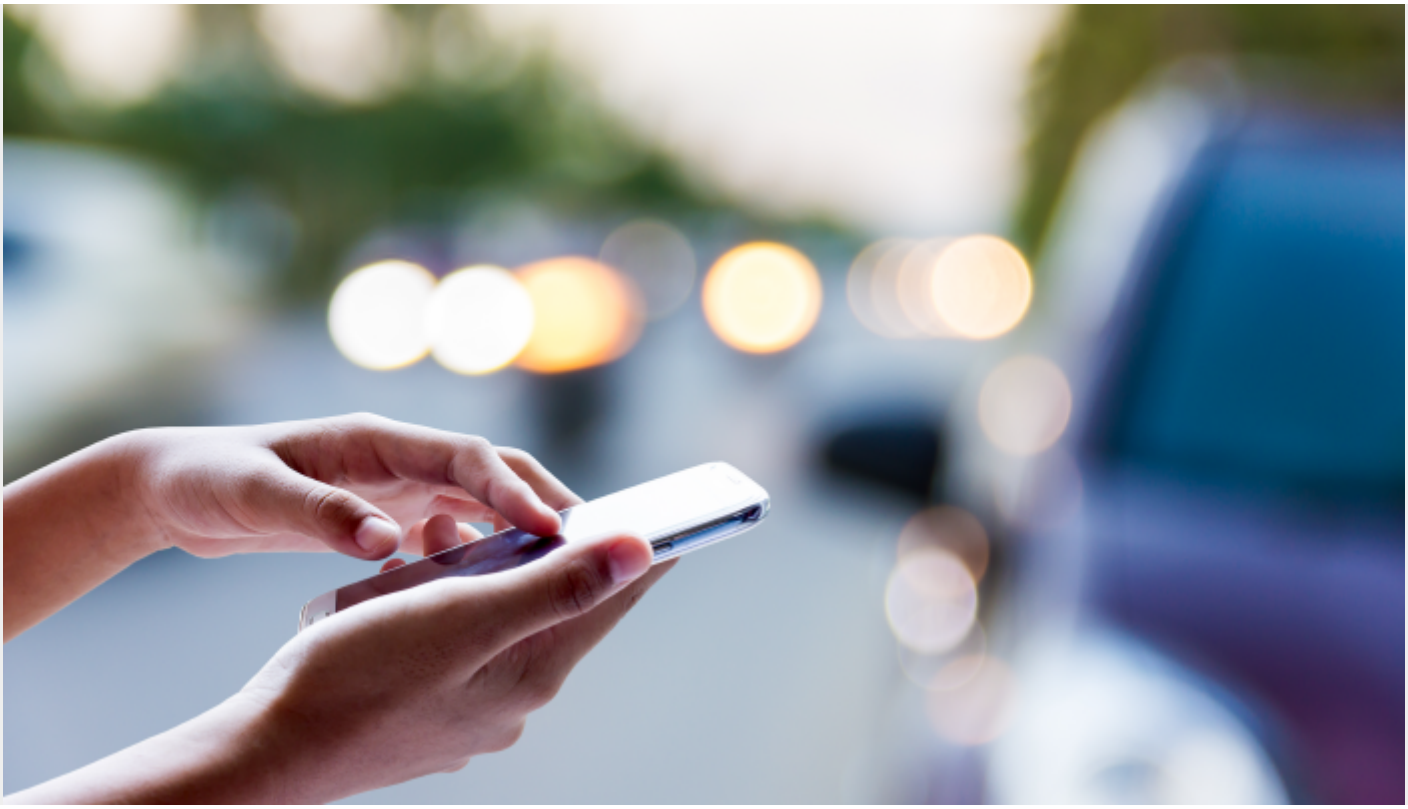
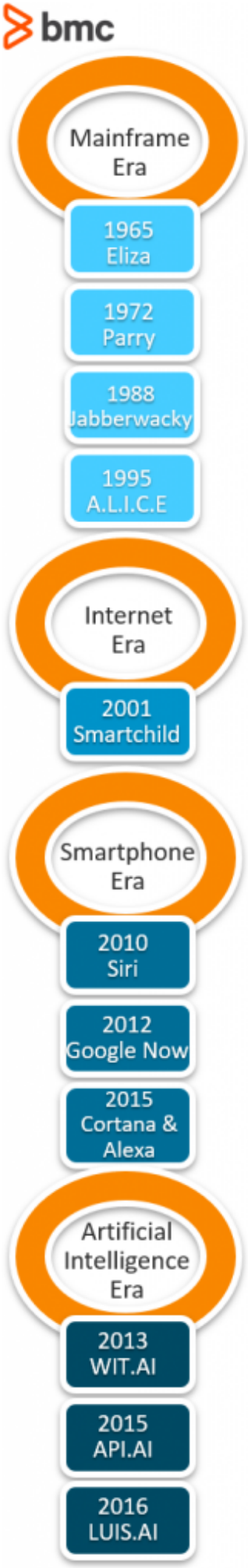
ENTERPRISE CHATBOTS: HOW TO USE CHATBOTS IN THE WORKPLACE



In the mid-1960s, well before my time, Joseph Weizenbaum at the MIT Artificial Intelligence Laboratory wrote a natural language processing program to study communication between man and machine, mimicking a series of generic psychotherapist responses on a script. The result was ELIZA.

ELIZA is the mother of chatbots, previously termed 'chatterbot'. She has given rise to more advanced forms like Apple's Siri and Amazon's Alexa, as the timeline below illustrates, in a huge industry that's projected to grow from $2.6 billion in 2019 to $9.4 billion by 2024 according to Business Insider.

In this article, we'll take a look at chatbots, especially in the enterprise, use cases, pros/cons, and the future of chatbots.


bmc
Mainframe Era
1965 Eliza
1972 Parry
1988 Jabberwacky
1995 A.L.I.C.E
Internet Era
2001 Smartchild
Smartphone Era
2010 Siri
2012 Google Now
2015 Cortana & Alexa
Artificial Intelligence Era
2013 WIT.AI
2015 API.AI
2016 LUIS.AI

Timeline of chatbots,
1965-today (*Source*)

What are chatbots?

The Cambridge dictionary defines a chatbot as a computer program designed to have a conversation with a human being, especially over the internet.

Today, we can separate chatbots into two categories: text-based and voice-based:

- **Text-based chatbots**, like those on company websites, mimic a texting conversation.
- **Voice-based chatbots**, like Cortana, Siri, and Alexa, mimic a verbal conversation between two people, though that conversation is still mostly unsophisticated. (These developments are the foundation of the burgeoning voice tech industry.)

Chatbots cater to billions of users who are increasingly abandoning calling, preferring to text when it comes to communication. The huge driver is that in the smartphone age, messaging applications are in vogue:

- WhatsApp
- WeChat
- Apple Messenger
- Telegram
- Etc., etc.

Their rich capabilities allow us to share emojis, images, videos, documents, and audio files as well as linking to other apps, make them the preferred mode of communication, especially for younger generations.

Human interaction—phone calls, in person meetings—are still the de facto means when it comes to dealing with entities where a personal relationship doesn't exist, such as companies and organizations. Today, chatbots are bridging that gap.

What are enterprise chatbots?

An area of chatbot that's particularly taking off is called enterprise chatbots.

Enterprise chatbots are designed to run in the workplace, so they can account for a variety of uses that often support employees and customers. Where regular chatbots might be made for one specific use case—ordering a pizza, for example—enterprise chatbots likely have to handle many different use cases, as we'll see below.

In the workplace, enterprise leaders are embracing chatbots because they are:

- Easy to use and require little to no user training
- Getting easier to build and develop
- Iterative, allowing you to focus on a couple initial use cases and then expand as you go
- Cost-effective

How chatbots work

The most basic chatbots follow a two-step process. They:

1. Work off a script, engaging with a human when triggered by an action, like visiting a website, or starting a chat from a support link.
2. Align keywords from the user to stored knowledge in order to generate a response according to automated rules, rarely going off script.

Advancements to chatbots are primarily being driven by artificial intelligence that facilitates the conversation through natural language processing (NLP) and machine learning (ML) capabilities.

A chatbot simulates a conversation through text on a website, a messaging application, or a mobile app. The chatbot is programmed to engage with incoming messages in two ways:

- In a standardized way, like the automatic rules from above
- Or, by adapting its responses to unique queries through natural language processing and machine learning

Business use cases for chatbots

So, what can companies and enterprises use chatbots for? Here are the main use cases so far:

Customer service

Chatbots are taking the place of the first point of contact for anyone visiting your company's website, social media channel, or chat application. Interacting with the chatbot, the customer can ask a question, place an order, raise a complaint or ask to be handed over to a human customer service agent.

The chatbot could then perform a few functions:

- Route the customer to the right webpage or feature
- Provide required instructions
- Raise a ticket which will be handed over to a human for further action.

Virtual agent/assistant

Most chatbots are not virtual agents/assistants, but a few voice-enabled options can perform these tasks at a basic level.

Acting as digital assistants, chatbots, especially voice-based ones like Siri and Alexa, are useful for:

- **Providing information**, like weather, traffic, contacts, or anything else that can be googled
- **Performing tasks** that revolve around scheduling or booking such as setting appointments or hailing a cab or booking a meeting with your team.

While you could use these chatbots to act as mini-virtual assistants—asking yours to set a reminder for you for a subscription renewal a wake-up alarm—you probably wouldn't ask a chatbot to handle a sales lead or develop a strategy.

E-commerce support

Chatbots support the online shopping process in a variety of ways:

- Providing a shortcut to finding information on a desired product
- Offering recommendations or alternate suggestions
- Completing the purchase process
- Even performing previously mentioned customer service tasks such as help tracking packages and handling returns

Chatbots now make the e-commerce shopping more personalized and as a result, boost conversion rates.

Tech support

According to Forbes, it is estimated that 30% to 50% of ITSM first line support tasks are repetitive in nature.

Chatbots can take these algorithmic tasks, particularly the monotonous kind, leaving humans to carry out the more heuristic work. These include:

- Resetting passwords
- Categorizing and routing requests
- Providing information from FAQs and user guides

(Compare the differences between customer support and tech support to see where chatbots could make the biggest impact.)

Pros & cons of chatbots

A survey by Intercom revealed that business leaders saved *an average of $300,000* in 2019 from their chatbots, with the greatest impact occurring across support and sales teams. With the promise of cost savings, 24/7/365 availability, and potential to handle more complex interactions, chatbots will increasingly entice any digital driven enterprise now and in the near future.

But…

Chatbots are not about to replace humans any time soon. Dealing with complex human emotions, especially in the customer support sector, is not an area that technology has shown capability in.

According to the ITIL 4 DSV publication, some of the current limitations of chatbots include:

- Limited applicability
- Insufficient and inadequate data for machine learning
- Restricted multi-language support

But as AI technology evolves, it is certain that we will see some these gaps being bridged leading to more value from chatbots in the enterprise.

Enterprise chatbot best practices

Designing an enterprise chatbot involves understanding and distilling repetitive requests that occur widely across the business. Best practices for enterprise chatbots can help define your path forward:

1. **Determine business outcomes and how you'll measure chatbot success.** What problem are you trying to solve? How will you measure to know you've succeeded?
2. **Identify key use cases.** The first versions of any enterprise chatbot should focus narrowly on a handful of frequent requests. (As you improve your chatbot, expanding use cases gets easier.)
3. **Map user access.** What users will each chatbot use case target? What channels do those users currently use? Meet them and introduce the chatbot there.
4. **Communicate.** Chatbot talk isn't just about promoting your chatbot, though of course it's step one. Then, encourage users to share feedback on the chatbot, so you can continually improve.
5. **Train the bot.** Training an enterprise chatbot requires a wide enough knowledge base to handle the use cases you've chosen. Training likely also requires dialogue and natural language processing, so that your chatbot feels somewhat natural to the users. Even better is to incorporate some personality. An easy way to do this is to promote casual, colloquial talk. Even if your company brand to the world is very formal, an in-house chatbot that's easy to understand makes for wider adoption. You'll have more ways to expand the personality down the line, and you could even consider upgrading to a virtual agent.
6. **Build the chatbot.** Once the chatbot passes a satisfactory training, it's time to move the chatbot into production. Test for both performance and functionality. If you roll out a chatbot that has too many bugs, for instance, you'll have a harder time getting users to try it again down the road.
7. **Monitor and improve.** Enterprise chatbots are so popular in the workplace because they are iterative. Monitor usage and those metrics you defined in step 1. If you see some below-average performance, you can always take the chatbot through more supervised training.

BMC for enterprise chatbots

AI Breakthrough, a leading market intelligence organization, awarded the 2020 AI Breakthrough Award for Best Chatbot Solution to BMC Helix Chatbot.

BMC Helix Chatbot brings the cognitive enterprise to life with intelligent, omni-channel experiences that let users find and request services through a conversational and personalized interface.

As an enterprise chatbot, BMC Helix Chatbot delivers fast and accurate responses to users thanks to features like:

- Consumer-like experience
- Channel of choice
- Cognitive search
- Line of business (LOB) support
- Service Delivery: execute custom workflows and automate training

Future of enterprise chatbots

In 2011, Gartner predicted that by 2020 customers will manage 85% of their relationship with the enterprise without interacting with a human. Today, I'm venturing to guess we are definitely close to

that number. Chatbots are very much a part of this interaction.

The future for chatbots is truly bright.

Related reading

- BMC Business of IT Blog
- How To Build Your Own Chatbot
- Top Voice Tech Conferences to Attend
- ChatOps Explained: How ChatOps Supports Collaboration
- Machine Learning: Hype vs Reality