

What do AI Customer Service Bots Do?

Why?

This lesson on creating and interacting with chatbots fosters critical thinking and problem-solving skills in students by immersing them in practical AI applications. It empowers students to explore real-world scenarios, understand the complexities of customer support, and enhances their communication and empathy skills. Moreover, it prepares them for the future job market, where AI and chatbots are increasingly integral to customer service and various industries.

Materials Needed

- Paper and writing utensils for students to use

Time needed

Approximately 30-45 minutes

Objectives

- Students will be able to collaborate in teams to design, implement, and test chatbot interactions, fostering teamwork and problem-solving skills.
- Students will be able to create effective chatbot responses for customer service and travel assistance scenarios, demonstrating their ability to communicate clearly and informatively.
- Students will be able to analyze and assess the quality and effectiveness of chatbot responses, identifying areas for improvement and refinement.

Key Concepts & Vocabulary

- **Chatbot:** A chatbot is a computer program or artificial intelligence system designed to simulate human conversation with users through text or voice interactions.
- **User Query:** A user query is a question, request, or input made by a user when interacting with a chatbot or other digital systems.
- **Scripted Response:** A scripted response is a pre-written message or dialogue that a chatbot uses to reply to specific user inputs or queries.

Lesson

1. Split the class into two groups, Group A and Group B. Each group will be creating a set of responses for a particular fictitious company.
 - a. Group A will be a travel agency. The bot will be a virtual travel assistant.
 - b. Group B will be a clothing store. The bot will be a customer service bot.
2. Describe how chatbots are designed to recognize specific wording from **user queries**, and then provide **scripted responses**.
3. Each group works together to make a list of responses to user questions.
 - a. They should anticipate what questions a user would ask, and work to come up with appropriate answers for those questions.

- b. For example, the travel assistant might get a request such as “How much are flights to a specific city?” The response should be something like “Let’s find you flights. What are your preferred dates?”
 - c. Tell groups that they can only respond with variations of the answers they specifically write down on a piece of paper. Encourage them to come up with at least 20 responses.
 - d. When they feel like they are ready for requests, bring the class back together.
4. Have the groups emulate the service bot for their companies, one at a time.
 - a. Start with either Group A or Group B being the service bot, and the other group will ask them questions to see what responses they get.
 - b. For example, Group A is the travel agency service bot. Group B will pretend to be customers asking questions of the travel bot.
 - c. Ask members of Group B to ask questions they think customers would ask the travel bot.
 - d. Encourage them to consider what they think would actually be asked.
 - e. Again, remind students in Group A that they can only respond with variations of responses they have written on a paper.
 - f. It may be likely that students will try to stump the other group by asking questions they’re not prepared for. This isn’t the goal of the simulation, but if they do get stumped, it would be an opportunity to discuss why it is difficult to program these bots.
 - g. Once one group has gone through the simulation, switch and have the other group pretend to be the bot. For example, if Group A was the bot before, now Group B should be the bot and Group A should ask questions.
5. After both groups have performed both roles, bring them back together for discussion.

Discussion Questions

- How well do you think the chatbot responses addressed the user queries and needs? Were there instances where the responses could have been improved?
- Were there any common challenges that both the travel assistant and customer service chatbots faced during the activity?
- Did you notice any similarities or overlapping skills required for both scenarios? Were there any notable differences in the types of questions or answers?
- In your experience, which type of chatbot scenario (customer service or travel assistance) seemed to have a higher level of complexity or required more nuanced responses? Why?
- Were there any surprises or unexpected user queries that you encountered during the activity? How did you handle these situations?
- Discuss the role of empathy in providing effective customer support and travel assistance through chatbots. How can chatbots effectively convey empathy to users? (Empathy = seeing from the user's perspective)
- In your opinion, what are some of the key takeaways from this activity in terms of

designing and using chatbots for customer support and travel assistance? How can these lessons be applied in real-world situations?

Supplemental Activity Ideas

- **Chatbot Improvement Challenge:** Have students work in pairs or groups to analyze the chatbot interactions and come up with ways to improve the responses. They can then refine the chatbot's response set and test the improved version.
- **Chatbot Comparison:** Compare different existing service chatbots and have students evaluate their ease of use, customization options, and user-friendliness. Students search for sites that have customer service bots and spend some time asking them questions to see what sorts of responses they give. They can present their findings in a comparative analysis.
- **Ethical Chatbot Design:** Discuss the ethical considerations in chatbot design, such as privacy, bias, and transparency. Have students explore these topics and propose ethical guidelines for chatbot development.

Sources to Learn More

- **Chatbot Building Applications** - Where you could program your own customer service bot: <https://blog.hubspot.com/service/customer-service-bots>
- How you should be using chatbots if you are a business: <https://blog.hubspot.com/service/customer-service-chatbots>