Chatbot Building Toolkit

A Guide to Creating Interactive, Chatbot-based Learning Experiences
1. What is a Chatbot?
   a. Different Types of Chatbots
   b. Why Use Chatbots?
   c. Why Use Chatbots for Learning?
2. What is the Intent of Your Chatbot?
3. Choosing a Chatbot Platform
4. Creating Conversation Flows
   a. Media
   b. Text Heavy Information
   c. Interactivity
   d. Added Services
   e. Additional Tips
5. Case Study
6. Get in touch!
What is a Chatbot?

A chatbot is an automated, interactive program that can hold a conversation with a user, often helping answer their questions around a certain topic. They can often be found on websites, social media platforms, and instant messaging apps, amongst other places.

These are usually driven by a machine learning algorithm or with a simple logic-based framework, with the goal of automating simple tasks or delivering complex information. Most commonly used in the customer service industry, these “conversational agents” attempt to mimic written or human speech to simulate a conversation with a real person.
Different Types of Chatbots

Chatbots can vary vastly in terms of complexity, from simple button-based interfaces to ones capable of understanding naturally written text. The needs of the chatbot define its capabilities, and they usually fall in the spectrum between button-based interfaces and NLP (Natural Language Processing) capable chatbots. There are pros and cons to both approaches, and it entirely depends on the needs of the user, the nature of interaction, and the platform on which the chatbot will live on.

For a restaurant on social media, a simple button-based interface might suit their needs, and also help the users of the chatbot navigate quickly to get what they need. Since the needs of the user, and the offerings of the restaurant isn’t that complicated, the complexity is low. A chatbot for a manufacturing company would be a good example of interactions with higher complexity, as there are many more parameters at play. In this scenario, it could make more sense to use an NLP capable chatbot which can comprehend complex user requests to answer questions faster.
Why Use Chatbots?

Chatbots allow for the automation of simple conversations that usually require another person, and are useful in answering frequently asked questions. The barrier for entry to creating chatbots has of late become very low, and this has made it easy for anyone to develop them. The automation not only reduces the resources needed to interact with customers, but also enables much smarter connections with the prudent use of data.

For example, a restaurant can use a chatbot on their social media profiles to help customers to book a table and any other additional services. This is not only useful for the restaurant, but also for the customers as it make the booking experience easy and seamless.
Why Use Chatbots for Learning?

Chatbots provide a similar experience in the context of learning as well. They can be facilitators, or teachers, helping students plan their courses, help them access material, and remind them of events. This is especially relevant for online courses, where a chatbot can assist students through the duration of the course, and facilitate the learning experience.

As a part of steering a learning-oriented interaction with a user, a chatbot can be leveraged to present information in a more modular, bite-sized format, making the learning process smoother and more learner-friendly.
What is the Intent of Your Chatbot?

**Initial Scoping**
The first step in creating your chatbot is to first understand who it will be interacting with, what kind of content it will be handling, and where it will be deployed. These factors will define the capabilities of the chatbot, the tone of the content, and the nature of interaction.

Perhaps the first question you should ask yourself is, “Do I need a chatbot?”. It might be that the problem you are trying to solve may not require a chatbot, and may just need a change in communication strategy, or better information design for more effective communication.

**First Contextualise, then Strategise**
The next step is to understand your customer’s user behaviour to identify opportunity areas that your chatbot can address. If your users are finding it difficult to understand the information on your website, then the chatbot should be present on the website, helping them when they need assistance the most. Quantitative and qualitative data from the use of your platforms will show you where users are most likely to be comfortable spending time using the chatbot.

Not only will this will help you understand where the chatbot should be located, but also its ideal complexity as well as the any pain points that your users might be having while using it. You may not want to spend much time booking a table at a restaurant, but you might be happy with spending more time figuring out the right online course to learn from.

Remember, always keep the user’s needs above all!
Choosing a Chatbot Platform

Now that you have understood your users’ needs, you can get started on creating the chatbot. Before you get started on creating content and user flows for the chatbot, you must first select a platform to create your chatbot on.

While choosing a platform, take into account user behaviour and the required complexity of conversations. If your chatbot users prefer a fast and uncomplicated experience coupled with simple information or tasks, it might be ideal to use a button-based interface. Conversely, in the case of a more complex and layered information delivery along with users who would be willing to spend more time, a text input, NLP-based interaction could be more effective.

There are many existing platforms which provide the framework and back-end for chatbots, along with easy-to-use creation tools. Although these tools allow for the easy creation of chatbots, there will be a sacrifice of some control over certain aspects of design and functionality. Chatbot technology is still fairly nascent, and will see further development over the next couple of years.

When deploying chatbots to third-party websites or platforms that you don’t directly own, be well-informed of their policies to make sure you don’t encounter any surprises when using their services. For example, when Facebook tightened its regulations on privacy and data sharing, several chatbot platforms were barred from connecting to Facebook’s Messenger platform.

The privacy of the users of your chatbot is paramount, and it is important to ensure that the vendors you work with also share the same beliefs.

Some chatbot platforms, listed in increasing levels of complexity are: Chatfuel, Flow.ai, Dialogflow, IBM Watson, Tensorflow.
Creating Conversation Flows

Now that you have selected the type of chatbot and the ideal platform, it’s time to start creating user flows to define the conversations and experience users will have while interacting with your chatbot. These flows can vary depending on the subject matter and the time and complexity of conversations your target user will be comfortable with.

A good way to start is to visually map out the conversation in a flow chart format. Not only will this allow you to see all the content, but also spot gaps in conversation. A good way to start a conversation is to introduce the chatbot, whom it represents, and how it will be able to help the user. It may also be useful to define the rules of conversation, or orient the user to how they can most easily get what they want.

The next few slides will cover various elements you can add to your chatbot’s conversation flows.
Creating Conversation Flows

Media

Although chatbot interactions are usually text-based, adding pieces of rich media can help liven up a conversation and give the user more variety in the content they consume. Having infographics can also help shorten conversations by delivering more information through images rather than blocks of text. Videos and images can also help increase user engagement.
Creating Conversation Flows

Text Heavy Information

When delivering long pieces of text, make sure that you break it down into parts, and let the user control the pace of the conversation. Let the user respond to the pieces of text by asking them to say “Yes”, or “Okay”. Not only will this render large amounts of information more accessible, it will let the user have a sense of control over the conversation.

In scenarios where the user interacts with the chatbot using a button-based interface, it’s usually a good idea to give them a few answers to choose from. A button-based interface is easy to implement, and ensures predictable, quick, and easy interaction.
Interactivity

No one likes a one-sided conversation. To make the conversation more interesting, try incorporating elements of interactivity in the conversation flows. You can ask your users to answer Multiple Choice Questions, or ask them to write in their thoughts, tell them stories, or even have something as simple as asking them to use emojis instead of words. Small amounts of interactivity can significantly enrich the experience and go a long way in getting your users to return to your chatbot.
Creating Conversation Flows

Added Services

Since chatbots exist online, you can use the potential of the internet to give your chatbot superpowers!

Most chatbot platforms allow you to connect different kinds of services to the conversation flows. For example, you can give your chatbot the ability to answer with the help of GIFs, or even allow users to report issues or problems they're facing by sending a message directly through the chatbot instead of writing an email. This can make the customer support experience a lot smoother and enjoyable.

You can also make your chatbot accomplish more advanced tasks such as helping users navigate your service or keeping track of the user’s progress through your website. However, always remember that the user’s experience and privacy comes before functionality and features. Every feature that you add requires some information from your chatbot user, potentially compromising your user’s privacy. Always read up on the terms and conditions of the extra services you may add before deploying them to your chatbot.

### Send Email

Use this plugin to solicit user feedback or notifications, or export data from your chatbot. Note that you can't send emails to the bot's users with this plugin.

**Title**: Kaya Account Trouble

**Email Addresses**: kaya@humanitarian.academy

**Email Body**

```
Name: {{first name}} {{last name}}
Email: {{kaya issue email}}
Issue: {{kaya issue}}
```

---

**Show “typing...” for at least**

- 2 sec
- 20 sec

Thank you sending in your email, someone will get in touch with you shortly!

Is there anything else I can help you with today?

[ADD BUTTON (OPTIONAL)]
Creating Conversation Flows

Additional Tips

Always test your chatbot before releasing it to your users! Test it yourself, with others, and get as much feedback as possible. First impressions matter, and users may not give your chatbot a second chance.

Go through multiple rounds of creating, testing, and iterating before going live. Your user is using a chatbot to accomplish a task as quickly and effortlessly as possible. The extra functionality or features that you add should not get in the way of their ease of use. Ensure that they get to what they want as quickly as possible, while making sure that they have an enjoyable time while doing so. Build in multiple fail safes at various points of the flow to ensure that they don’t hit any conversation dead-ends.
The Facebook page for the Humanitarian Leadership Academy has about 550,000 followers, and the Academy wished to connect with them. The page receives many questions and queries everyday, and to help automate the process of answering them, they needed a bot. This bot would not only help answer questions, but also allow users to understand more about the Academy and their e-learning resource, Kaya.

The Facebook chat was created on the Chatfuel platform, and uses a button-based interface for users to navigate through flows of information. This bot can be accessed through their Facebook page, and has a wide variety of content. The chatbot has information on the Kaya courses as well as interactive course teasers to help users understand a course’s content.

The chatbot also helps users troubleshoot any technical difficulties they might have by helping users file technical support requests. The accessible and engaging nature of the chatbot makes it simple for users to perform administrative tasks such as signing up or getting technical support.

Apart from providing information about the courses on Kaya, the chatbot also helps recommend courses to users based on their preference. It also helps track courses the user has completed, and recommends additional ones based on their history.

Try using the Humanitarian Leadership Academy chatbot here!
Get in Touch!

Do get in touch with us, and let us know what you thought of this toolkit! We’d love to hear from you.

- info@humanitarian.academy
- hello@quicksand.co.in
- @AcademyHum
- @helloQS
- HumanitarianLeadershipAcademy.org/innovation
- Quicksand.co.in
- Humanitarian-Leadership-Academy
- Quicksand-Design-Studio
- HumanitarianLeadershipAcademy