

Creating a Chat by Passing Context

20 min

So far we have initiated chat completions with the model, presenting a new user prompt in each interaction. But what if we want the model to retain context from prior discussions to imitate a full real-world conversation?

We can convey historical context to the model by including our previous messages and responses in subsequent prompts. This technique is particularly beneficial when we want the model to build upon or refer back to information provided in earlier points of the conversation.

Passing the conversation context helps us not repeat portions of the conversation to re-train the model. This concept is akin to how ChatGPT works. To the user, there is an assumption that context will persist in the prompt as the conversation continues. Under the hood, the entire conversation context is essentially resubmitted with each new prompt submission.

Let's look at an example of how to provide this historical context. Imagine we still want our model to suggest non-Caribbean destinations when prompted, and we stored our previous user and assistant message pairs in a variable called `message_data`:

```
message_data = [  
  {  
    "role": "system",  
    "content": "You are a friendly travel guide excited to help users travel the Caribbean. Your responses should only include destinations that are in the Caribbean"  
  },  
  {  
    "role": "user",  
    "content": "Suggest a destination suitable for a family with toddlers."  
  },  
  {  
    "role": "assistant",  
    "content": "Sure! Consider visiting Aruba for a family vacation. It offers beautiful beaches, family-friendly resorts, and attractions like the Butterfly Farm and Arikok National Park that kids would enjoy."  
  },  
  {  
    "role": "user",  
    "content": "We're looking for a Mediterranean destination with beaches. Any suggestions?"  
  },  
  {  
    "role": "assistant",  
    "content": "While I specialize in Caribbean destinations, I am familiar with a few Mediterranean destinations with great beaches. Majorca for instance is right off the coast of Spain and has beautiful, pristine beaches."  
  }  
]
```

We will append our new "user" prompt to the `message_data` list and pass the list to the `messages` parameter in the chat completion method. This will pass on the previous conversational data:

```

message_data.append(
{
    "role": "user",
    "content": "Give me some destinations in Canada to travel to for good snowboarding."
})

response= client.chat.completions.create(
    model="gpt-3.5-turbo",
    messages=message_data
)

first_reply = response.choices[0].message.content)

```

Output (Model Response):

As a travel guide focused on the Caribbean, I can't provide specific information about Canadian destinations for snowboarding. However, some popular destinations in Canada for snowboarding include Whistler Blackcomb in British Columbia, Banff National Park in Alberta, and Mont Tremblant in Quebec. These locations are renowned for their excellent snowboarding terrain and facilities. I recommend researching these destinations further to find the one that suits you best.

We can now take the newly generated reply and send it back to the model as an "assistant" message to continue the conversation:

```

message_data.append(
{
    "role": "assistant",
    "content": first_reply
}
)

message_data.append(
{
    "role": "user",
    "content": "I am only interested in western-most parts of Canada."
}
)

second_response = client.chat.completions.create(
    model="gpt-3.5-turbo",
    messages=message_data,
)

second_reply = second_response.choices[0].message.content

```

Output (Model Response):

If you're specifically looking for snowboarding destinations in the westernmost parts of Canada, here are a few suggestions:

1. Whistler, British Columbia: As mentioned earlier, Whistler is renowned for its world-class slopes and is consistently ranked among the top snowboarding destinations worldwide.

2. Cypress Mountain, British Columbia: Located just north of Vancouver, Cypress Mountain hosted events during the 2010 Winter Olympics. It offers a range of terrain suitable for all levels, including panoramic views of the city and the ocean.

Things to keep in mind when providing conversational context:

- **Token limits:** The more contextual information we provide in the prompt, the closer we'll be to hitting the model's token limit. While token limits are increasing with every new model, we may need to eventually truncate or rephrase some of the included historical data to make sure the prompt stays within the limit.
- **Relevance:** We want to make sure we provide historical responses that are relevant to the current conversation we are having. For example, we may not want to include responses from a conversation about recommendations for classic novels in a new conversation about the history of quantum physics.

Instructions

1. Checkpoint 1 Passed

1.

To support passing the chat context, the list variable `saved_messages` has been defined and initialized to the first prompt.

There is also a helper function `process()` that takes the chat response as an argument and does the following:

- Outputs the content
- Returns a dictionary with the "role" and "content" from the chat response.

You will use `process()` to add the chat responses to the `saved_messages` list.

The first chat completion is already set up, so when you are ready, run the code.

2. Checkpoint 2 Passed

2.

Now you will want to add the assistant message from response to the `saved_messages` list. This is where you will use the `process()` helper function.

Pass the chat completion response to the `process()` function and append the return value to `saved_messages`.

When you run the code, the message content should be output in the terminal.

Stuck? Get extra guidance

3. Checkpoint 3 Passed

3.

Now append a new user prompt dictionary to `saved_messages` to continue the chat.

The output is potentially a list of ideas so one option is to write a prompt to explain one of the ideas. Since the previous chat is being passed, you can simply reference the number of the item in the list.

Prompt example: "Tell me more about item 2"

Stuck? Get extra guidance

4. Checkpoint 4 Passed

4.

With the new user prompt in `saved_messages`, perform another chat completion using `saved_messages` and pass the response to `process()` to output the formatted chat reply.

The output should be a continuation of the conversation since you sent the context along with your new prompt.

Extra Guidance

Use the following syntax:

```
response = client.chat.completions.create(  
    model=MODEL_STRING,  
    messages=LIST_VARIABLE  
)
```

```
LIST_VARIABLE.append(process(response))
```

script.py

```
from openai import OpenAI
```

```
client = OpenAI()
```

```
def process(response):
```

```
    message = response.choices[0].message
```

```
    print(message.content, "\n")
```

```
    return {
```

```
        "role": message.role,
```

```
        "content": message.content
```

```
    }
```

```
saved_messages = [{
```

```
    "role": "user",
```

```
"content": "Output a list of social media marketing strategies."
}]
```

```
response = client.chat.completions.create(
    model="gpt-3.5-turbo",
    messages=saved_messages
)
```

Your code below:

```
saved_messages.append(process(response));
```

```
saved_messages.append({
    "role": "user",
    "content": "Output the instructions for item 5."
});
```

```
response = client.chat.completions.create(
    model="gpt-3.5-turbo",
    messages=saved_messages
);
```

```
saved_messages.append(process(response));
```

Response:

1. Content creation and curation: Create compelling and shareable content that engages your target audience. Curate relevant and valuable content from other sources to supplement your own.
2. Influencer partnerships: Collaborate with popular social media influencers within your industry to reach a larger audience and gain credibility.
3. Hashtag campaigns: Launch a campaign centered around a specific hashtag to encourage user-generated content and increase brand visibility.

4. Contests and giveaways: Organize social media competitions or giveaways to engage and reward your followers, encouraging them to share your content and promote your brand.
5. Paid advertising: Utilize paid advertising options on social media platforms to target specific audiences and increase brand exposure.
6. Social media monitoring and listening: Use tools to monitor social media platforms for mentions of your brand or related keywords. Engage with users, respond to queries, and address customer concerns promptly and professionally.
7. Collaborative content: Connect with complementary businesses and industry experts to create collaborative content that is mutually beneficial for both parties.
8. User-generated content: Encourage your followers to create and share content featuring your brand, products, or services. This not only increases user engagement but also acts as social proof for potential customers.
9. Live streaming: Host live videos or webinars to provide real-time content and interact with your audience directly.
10. Influencer takeovers: Allow influencers to take over your social media accounts for a limited time to create unique and engaging content from their perspective.
11. Social media partnerships: Collaborate with other brands or organizations to co-create and promote content, contests, or events that align with common goals.
12. Employee advocacy: Encourage your employees to promote your brand on their personal social media accounts, amplifying your reach and building trust.
13. Social media listening: Monitor conversations and trends on social media platforms to gain insights into customer preferences, pain points, and emerging topics.
14. Social media influencers affiliate programs: Create affiliate programs where influencers can earn a commission for driving sales through their unique referral links.
15. Instagram stories and Snapchat geofilters: Utilize ephemeral content platforms like Instagram stories and Snapchat to provide behind-the-scenes glimpses, exclusive offers, and promotions.

16. Strategic partnerships with social media platforms: Collaborate with social media platforms to leverage their algorithms and advertising options for maximum visibility.
17. Customer testimonials and reviews: Encourage your satisfied customers to leave positive reviews and testimonials on social media platforms, showcasing the value and credibility of your brand.
18. Social media analytics and tracking: Regularly monitor and analyze the performance of your social media campaigns to identify areas for improvement and optimize your strategies.
19. Social media customer service: Provide prompt and personalized customer service on social media platforms to build strong relationships with your audience and resolve any issues effectively.
20. Influencer-run social media contests: Partner with influencers to run social media contests that require participants to follow your brand and engage with your content, increasing brand awareness and engagement.

Instructions for item 5: Paid advertising

1. Set clear objectives: Determine your goals for the paid advertising campaign. Are you looking to increase brand awareness, drive website traffic, or generate leads? Clearly define your objectives to guide your advertising strategy.
2. Choose the right platform: Identify the social media platforms that align with your target audience and business objectives. Popular options include Facebook, Instagram, Twitter, LinkedIn, and Pinterest. Each platform offers unique targeting options and ad formats, so choose the one(s) that best fit your goals.
3. Define your target audience: Narrow down your target audience based on demographics, interests, behaviors, and other relevant factors. This will help you reach the right people with your ads and maximize their effectiveness.
4. Set a budget: Determine your budget for the paid advertising campaign. Allocate funds based on your objectives and the potential reach of your target audience. Consider both the cost per click (CPC) and the overall campaign duration.
5. Design compelling ad creatives: Create visually appealing and attention-grabbing ad creatives that align with your brand identity. Use captivating headlines, engaging images/videos, and clear call-to-actions (CTAs) to entice users to click and take desired actions.

6. Craft persuasive ad copy: Write compelling ad copy that communicates your value proposition and highlights the benefits of your products/services. Keep it concise, clear, and persuasive to encourage user engagement.

7. Set up ad targeting: Utilize the targeting options provided by the social media platform to narrow down your audience. Select relevant demographics, interests, locations, and behaviors that align with your target market.

8. Optimize bidding strategy: Select the appropriate bidding strategy based on your campaign objectives. Options may include cost per click (CPC), cost per thousand impressions (CPM), or cost per action (CPA). Monitor the performance of your ads regularly and adjust bidding accordingly to maximize ROI.

9. Track and measure results: Implement tracking pixels or UTM parameters to accurately measure the performance of your paid advertising campaigns. Use analytics tools provided by the social media platform and other third-party tools to monitor key metrics, such as click-through rates (CTR), conversion rates, and return on ad spend (ROAS).

10. Adjust and optimize: Based on the performance data, make adjustments to your ad creatives, targeting, bidding, or other elements as needed. Continuously monitor and optimize your campaigns to improve results and drive better return on investment (ROI).