Generative AI and Academic Writing Tasks

What is ChatGPT?

Launched by OpenAI in 2022, ChatGPT is an artificial intelligence (AI) tool that can respond to requests and complete a wide range of tasks. Like other generative AI models, ChatGPT has been trained on extensive amounts of information from the internet. However, ChatGPT is unique in that its exposure to both supervised learning and Reinforcement Learning through Human Feedback allows the chatbot to engage with users more conversationally (Ortiz, 2023). According to OpenAI (2022), "the dialogue format makes it possible for ChatGPT to answer follow-up questions, admit its mistakes, challenge incorrect premises, and reject inappropriate requests."

Concerns in Academic Settings

Over the last year, students have discovered Generative AI's usefulness when approaching writing assignments. However, educators have raised significant concerns regarding Generative AI's impact on student learning and enforcing academic integrity. With its ability to grant users free, immediate information access, list potential paper topics, and (with the right prompts) generate entire academic essays, Generative AI can allow students to complete writing and research tasks without developing the skills college-level assignments are designed to build and assess. Furthermore, while AI detectors like AI Text Classifier, GPTZero, and CopyLeaks AI Content Detector can help identify AI-generated work, they are still not able to do so with complete accuracy (Ray, 2023).

Students should also be aware that Generative AI has its share of limitations. Generative AI does not always provide accurate information and has been criticized for reinforcing harmful stereotypes due to biases in training data (Ray 2023). Open AI (2023) has also stated that "the model is skewed towards Western views" and "some steps to prevent harmful content have only been tested in English." Generative AI's dialogue format can also reinforce user biases by tacitly "agreeing" with strong opinions (OpenAI, 2023).

For more information on Madonna University's current policy on AI use, please review our [Generative AI for Students](#) handout on the MU OWL.

The Purpose of this Handout

From composing an email to writing a research paper, Generative AI can be extremely useful when tackling a variety of writing-related tasks. The purpose of this handout, then, is to provide strategies for using Generative AI to support research, writing, and critical-thinking skills, while

also addressing its limitations in academic contexts. To give you a sense of the AI, we have also added links to "sample chats" that include exchanges for you to model, modify, and critically evaluate as you experiment with Generative AI on your own. Please note that all of the information provided is in reference to Generative AI 3.5 and does not address the features or capabilities of the most recent model, Generative AI 4.0.

Asking the Right Questions

While Generative AI is highly receptive to conversational language, users can still benefit from asking questions strategically. Below, we've included a list of general question-generating tips originally compiled by *Elevato*:

- Use clear, specific, and concise language
- Use standard grammar and spelling.
- Avoid using jargon or slang
- Provide sufficient context/background info
- Ask one question at a time
- Avoid using "offensive" language
- Avoid asking personal information
- Avoid asking questions relating to events after 2021

Since Generative AI engages with users through direct conversation, you can also establish parameters for responses using these follow-up commands:

- If a response seems too general or superficial, ask Generative AI to "provide more detail."
- Click "regenerate response" to view alternative responses to the same question. You can "regenerate" responses as many times as you wish.
- If a response seems too long or excessively detailed, ask Generative AI to "condense."
- Provide length guidelines for Generative AI's responses in terms of wordcount and/or number of paragraphs

Research

Generative AI can be an effective tool during the various stages of the research process. Generative AI can help you:
- Brainstorm research topics
- Refine research questions

- Generate search terms
- Identify strategies for finding scholarly sources
- Identify effective note-taking strategies
- Organize your research into a table
- Format citations for your works cited or reference page.

Limitations
- While Generative AI can provide a "research plan" to help you find credible information, it cannot compile a list of scholarly sources on its own. This is because Generative AI does not have direct access to databases or the internet to retrieve real-time information (OpenAI, 2023).
- Generative AI's last "knowledge update" was in January 2022. Therefore, it is unable to retrieve current information (OpenAI, 2023).
- Generative AI cannot provide direct quotes from copyrighted and is unable to identify page numbers where quotes are located (even when accurate publication information is included).

[Sample Chat #1:](#)

Outlining

Creating an outline can be a great way to develop and organize your ideas before you begin writing a paper. When outlining, Generative AI can help you:
- Choose an outlining style that aligns with your approach to thinking, learning, and writing
- Create a general structure for your essay based on the prompt or research question that you provide
- Revise an existing outline

Limitations
- OpenAI (2023) itself recommends that writers use AI-generated outlines as "a starting point and tailor them to your specific needs and insights." Doing this will allow you to make the most of this resource, while ensuring that your outline reflects your own preferences and meets your instructor's expectations.
- If you ask Generative AI to include specific research into an outline, sometimes it will be organized based on order of appearance instead of content.

[Sample Chat #2:](#)

Revision

Some instructors may let you use Generative AI to revise your essay. It's important to remember that this involves using Generative AI to improve upon material that you've *already written* (not using it to write your entire essay). During the revision process, Generative AI can help you by:

- Identifying and editing grammatical and mechanical errors
- Offering suggestions to improve clarity, structure, and word choice
- Suggesting ways to strengthen arguments
- Refining thesis statements
- Offering a general evaluation of your essay's "strengths and weaknesses" based on criteria provided
- Providing feedback on specific sections of your paper

Limitations

- Generative AI's often suggests using more sophisticated language, but these suggestions may not align with your personal voice. Ultimately, your writing should sound like *you*, so remember to factor in authenticity when implementing Generative AI's revisions.
- If you don't provide a rubric, assignment description, or a set of guidelines, Generative AI will evaluate your essay based on "general fundamental principles of effective writing and communication" (OpenAI, 2023). While this type of assessment can be helpful, it may not reflect all of your instructor's expectations.
- Generative AI is unable to proofread for plagiarism, so it is up to you to make sure that you are citing appropriately.
- Generative AI cannot directly proofread or edit documents, so you may find programs like Grammarly to be more effective in this area
- Generative AI lacks "contextual awareness," and even when given highly-specific instructions and parameters, it is still not fully able to factor in "nuances, cultural or contextual sensitivities, or the specific requirements of your academic institution or field" (OpenAI, 2023).
- Generative AI has a maximum limit of 4096 characters per response, so essays that exceed this limit need to be submitted section-by-section (OpenAI, 2023).

Sample Chat #3:

Conclusion

If your instructor gives you permission to use it, Generative AI can be a great resource throughout the writing process. However, it is ultimately a tool and cannot truly replace your own thought and creativity. Hopefully, the strategies above have given you some ideas of how to use this AI to help you continue to develop as a writer, researcher, and thinker.

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