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What are Chatbots

A software application designed to simulate conversation with human users, especially over the internet. It utilizes techniques from the field of natural language processing (NLP) and sometimes machine learning (ML) to understand and respond to user queries. Chatbots can handle complex, nuanced, and context-dependent conversations.

[The First Chatbot Eliza](#)

What are Agents

An agent can be thought of as a chatbot that has a specific skill set.

Whilst Agents can be deployed standalone, they're more useful when allowed to communicate with each other and given a task to autonomously accomplish

[Example of an multiagent tool](#)

Opportunities

Digital knowledge is moving from documents to dialogues

Knowledge is no longer only embedded in documents, spreadsheets, and text. It is now embedded in conversation and can be served up dynamically through that same medium.

[Microsoft New Future of Work 2023](#)

Chatbots in Teaching and Learning

- Homework and study assistance
- Personalized learning experience
- Skill development
- Virtual teaching assistants
- Course assistants
- Advising

Value

Customized for specific teaching contexts and for different domains
Incorporate validated data
Reduce bias
Personalize teaching and learning

Issues and Limitations

Hallucinations and Responsibility

[Air Canada found liable for chatbot's bad advice on plane tickets. CBC News.](#)

Student privacy

[OpenAI's Custom Chatbots Are Leaking Their Secrets. Wired](#)

Examples of Customized Chatbots

- [Tony Bot](#)
- [AI Tutor Pro](#)
- [Ask Cali: Faculty of Science Advising Bot](#)

Course Level Customized Chatbot Stanford

Chatbots can assist students in swiftly accessing information about their courses, reducing the workload for teaching staff. They act as an initial point of contact for queries about deadlines, assignments, and study materials, offering support 24/7. This efficiency helps educators avoid repetitive inquiries and provides instant responses to students.

[link](#)

Tutoring: Khanmigo

Khan Academy launched Khanmigo, a GPT-4 powered learning guide, to select educators and students in March.

Unlike ChatGPT, Khanmigo doesn't do school work for students but instead acts as a tutor and guide to help them learn, says Sal Khan, founder of the nonprofit learning resource Khan Academy

[link](#)

Activity 1: Try a Custom Bot

Try AI Tutor pro or the Tony chatbot. What ideas do these give you for your own context? What could these mean for teaching? Course design?

- [Tony Bot](#)
- [AI Tutor Pro](#)

Create Customized Chatbots

GPTs

GPTs, or Generative Pre-trained Transformers, are customizable AI models tailored for specific applications to facilitate tasks in various settings, such as work or home. They are designed to streamline processes such as teaching, learning, or creating by generating relevant text or content based on the instructions given. These models can be easily created and customized without the need for coding, allowing for personal, internal, or broad usage.

[Link](#)

[Consensus](#)
[Tutor.me](#)

POE

What is POE: AI chat, with GPT-4, Claude 3, Gemini, DALL-E 3, SDXL

[link](#)

Activity 2: Creating a Chatbot

1. In your group create a Chatbot related to your teaching context
2. Make sure to use effective prompting
3. Bonus: Create a Chatbot using a different model

Instructions

1. Sign into POE: First, log into your POE (Platform for Online Engagement) account.
2. Create Bot: Once logged in, look for the option to "Create Bot" and click on it. This will initiate the bot creation process.
3. Choose a Handle: You will be prompted to create a short, descriptive handle for your bot. This handle should be easy to remember and give an idea of what your bot does.

4. **Select Base Bot:** In this step, you'll choose the base bot for your creation. Select "Use Prompt" and then choose either "GPT" or "Claude" as the foundation for your bot.
5. **Add a Structured Prompt:** Incorporate a structured prompt for your bot. You can refer to the "Best Practice for Prompts" link provided in POE for guidance on how to do this effectively.
6. **Optional Document Upload:** If you want, you can add a document to your bot. However, remember to consider privacy concerns when uploading any document.
7. **Set a Greeting Message:** Create a greeting message for users interacting with your bot. It's often effective to use a question in the greeting to encourage user responses.
8. **Create the Bot:** After completing all the steps, click on "Create Bot" to finalize the creation of your new bot.
9. **Share Your Bot:** Once your bot is created, you will receive a link to it. You can copy this link and share it with others so they can interact with your bot.

[Screencast](#)

Sample Prompt

Stuckbot

You are a friendly, supportive chatbot designed to help undergraduates talk through the experience of getting stuck when learning programming and data science. Not only are you an expert in applied mathematics, data science, and programming, but you are particularly skilled in supporting student learning by helping them work through getting stuck and reflecting on what they learn from the experience.

Course Design Bot

You are an expert course designer with 20 years of experience developing university courses. You excel at ensuring that your designs are effective and successful. Your task is to assist me in designing my course-level learning objectives and goals. Start by asking me three questions, one at a time, to understand my course:

1. "Tell me three topics for your course."
2. "What is a big question for the course?" Use the literature on big questions to frame this.
3. "What level is your course?"

Once you have asked these questions one by one, proceed to create a set of 10 course-level learning outcomes. These outcomes should encompass what learners will need to **do**, **know**, and **value** by the end of the course.

After creating the learning outcomes, ask me for suggestions to refine each objective or to add new ones.

Following this, use the backward design process created by Dee Fink to develop a backward design table. The activities included in the table should be learner-centered and rigorous. Once you have completed this, ask for any changes or feedback.

Please begin by asking the first question: "Tell me three topics for your course."

Resources

Bruff, D. (n.d.). Course Level GPTS. Retrieved from <https://derekbruff.org/?p=417>

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