Bot Universe

This is how you combine specialists into all-rounders.

Content

Introduction

Chatbots are being used in many companies and often serve as the first touch point with customers. However, customer expectations are continuously growing. They expect quality-driven answers to all the different questions they ask. Individual bots quickly reach their information limits and customer frustration grows exponentially as a result.

In the following sections, you will learn how a complete bot universe can be used to deal with these issues, and also learn about the options available by combining different bots.
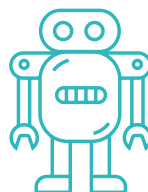
Chatbots are the Future of Customer Service

As a direct interface with customers, service is continually growing in importance. Customer service has relied on chatbots for some time now, and chatbots have become a fixture in our daily lives.

Chatbots are an important communication channel, both for customers and employees. When used in first-level customer contact, these digital assistants can process frequently-asked questions or carry out simple transactions (e.g. resetting a password, processing returns, completing a booking, qualifying leads). They are an important tool and a simple option when it comes to automation and cost reduction in different areas of a company's business. Artificial intelligence and machine learning make it possible for these digital assistants to give ever more precise answers.

Customer demand for more 24/7 support, sometimes irrespective of the industry, continues to increase the need for chatbots. According to a study performed by **Reports and Data**, the market for chatbots will be worth $10.08 billion by 2026. Chatbots have significant growth potential. The global market for chatbot-based solutions is currently worth well over half a billion euros, with an annual growth rate of more than 25% until 2030, several market analysts say (see for example **here**)

Thanks to the bots, information is available around the clock and questions are answered in real-time. The bots meet the steadily increasing demands of customers, contribute to a positive customer journey, and can also reduce service costs and relieve service employees.
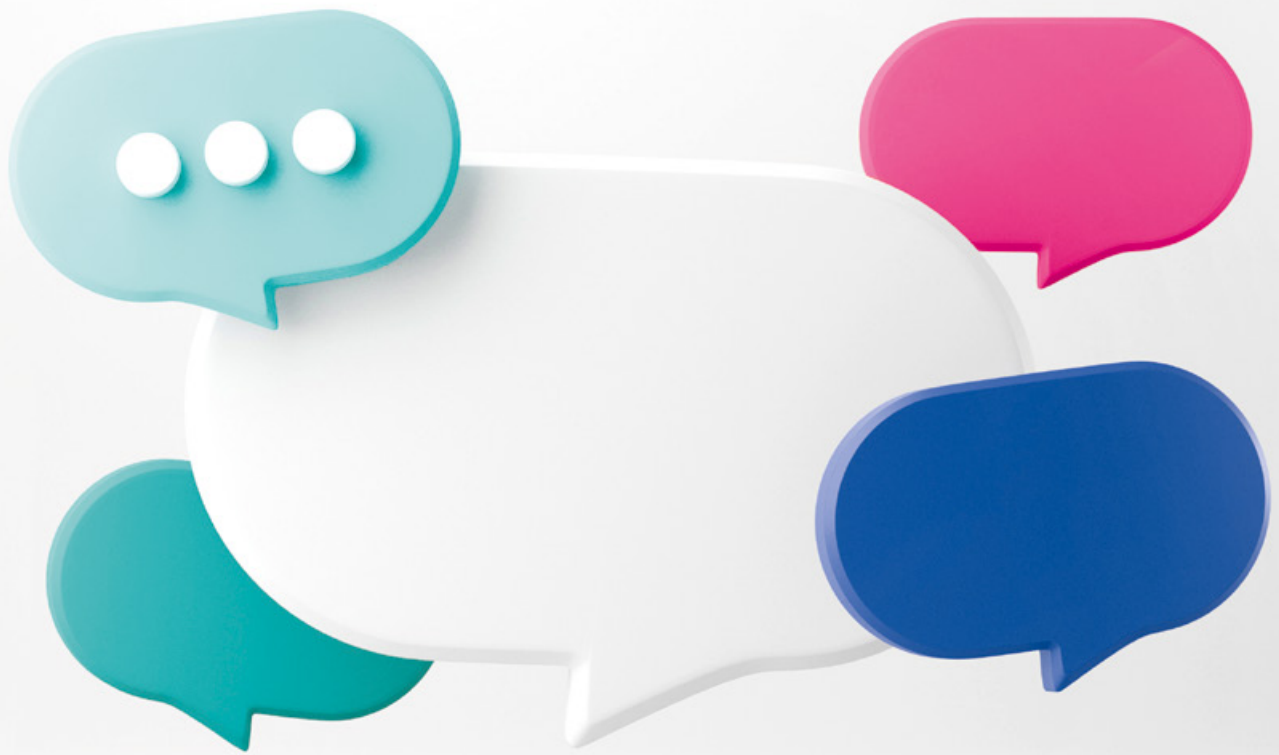
Many Service Departments Dread the Work Involved

Companies often assume that launching a chatbot means a great deal of effort, significant expenses and highly complex processes, causing them to shy away from the implementation.

Due to the diversity of needs and issues involved, chatbots today are unable to replace service staff completely. They are, however, very useful when they are deployed for specific use cases, in other words, as experts for specific topics. However, this also means that the customer must first search for the suitable chatbot that meets their needs, e.g. by clicking their way through the navigation of their website. This takes time and, in the worst-case scenario, can also be frustrating.

To get around this problem, a bot which can process multiple requests should be used. However, this leads to a major increase in the maintenance and editorial demands on the bot, and the customer may not get a specific answer. Neither of these paths is ideal for the company, or for the customer experience.

To get around this problem, USU has continued the development of chatbot technology and created a "Bot Universe".

The Bot Universe: Quick Wins and Long-Term Development

The solution: combine different bots that together can perform more complex tasks.

**Individually strong.
Together undefeatable.**

In accordance with this principle, multiple connected chatbots work as a team on complex tasks. With the Bot Universe, USU, a leading provider of IT and customer service solutions, offers a unique chatbot ecosystem that explores new possible uses for chatbots. A single chatbot can only cover limited functions. With an intelligent and flexible combination of chatbots in a Bot Universe, a more comprehensive customer service now becomes significantly more efficient. In the assessment of one of the leading analyst firms, so far that approach is unique worldwide.

What is it that makes this approach so unique? Chatbots work together as a team and are thus able to process much more complex service tasks efficiently. This is because each has their own special area of expertise and can be called upon as needed. In this way, USU Software AG also acts as a central facilitator, i.e. through the use of interfaces, chatbots from third parties which use different technologies can easily be integrated into the Bot Universe.

This offers unlimited performance capabilities and new service dimensions. With the Bot Universe, a technology has been developed using the "Lego principle", which allows for various chatbots to collaborate with one another, thereby enabling theoretically unlimited growth of bots.

Many Benefits Unified Within one Universe

No special knowledge required

The Bot Universe doesn't require any coding skills or development expertise. Simple adjustments can be carried out independently, thus generating significant cost savings.

Minimal repairs and maintenance

All the bots in the Universe operate independently of each other and can also be maintained separately. This makes supervision and regular maintenance easy for agents.
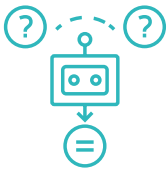
Simple on-off switching of expert bots

Since all bots function independently of each other, they can be switched on or off in the event of downtime, maintenance or a technical malfunction, with no effect on the Universe. This also means content editing is possible without interfering with other bots.

Expandable on demand

With integrated APIs, as many bots as needed can be integrated. This means the number of bots in the Universe can be easily expanded..

Simple integration of additional bots

As many bots as needed can be integrated into the Universe. In this case, it is irrelevant whether the bots use the same technology or if they are third-party bots. In the background, they are all managed on one single interface.

ChatGPT Today. And Tomorrow?

Respond flexibly to changes in the market with the Bot Universe architecture.

ChatGPT by openAI shows how fast technology develops and spreads. Its publication has made accessing major NLP language models more democratic. Ongoing development will benefit as well, because not only its use has been made possible, but also accessing models already trained.

At USU Software AG we are cautious when it comes to the quality of the statements of ChatGPT. Tests have shown that the responses leave much to be desired and are sometimes misleading or simply false. ChatGPT can be integrated into the USU Chatbot Universe as a small talk bot. Users can thus test the new technology and its many features.

Together with our customers we are working to develop more applications for ChatGPT. One use case may be to revise and rewrite documents using the company's signature tone of voice. In addition, we test the quality of the responses of ChatGPT when it is trained specifically using documents from KCenter, the USU Knowledge Management Software, rather than using existing sources from the Internet.

We cannot predict what developments will occur in the field of AI or ChatGPT. One thing is certain, however – we are not there yet. That's why we designed the architecture of the USU Chatbot Universe so as to integrate third-party technology via API interfaces with minimal effort and in the shortest possible time. This enabled us to integrate ChatGPT as part of the USU Chatbot Universe and to make it available to our users only a week after it went live.

The USU Bot Universe is **open to technology** of all kinds, and therefore it can respond flexibly to changes in the market.

Shared Knowledge. A Complete End-to-End Customer Experience.

The concept puts chatbots into two categories: expert bots and lead bots. The expert bots are registered in the Universe and can deliver information on specific topics. The other role, the lead bot, works as a first-contact chatbot, communicating first with the user and then transferring them to the respective expert bot. The lead bot works as a type of moderator, while the expert bots are responsible for answering the specific question. These modular bots allow for easy maintenance and servicing by editors. If a new topic is added, an additional bot is created and integrated into the Universe.

The interaction between lead bots and expert bots takes only split seconds. For customers, just one interface can be seen, following the "one face to the customer" principle. They do not notice the change backwards and forwards between different bots. Customers thus enjoy a seamless, smooth and positive customer journey.
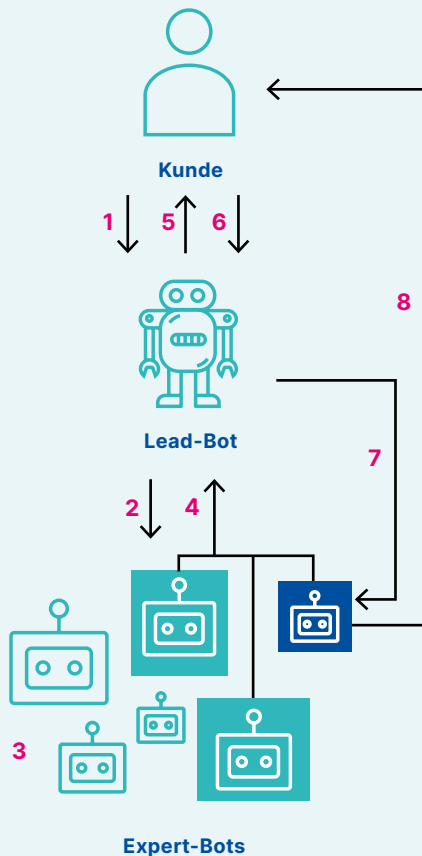
Option 1

User question is on a topic for which only one expert bot has the information.
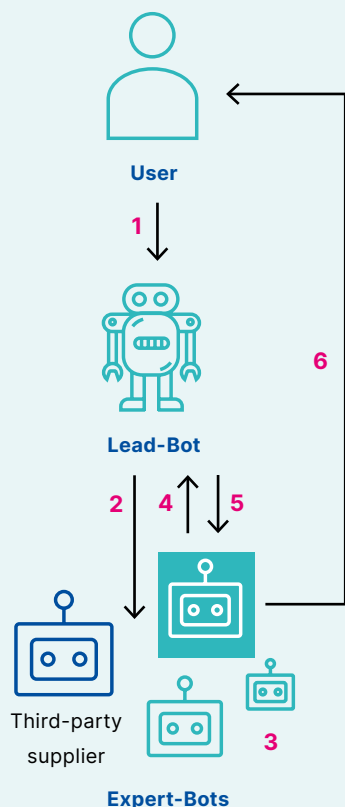
01 | The customer sends a query to the lead bot/the lead bot receives the query from the user.

02 | The lead bot forwards the query from the customer to the expert bots registered in the bot network.

03 | Each expert bot uses AI to decide whether or not it can respond to the query.

04 | The expert bot that can answer the query responds and sends a signal to the lead bot.

05 | The lead bot hands over the communication to the expert bot.

06 | The expert bot contacts the customer directly to respond to the query.

Option 2

A query from a user is related to a topic on which multiple expert bots have information.
The lead bot returns follow-up questions to the customer.

Kunde

Lead-Bot

Expert-Bots

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03 | Each expert bot uses AI to decide whether or not it can respond to the query.

04 | Expert bots that can answer the query respond and send a signal to the lead bot.

05 | To refine the search, the lead bot asks the customer exactly what topic they are interested in.

06 | The customer provides information in response to the lead bot's questions

07 | The lead bot hands over the communication to the expert bot.

08 | The expert bot contacts the customer directly to respond to the query.

Conclusion

Almost everyone has already had contact of some sort with a company's customer service department. Some of these interactions are remembered for being particularly positive or particularly negative. A positive interaction makes a customer a real "fan" and they will tell their friends, acquaintances and relatives of their experience. Customer service has become one of the most important "adverts" for a company. The biggest challenge here is: Customers remember negative customer service experiences for longer and more intensely.

To avoid this, chatbots are used nowadays. However, what has often happened with basic chatbot technology is that it's not always possible to offer customers a positive customer experience. The experience was often disappointing, because no solution was in sight despite query after query, consuming an excessive amount of time, with customers' frustration growing indefinitely.

But how would you feel if you were served by the company's best employee, who is in control of the company's entire knowledge and capable of using that wealth of knowledge to address your problem and solve it immediately, at least in a best-case scenario? Bot Universe makes it possible to offer customers a positive end-to-end service experience. With this new approach USU Software AG takes on new challenges and enables combining chatbots in a way that makes sense. Customers will then enjoy all the benefits of "one face to the customer", with bot communication included.

Further developments in the area of virtual assistants are going to be exciting. Despite the initial hype and subsequent disenchantment, one thing is clear: Bots are here to stay and have become an established support tool in customer service. Do you want to make your business more successful? Then get ready for the next step together with USU and into the Bot Universe.
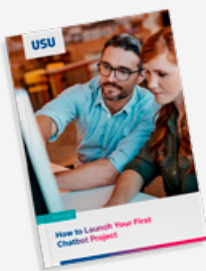
White Paper: Launch Your First Chatbot Project

This Smart Guide will serve as a blueprint for building and launching your chatbot project.

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In our E-book you can find the top five uses for chatbots.

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