



Getting Familiar with ChatGPT

This chapter enables you to set up your ChatGPT account and start using the service. It will also dwell on how to interact with the web UI, how to organize chats by topic, and how to structure the conversation.

By the end of this chapter, you will have a better understanding of what ChatGPT is, how it works, and how you can efficiently organize it as a daily assistant. You will also learn about its main capabilities and limitations so that you are aware of how to use it responsibly.

In this chapter, we will cover the following topics:

Setting up a ChatGPT account

Familiarizing yourself with the UI

Organizing chats

Setting up a ChatGPT account

To start using ChatGPT, you first need to create an OpenAI account. Follow the instructions here:

1. Navigate to the OpenAI website here: <https://openai.com>.
2. Scroll down and click on **ChatGPT** under the **FEATURED** menu as shown here:

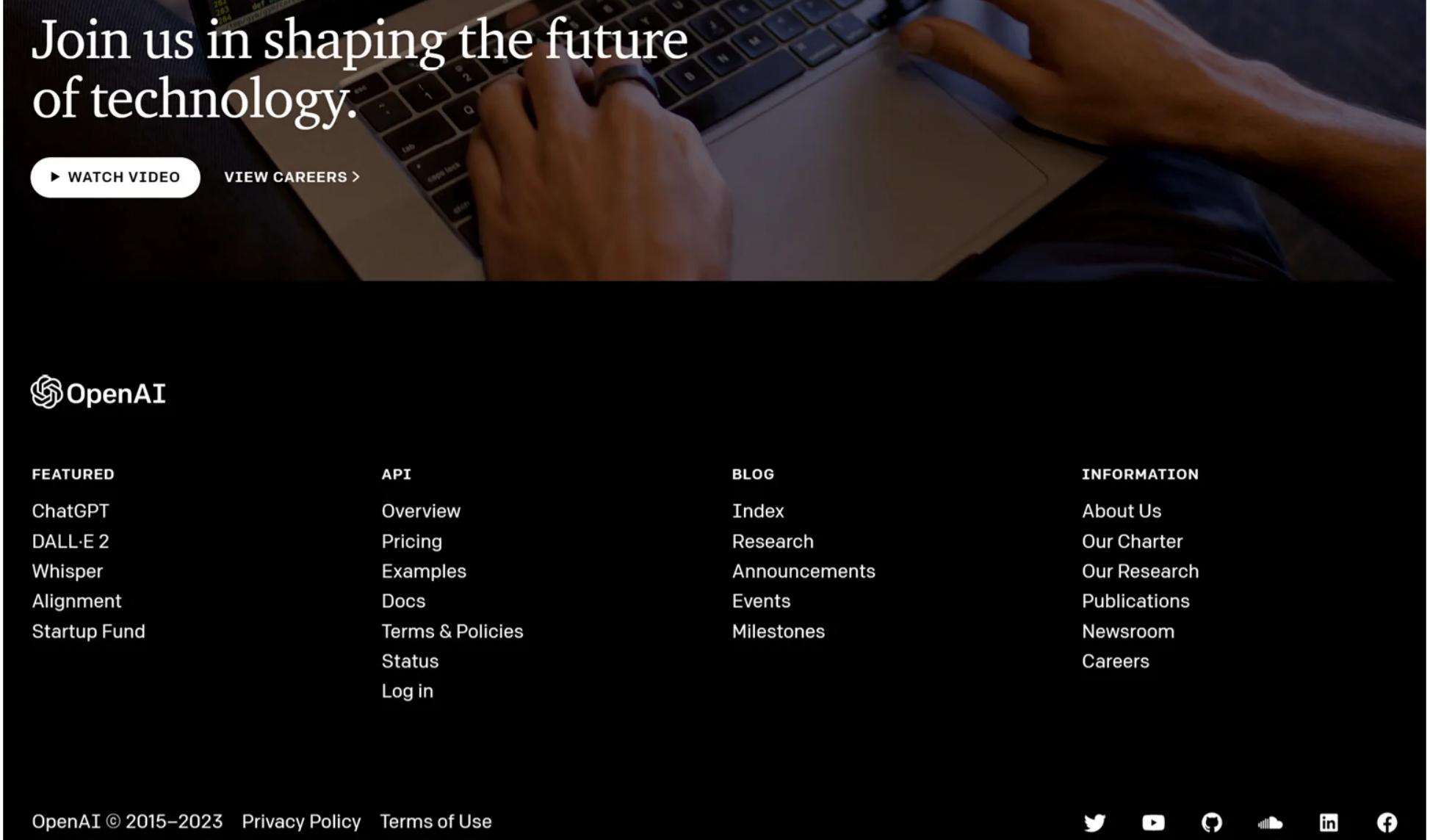


Figure 3.1 – OpenAI landing page

3. Then you need to click on TRY CHATGPT:

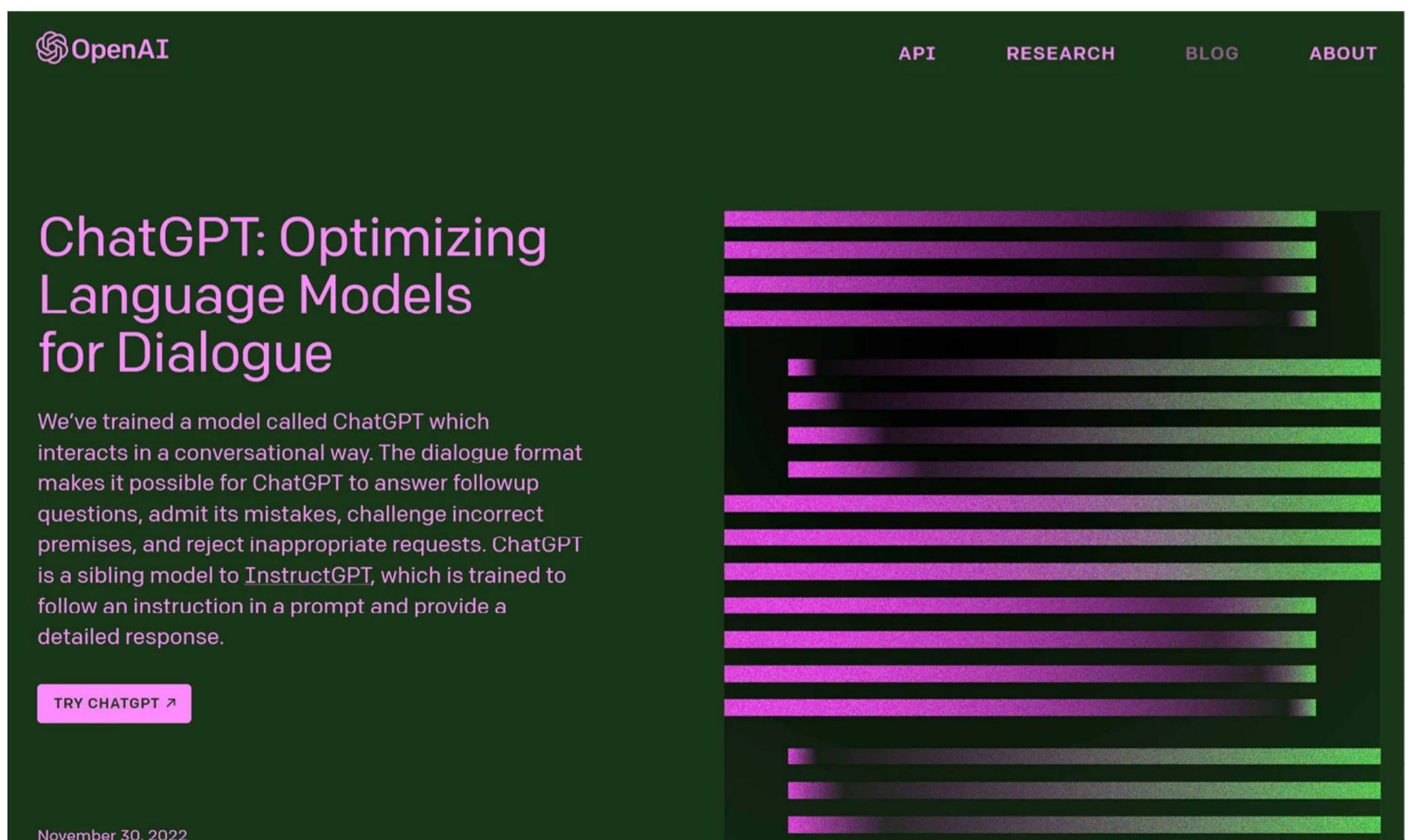


Figure 3.2 – ChatGPT landing page

4. On the next page, you need to fill out the form to sign up for an OpenAI account. This is the same account you can use to access the OpenAI

Playground and generate your API keys.

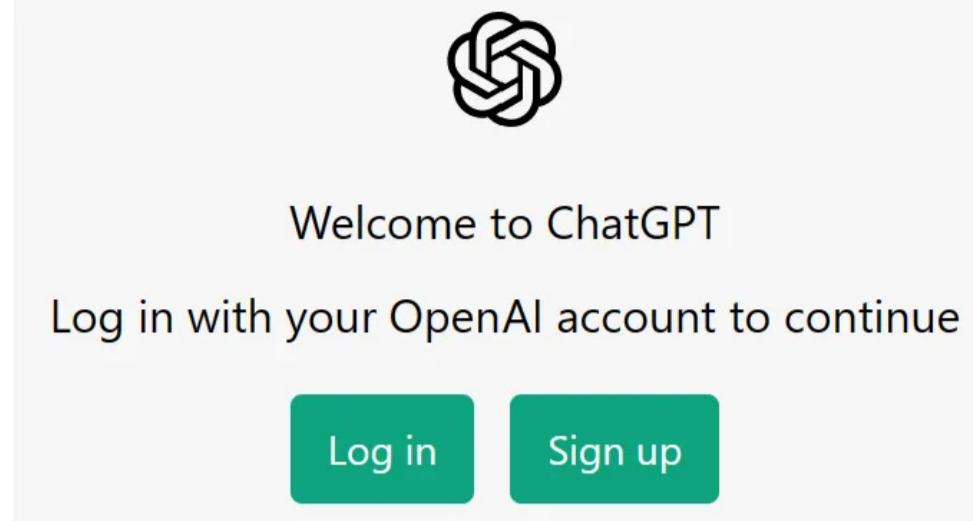


Figure 3.3 – ChatGPT landing page with Log in and Sign up options

5. Now you can start using the ChatGPT web app. Once you have found the ChatGPT web app, click on it to launch it. You will be able to interact with ChatGPT and perform various natural language processing tasks directly in your web browser.

The image shows the ChatGPT web interface. On the left is a dark sidebar with a "New chat" button at the top. Below it are several links: "Upgrade to Plus" (with a "NEW" badge), "Dark mode", "OpenAI Discord", "Updates & FAQ", and "Log out". The main area has a large "ChatGPT" title. Below it are three sections: "Examples" (with a sun icon), "Capabilities" (with a lightning bolt icon), and "Limitations" (with a warning triangle icon). Each section contains three examples. At the bottom is a text input field with a send arrow icon and a footer note about the Jan 30 Version being a free research preview.

Figure 3.4 – ChatGPT web interface

Great! Now you can start using ChatGPT. But you also need to know what the app is like. Let us learn about it next.

Familiarizing yourself with the UI

The web interface of ChatGPT is pretty intuitive to use. Before starting to write your prompts, you can easily try some examples provided by the service:

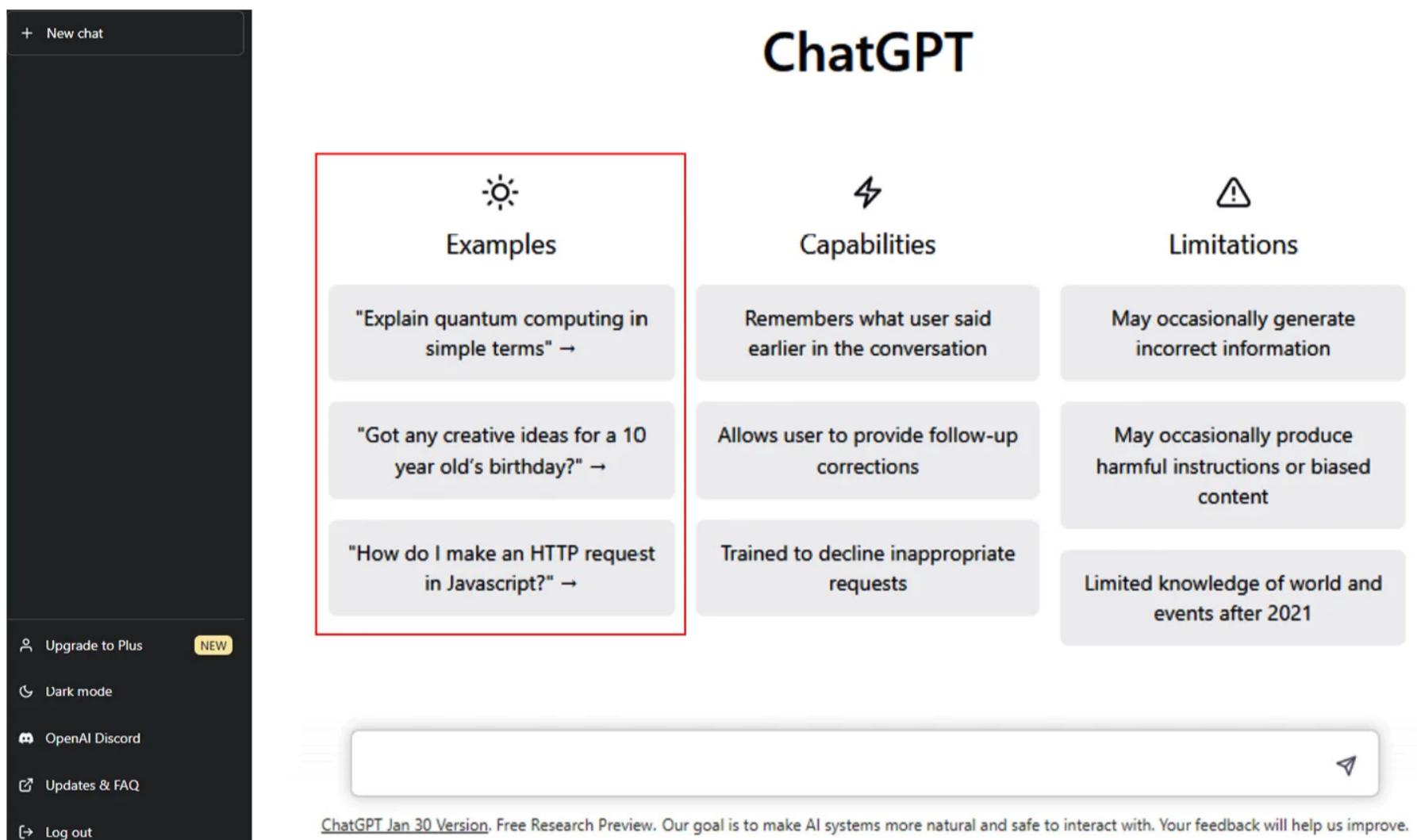


Figure 3.5 – Sample prompts provided by ChatGPT

Then, you are also instructed about the main capabilities of ChatGPT:

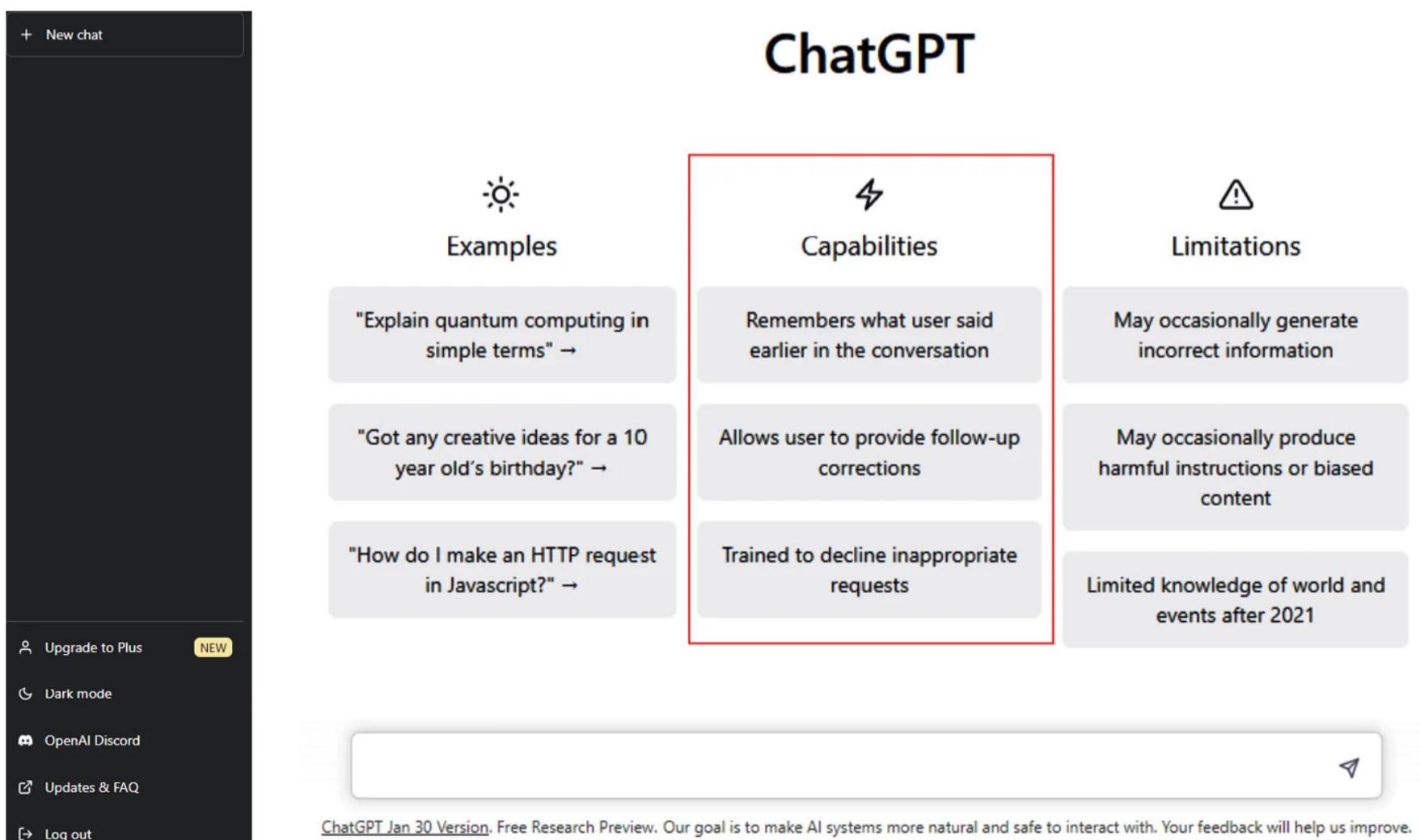


Figure 3.6 – Capabilities of ChatGPT

Among the capabilities, it is highlighted how ChatGPT is capable of maintaining memory throughout the conversation. In the previous chapter, we went deeper into the math behind GPT and saw how important the memory retention component is: now you can appreciate this mathematical complexity in action.

This capability of ChatGPT is also an example of **few-shot learning**, which we are going to learn more about in the following chapters.

Note

ChatGPT can maintain the memory of the previous context thanks to its few-shot learning capability. Few-shot learning is a type of machine learning technique that enables models to learn new concepts or tasks with very limited labeled data and has become an important area of research in the field of artificial intelligence.

Thanks to those features like memory retention and few-shot learning, ChatGPT allows the user to provide follow-ups or corrections during the conversation, without the need to provide the context once again.

Here, there is an example of how you can make corrections to your prompts in a conversation with ChatGPT:

V

explain in two sentences what is deep reinforcement learning



Deep Reinforcement Learning is a subfield of machine learning that combines reinforcement learning and deep learning techniques to enable agents to make decisions in complex and dynamic environments. It involves training artificial agents through trial-and-error using a reward-based system to maximize a cumulative reward signal. thumb up thumb down

V

what do you mean with cumulative reward signal?

Save & Submit

Cancel



The cumulative reward signal in deep reinforcement learning refers to the sum of rewards an agent receives for its actions in an environment over a certain period of time. This reward signal serves as a feedback mechanism that guides the agent's learning process and helps it to determine the best actions to take in a given state to maximize the total reward over time. The goal of the agent is to learn a policy that maps states to actions in a way that maximizes the cumulative reward signal. thumb up thumb down

⟳ Regenerate response



ChatGPT Jan 30 Version. Free Research Preview. Our goal is to make AI systems more natural and safe to interact with. Your feedback will help us improve.

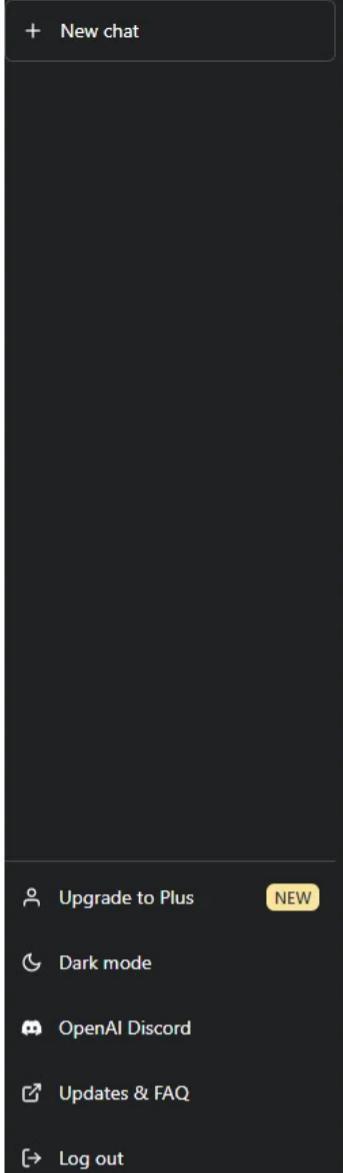
Figure 3.7 – An example of follow-up comments and prompt correction with ChatGPT

Finally, the model also alerts the user that, among its capabilities, it is also trained to decline inappropriate requests that might be harmful or offensive.

The last set of information provided on its home page is related to ChatGPT limitations:

+ New chat

ChatGPT



Examples	Capabilities	Limitations
"Explain quantum computing in simple terms" →	Remembers what user said earlier in the conversation	May occasionally generate incorrect information
"Got any creative ideas for a 10 year old's birthday?" →	Allows user to provide follow-up corrections	May occasionally produce harmful instructions or biased content
"How do I make an HTTP request in Javascript?" →	Trained to decline inappropriate requests	Limited knowledge of world and events after 2021

ChatGPT Jan 30 Version. Free Research Preview. Our goal is to make AI systems more natural and safe to interact with. Your feedback will help us improve.

Figure 3.8 – ChatGPT limitations

These elements are an important reminder of the fact that, today, AI tools still need to be supervised by a human. In fact, in addition to the missing information between 2021 and today, ChatGPT might also provide inaccurate or even wrong information. That is the reason why it still needs supervision.

An interesting phenomenon worth mentioning is that of *hallucination*. Hallucination refers to the occurrence where an AI model generates fake or imagined data that resembles real-world data but is not actually based on any real observations. Here is an example of this:

V

What is the world record for crossing the English Channel entirely on foot?



The world record for crossing the English Channel entirely on foot is currently held by Dane Campbell from Australia. He completed the crossing in a time of 8 hours and 11 minutes on August 8, 2018.



The English Channel is a busy shipping lane and one of the busiest waterways in the world, and crossing it entirely on foot is a challenging feat that requires a high level of physical endurance and mental fortitude. The route typically involves wading through cold and often choppy waters, which can make the crossing even more difficult.

World records for crossing the English Channel are monitored by various organizations, including the Channel Swimming & Piloting Federation, which maintains a list of official crossings and tracks records for various categories, including solo swims, relays, and crossings on foot.

Figure 3.9 – An example of ChatGPT hallucination

The question in *Figure 3.9* was originally developed by Douglas Hofstadter and David Bender as a way to induce hallucinatory responses in ChatGPT!

To prevent hallucinations, some good practices should be kept in mind:

Be specific and clear: Make sure your prompt is well-defined and clearly states what you are looking to achieve. This will help the model generate more focused and relevant responses. A prompt such as *Tell me about the world* would probably not generate great results.

Provide sufficient context: The more context you can provide, the better the model will be able to understand what you are looking for and generate a response that is relevant to your needs.

Avoid ambiguity: Avoid using vague or ambiguous terms or phrases in your prompt, as this can make it difficult for the model to understand what you are looking for.

Use concise language: Keep your prompts as concise as possible, while still providing enough information for the model to generate a response. This will help ensure that the model generates focused and concise responses.

Be mindful of the training data: ChatGPT has been trained on a large corpus of text, and it may generate responses that are biased or inaccurate based on the patterns in that data. Be mindful of this and consider adjusting your

prompts if you suspect that the model is generating responses that are not appropriate or accurate.

As we will see in the next chapter, these prompt design considerations are not only useful to prevent hallucinations, but also to get the highest value and utility from your interactions with ChatGPT.

With this behind us, let us now see how chats are managed.

Organizing chats

A time-saving feature that ChatGPT exhibits is the possibility of having multiple open threads or chats. In fact, when you start writing your first prompts, ChatGPT will automatically initiate a new chat and name it with a relevant title. Have a look at the top-left corner of the following screenshot:

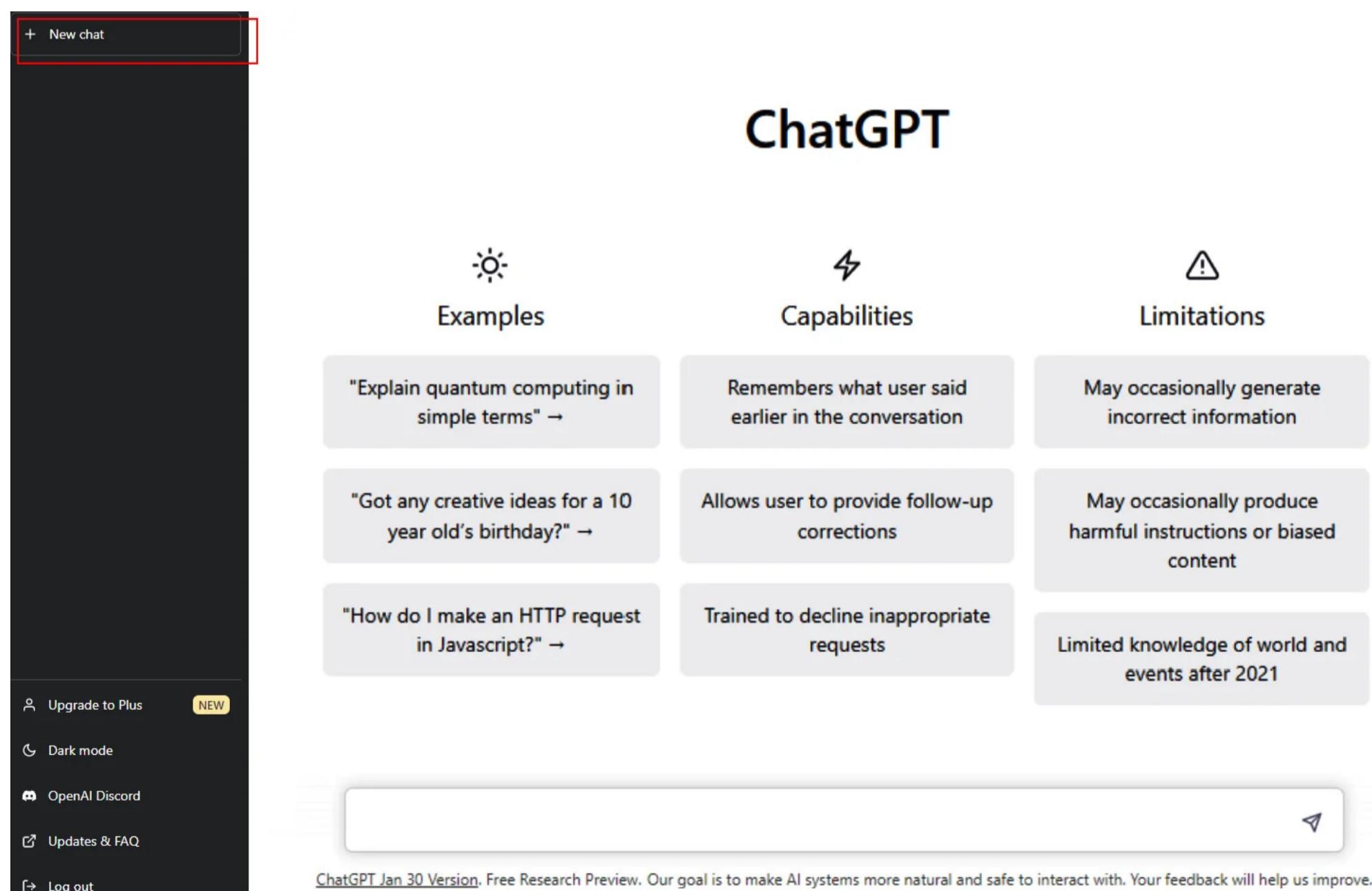


Figure 3.10 – Creating a new chat in ChatGPT

You can always decide to start new chats from scratch, however, you might want to continue a conversation you started some days ago.

Imagine you have asked ChatGPT to explain the concept of linear regression, and then started a conversation with several follow-ups. Here is how it shows up:

The screenshot shows a ChatGPT interface with a sidebar on the left containing various conversation options. One option, 'Linear Regression Concept', is highlighted with a red border. The main area shows a conversation where the user asks for an introduction to Linear Regression, and ChatGPT provides a detailed explanation. Below this, the user asks for more elaboration on the linear relationship between variables, and ChatGPT is shown generating a response.

+ New chat

Potential bias in GPT models

JS console for terminal.

Financial Report Generation.

Linear Regression Concept

Snarky Chatbot Answers.

Job Interview Simulation.

Data Analyst Interview Q&A

Mountains and Snow.

Clear conversations

Upgrade to Plus NEW

Dark mode

Updates & FAQ

Log out

V give me an introduction about Linear Regression. Assume I have no previous knowledge about that. Describe the concept in simple words using relevant examples.

Linear regression is a statistical method used to model the relationship between two variables, where one variable is called the independent variable and the other is called the dependent variable. The method assumes that there is a linear relationship between the two variables, meaning that the change in the independent variable is directly proportional to the change in the dependent variable.

For example, let's say we want to predict a person's weight based on their height. In this case, height is the independent variable and weight is the dependent variable. If we assume a linear relationship between the two, we can use linear regression to create a model that predicts a person's weight based on their height.

The model will be a line that represents the best fit for the data, with the slope of the line representing the strength of the relationship between the two variables. We can use this model to make predictions about a person's weight based on their height, or to understand the relationship between the two variables in more detail.

V please elaborate the concept of linear relationship between variables?

Regenerate response

ChatGPT Feb 13 Version. Free Research Preview. Our goal is to make AI systems more natural and safe to interact with. Your feedback will help us improve.

Figure 3.11 – Example of an existing chat with context

At that point, within that chat, ChatGPT already has context, hence you can continue your conversation without the need to repeat concepts. Have a look here:

V

what is L2 regularization?



L2 regularization, also known as Ridge regularization, is a technique used in machine learning to add a penalty term to the cost function in order to prevent overfitting and improve the generalization performance of the model.



In L2 regularization, the penalty term is the sum of the squares of the coefficients, summed over all features. By adding this penalty term to the cost function, the model is encouraged to have smaller coefficients for each feature, which helps to prevent overfitting by reducing the sensitivity of the model to the noise in the data.

L2 regularization is particularly useful when dealing with data sets that have a large number of features, or when the features are highly correlated with each other. By using L2 regularization, the model can identify and select the most important features while reducing the impact of the less important or redundant features, leading to a more robust and accurate model.

It's important to note that L2 regularization is a form of regularization that can be used in conjunction with other regularization techniques, such as L1 regularization, to improve the performance of the model.

V

elaborate OLS in a couple of sentences



OLS (Ordinary Least Squares) is a method used in linear regression to estimate the parameters of the regression model by minimizing the sum of the squared differences between the observed dependent variable values and the predicted values from the model. It aims to find the line that best fits the data points by adjusting the coefficients to minimize the overall prediction error, resulting in a model that provides the best linear approximation to the relationship between the dependent and independent variables.



Figure 3.12 – An example of follow-up questions within the same context

With this, we have learned how ChatGPT chats are maintained and organized, which makes it easy to refer to older chats.

Summary

In this chapter, we went through the concrete steps to start using ChatGPT with our account. We also dwelled on its capabilities and limitations, with some considerations about the risk of hallucination and how to avoid this via prompt design. We also saw how chats are presented in the app and how easy it is to refer to old ones.

In the next chapter, we will focus more on prompt design and engineering in order to get the highest value from your conversations with ChatGPT.

References

<https://openai.com/blog/chatgpt/>

<https://www.sify.com/ai-analytics/the-hilarious-and-horrifying-hallucinations-of-ai/>

<https://www.datanami.com/2023/01/17/hallucinations-plagiarism-and-chatgpt/>

[Previous Chapter](#)

[Next Chapter](#)