

## Training Report Day-31

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### What is Chatbot?

A chatbot is a computer program that simulates human conversation with an end user. Not all chatbots are equipped with artificial intelligence (AI), but modern chatbots increasingly use conversational AI techniques such as natural language processing (NLP) to understand user questions and automate responses to them.



#### ✓ Generative AI-powered chatbots

The next generation of chatbots with [generative AI](#) capabilities will offer even more enhanced functionality with their understanding of common language and complex queries, their ability to adapt to a user's style of conversation and use of empathy when answering users' questions. Business leaders can clearly see this future: 85% of execs say generative AI will be interacting directly with customers in the next two years, as reported in [The CEO's guide to generative AI study](#), from IBV. An enterprise-grade artificial intelligence solution

can empower companies to automate self-service and accelerate the development of exceptional user experiences.

FAQ chatbots no longer need to be pre-programmed with answers to set questions: It's easier and faster to use generative AI in combination with an organization's knowledge base to automatically generate answers in response to the wider range of questions.

While conversational AI chatbots can digest a users' questions or comments and generate a human-like response, generative AI chatbots can take this a step further by generating new content as the output. This new content can include high-quality text, images and sound based on the LLMs they are trained on. Chatbot interfaces with generative AI can [recognize, summarize, translate, predict and create content](#) in response to a user's query without the need for human interaction.

### ✓ The value of chatbots

Chatbots can make it easy for users to find information by instantaneously responding to questions and requests—through text input, audio input, or both—without the need for human intervention or manual research.

Chatbot technology is now commonplace, found everywhere from smart speakers at home and consumer-facing instances of SMS, WhatsApp and Facebook Messenger, to workplace messaging applications including Slack. The latest evolution of AI chatbots, often referred to as "[intelligent virtual assistants](#)" or "[virtual agents](#)," can not only understand free-flowing conversation through use of sophisticated language models, but even automate relevant tasks. Alongside well-known consumer-facing intelligent virtual assistants—such as Apple's Siri, Amazon Alexa, Google's Gemini and OpenAI's ChatGPT—virtual agents are also increasingly used in an enterprise context to assist customers and employees.

### ✓ How chatbots work

The earliest chatbots were essentially interactive FAQ programs, which relied on a limited set of common questions with pre-written answers. Unable to interpret natural language, these FAQs generally required users to select from simple keywords and phrases to move the conversation forward. Such rudimentary, traditional chatbots are unable to process complex questions, nor answer simple questions that haven't been predicted by developers.

Over time, chatbot algorithms became capable of more complex rules-based programming and even natural language processing, enabling customer queries to be expressed in a conversational way. This gave rise to a new type of chatbot, contextually aware and armed with [machine learning](#) to continuously optimize its ability to correctly process and predict queries through exposure to more and more human language.