Better customer service with AI agents

What are AI agents and how can they help serve customers?

An artificial intelligence (AI) agent is a system or program capable of autonomously performing tasks on behalf of a user or another system by designing its workflow and utilizing available tools. Unlike other AI tools, these agents are capable of independent problem-solving and can perform tasks or reach specific goals by interacting with external environments.

These agents are primarily based on advanced large language models (LLMs) and leverage a varying combination of machine learning, natural language processing (NLP) and automation to understand, respond to and manage customer interactions across various communication channels. Today they are used to improve the customer experience (CX), optimize resources and drive data-informed decision-making across customer support operations.

In a crowded and hyper-competitive business landscape, customer experience is an increasingly critical factor in an enterprise's success. But as consumers demand more out of their customer interactions, service professionals are struggling to meet expectations. According to recent research from Salesforce, 82% of service representatives say customers want more than they used to.[1] Burnout among customer service professionals is rising given the volume of customer requests and the often monotonous nature of the work.

With their ability to complete a variety of complex tasks simultaneously, autonomous AI agents can play a critical role in enhancing customer support. Autonomous agents are currently used to streamline self-service options for customers and automate basic routine tasks. But their capacity to reimagine workflows and quickly scale are likely to significantly alter customer service execution and design, particularly given recent advancements in generative AI and conversational AI. Depending on the level of integration with service departments, agents can increase operational efficiency for human agents, provide superior and personalized customer experiences, engage and guide consumers through the service process, or resolve issues entirely with minimal human intervention.

Such partnerships between human and AI customer service agents are expected to deepen as AI agents are deployed with increasing frequency. This means that as the technology reaches maturity, it will play a larger role in driving organizational decision-making and completing tasks previously performed by human agents.[2] While these changes stand to significantly increase efficiency and productivity in customer service, they also fundamentally reimagine the role of a support team, placing more emphasis on emotional intelligence, relationship building and technical savvy.

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How AI agents for customer service work

Unlike non-agentic assistants (e.g., chatbots) which only answer questions one at a time, AI agents are capable of holding memory from one day to the next, reasoning and taking action on their own.

AI agents process customer or employee queries to understand intent and context, asking questions if necessary. Depending on the complexity of their programmed tasks and the number of external tools they're granted access to, AI agents can resolve customer service tickets, message with customers, analyze consumer data, escalate complex issues to human agents and provide personalized service experiences.

For example, AI agents connected to various other systems and datasets could draw on preset tools to help a family plan a vacation: By suggesting destinations based on existing user preferences, mapping routes, recommending hotels and making reservations. With the integration of third-party data, a vacation-planning network of agents could also alter plans in real-time in response to conditions like weather or traffic.

Use cases for AI agents in customer service

Agentic customer service tools can handle simple tasks or complex workflows, depending on how they're developed and how many tools they are able to access. Many AI agents act as part of a network, called an agentic system, where each agent performs a separate task before handing a query off to another task- or goal-specific bot.

For example, a networked agentic AI solutions could interpret a customer inquiry, identify the nature of a service request and automatically issue a refund or service ticket. These tools often integrate with third-party apps such as customer relationship management (CRM) software or communication tools like Slack to enhance existing systems and collect relevant data.

Taken together, these tools enhance customer satisfaction (CSAT) by providing timely and accurate resolution of service requests and other communications, leading to better customer experiences.

Some common use cases for AI agents in customer service include:

Addressing customer queries

Where AI assistants can only typically handle pre-set FAQs and common questions, AI agents engage in dynamic communications with customers regarding order status, refund policies, product issues and other highly specialized queries. They can personalize requests based on previous interactions to provide high-touch customer care.

For example, when the RV retailer Camping World integrated virtual agent technology into its customer service process, it found that customer engagement increased 40% while wait times dropped from hours to 33 seconds.

Knowledge management and data-driven insights

AI agents can organize and retrieve relevant data and knowledge base articles, ensuring both customers and support agents have access to accurate, personalized information in real time.

Order status and tracking

AI agents proactively provide updates on customers' order status and tracking in real-time, providing relevant information based on shipping data, traffic conditions or even weather patterns.

Personalized recommendations and support

Agentic AI can help diagnose and resolve software, hardware or product issues for customers, storing information about their preferences for more accurate support. It can also provide recommendations for additional products. By storing preferences like these, AI agents can also suggest relevant products and services based on individual consumer needs.

Identifying customer sentiment

Given access to sentiment analysis tools, AI agents are able to proactively interpret how consumers are responding to new products or initiatives. These agents can act as a early warning systems for potential issues or strategic partners for brainstorming new product capabilities based on customer data. They can also provide summaries of meetings, service calls and other customer communications, providing training material for new customer service representatives and a sense of continuity across an enterprise.

Process automation

AI agents help with critical routine tasks such as customer data management, project management and other administrative tasks. For example, Avid Solutions, a research and development first, successfully reduced the time it takes to onboard new customers by 25% using agentic AI.

Troubleshooting and technical support

AI systems, including agents equipped with natural language processing, guide customers through troubleshooting steps for technical or service-related issues. Given their ability to retain "memory" over time and personalize outputs, these tools can provide accurate support for a number of customer issues based on individual variables.

Benefits of using AI agents for customer service

Agentic AI and its associated AI-powered customer service tools increase efficiency, reduce errors and provide human agents with critical intelligence to proactively respond to customer needs. By offloading routine manual tasks to digital workers, customer service professionals have more opportunity to forge valuable connections with consumers.

For example, a major shipping company used agentic AI to reduce the amount of time spent on onboarding paperwork from four hours a week to 30 minutes. This allowed operations staff to dramatically increase time spent on more creative and nuanced customer care initiatives.

Some additional benefits of using AI agents for customer service include:

24/7 availability

With customer service-oriented AI agents, customers can receive personalized and comprehensive support in multiple languages and locations without the constraints placed on human agents.

Data-driven insights

AI agents proactively collect and analyze customer interaction data that would be impossible for a single human to parse. Using this data agentic AI can identify trends, optimize resources and enhance service quality, or act as an early warning sign for potential issues.

Improved human agent interaction

AI agents free up human representatives to focus on complex or sensitive customer interactions, or to work on more creative customer service initiatives.

Improved operational efficiency and productivity

AI agents automate repetitive tasks such as service ticket creation, allowing enterprises to allocate resources more effectively.

Omnichannel support

AI agents provide seamless and cohesive support across various channels including chat, email, phone and social media.

Reduced customer response time

AI systems analyze and respond to customer queries instantly, at any time of day, minimizing backlogs and delays.

Reduced operational costs

Businesses lower operational expenses by automating routine interactions and reducing the need for large support teams.

Scalability

AI-driven systems handle growing customer inquiries without additional staffing or infrastructural costs.

Four best practices for using AI agents in customer service

Capturing true value from AI agents in customer service often requires clarity, long-term planning and a reimagining of roles. Four best practices for companies deploying these tools include:

Integrating AI into a broader customer engagement strategy

AI agents should complement human customer service teams and align with overall service goals. Rather than simply automating select workflows and practices without guidance, the most successful deployments identify both long and short-term goals based around specific metrics like improved CSAT scores or resolution time.

Providing AI agents with appropriate data and tools

AI agents are most successful when they are trained on clean, appropriate data and equipped with the most relevant capabilities. Equipping support agents to handle autonomous tasks may involve vetting API tools, hiring data scientists or investing in additional infrastructure. Ensuring AI agents have continuous access to the latest knowledge bases and automation tools allow them to perform more effectively and evolve to changing needs.

Integrating agents with enterprise-wise systems

As IBM has found, AI deployments are most productive when they're integrated deeply into existing workflows. The most useful sales-based AI agents seamlessly connect with CRM, enterprise resource management (ERP) and other enterprise systems to access relevant data and streamline administrative processes. By modernizing existing systems, removing silos, and allowing data access across an organization, leaders can empower AI agents to make more effective decisions and provide robust analytics based on changing conditions.

Upskilling human agents

With agentic AI performing a serious of routine tasks previously handled by human support agents, customer service departments necessarily change. Customer service representatives may require additional training to work productively alongside AI agents, querying them appropriately and utilizing their insights to improve customer interactions. Clear policies for elevating critical customer issues to human support teams can also prevent both employee and customer frustration.