing internal enablement sessions to train your employees on how to use and get the most out of your tools. You'll want them to be extremely familiar with AI before they start taking AI-powered customer calls.

You'll also want to remind your contact center agents that they play an important role in further refining your AI

solutions. Show them how to report edge cases and sub-par AI interactions, so your team can continuously train and refine your AI models using real interaction data, improving their accuracy and responsiveness over time.

6. Test and optimize

Piggybacking on that idea: your AI should be constantly evolving. Make sure both your agents and customers have a way to share feedback when they have a positive or negative experience with your business. Collecting these insights can help your business make necessary adjustments to your AI systems to optimize their functionality and effectiveness.

Of course, you'll also want to track and analyze key call center key performance indicators (KPIs) to measure the success of the AI integration. This might include resolution times, customer satisfaction scores, and cost savings. Tracking these metrics can not only help you track and identify issues and opportunities in your AI strategy, but it can also help you prove the ROI of your AI-powered contact center. This can help ensure you have the budget and internal buy-in necessary to continue to invest in your contact center and meet the evolving needs of your customers.

Conclusion

AI capabilities are transforming modern contact centers. They empower businesses to deliver superior customer experiences, boost agent productivity, optimize efficiency, minimize costs, and ensure seamless scalability. They also allow agents to tailor interactions to each individual's needs, creating memorable customer experiences that foster loyalty and strengthen brand reputation.

Looking to unlock a new era of customer engagement and operational excellence? Powered by AI and real-time data, **Twilio Flex** is ready to help.

With golden customer profiles, real-time data, and omnichannel capabilities, Twilio Flex allows your business to deliver best-in-class, hyper-personalized service across virtual interactions and agent conversations.

Talk to our experts today to learn more about implementing AI and omnichannel solutions into Twilio Flex.

twilio

Today's leading companies trust Twilio's Customer Engagement Platform (CEP) to build direct, personalized relationships with their customers everywhere in the world. Twilio enables companies to use their communications and data to add intelligence and security to every step of the customer journey, from sales to marketing to growth, customer service and many more engagement use cases in a flexible, programmatic way. Across 180 countries, millions of developers and hundreds of thousands of businesses use Twilio to create magical experiences for their customers.
For more information about Twilio (NYSE: TWLO), visit: www.twilio.com.