



GRADUATE STUDIES GENERATIVE AI GUIDELINES

Artificial intelligence (AI) powers many aspects of interactions with technology—from searches on Google to the virtual assistants on cellphones. Students and educators continue to assess and determine the ways in which AI should and will be used in and outside of the classroom to maximize teaching and learning. While CSULB has general AI guidelines for faculty and the campus community writ large and Guidelines on Generative AI for students, this document aims to provide specific guidelines for graduate students, as they research and write their theses and dissertations.

Please note: *This document is not a CSULB or Graduate Studies policy.* It is not intended to be an exhaustive list of rules for all possible situations. This document is meant to act as a supplementary document to CSULB guidelines and to any directives given by professors. It provides guidance and considerations to help graduate students make prudent, informed choices about the use of AI in their academic work. For a particular assignment/class, graduate students must consult with their professor on whether the use of AI is allowed and the extent and capacity of that use. *The professor's guidance, rules, and syllabus take precedence over any guidance written here.*

What Is Generative AI?

According to IBM (2024), "Al is technology that enables computers and machines to simulate human learning, comprehension, problem solving, decision making, creativity and autonomy" (para. 1). One of the more nascent iterations of Al is generative Al ("GenAl")—those that focus on text inputs built from natural language processing that uses data from across the Internet to provide a response based on the most common combination of words, phrases, and information. Specifically, generative Al uses a prediction model to craft customized responses based on user-inputted text and parameters, the user's previous queries, and the available and accessible data/content that the Al analyzes. These responses are an amalgamation of pieces of information from existing data.

Examples of generative AI tools include Open AI's ChatGPT, Google's Gemini (formerly Bard), Anthropic's Claude, and Microsoft's Copilot. CSULB's version of Copilot is included in students' tuition, and the Division of IT suggests it is the safest free version of chatbots available. Grammarly, a writing assistant tool, has its own AI-integrated system that provides AI-generated corrections and writing suggestions. Popular research tools are also powered by AI, such as Elicit and Perplexity. CSULB Librarians recommend using the University's databases, as they provide broader, safer access to reliable information. Additionally, CSULB's Interlibrary Loan Service can secure access to materials not immediately available in the Library's collections. (Review this link for more information about Interlibrary Loan.)

Many of these tools, including some library systems, use AI to enhance functionality and run systems in the background. In several services, users can type a question or prompt to interact with the system, which responds in a conversational style. When this is available, users can refine their queries or request additional information as needed. The AI can also provide text based on a prompt. Search engines, like Google, Yahoo, and Bing, use AI to both generate results and provide AI-created summaries of those results. Some chatbots, like ChatGPT and Copilot, also use information from the Web and will provide weblinks to the sites they have summarized. Other chatbots, like Claude, do not access the Web.

GenAl systems can be useful tools for CSULB graduate students, even with their limitations.

Strengths and Weaknesses

GenAI has many potential strengths and weaknesses that graduate students should consider.

Strengths

- Rapidly answers questions
- Gives real-time personalized feedback
- Can help brainstorm
- May enhance productivity and efficiency
- Provides grammar and other writing help
- Rapidly assesses a large corpus of data
- Summarizes information from sources that are available on the Internet
- Can provide support for non-native English speakers
- Simulates human-like conversation to create a user-friendly experience
- Creates responses unique and tailored to the user
- Free to use (many AI bots have both free and paid versions; Microsoft Copilot is available free to all CSULB students through <u>Single Sign on</u>)
- Can contribute to environmental sustainability in its efficient environmental data monitoring and analysis

Weaknesses

- Produces ephemeral responses that are not consistently retrievable as permanent records.
 - Chatbot responses may be inaccessible over time. This complicates efforts to verify accuracy or cite them in academic work.
 - o Responses to the same prompt may also vary, leading to inconsistency.
 - * Note: CSULB's version of Copilot provides users with a history of their past queries/chats.
- Provides both true and false/inaccurate information, in some cases "hallucinating" sources.
 - o Some citations provided by the AI are fictitious sources or mosaic citations that lead nowhere.
- Prone to bias
 - These tools use existing data (i.e., web information, Internet searches, conversations, etc.) created by humans with their own biases. GenAl answers or responses retain, if not magnify, those biases especially as each GenAl tech company has its own biased angle or approach.
- Does not ensure that user queries are confidential**
 - Prompts and queries can be used to inform responses to other users. Queries on novel topics can become part of the Al's database.
 - **Note: CSULB's version of Copilot, paid versions of ChatGPT with the opt-out policy activated, and Google Notebook LM are exceptions to this, but students should take care in considering the level of privacy provided for the chatbot they are using. Students can adjust LLM settings to ensure confidentiality and privacy.
- Undermines the value of learning
 - o Overreliance on GenAI to perform tasks may hinder one's skill development related to those tasks.
 - Al outputs cannot be judged well by those learning a field.
 - Students need to develop their research skills in their field of study to be able to assess Al's output.
- Easy to misuse
 - Students may avoid citing or not know how to cite information and text provided by GenAI.
 - Unintentional and intentional plagiarism can happen.
 - Academic integrity and professional ethics can be called into question.
 - Personal ethics can be damaged.

- Difficult to verify whether text is AI generated
 - Questions of plagiarism may arise, including false positives.
- Has a large environmental impact
 - Al data centers consume a great amount of electricity (often from burning fossil fuels), water, and raw earth materials, thereby generating greenhouse gases, heat, and electronic waste.
 - According to the International Energy Agency (2024), a ChatGPT query consumes 10 times the amount of energy as a regular Google search
 - *** Note: Many search engines now integrate Al-generated summaries into their results.

Using AI Tools and Graduate Study

Graduate programs and their professors aim to engage graduate students in the pursuit of academic excellence through vigorous research, creative efforts, and innovation. Students should strive towards these goals and consider how AI tools can further or hinder their achievement.

For example, when tasked to write a literature review, an AI text generator provides a summary on current research with citations. Relying on this information may be a good start, but you will need to assess the accuracy of the response. Solely using this information translates into a lost opportunity of gaining the skills and experience of researching, synthesizing, and highlighting key information. Instead, use the AI tool's response as a first step. The next step is to use the University Library's resources to check the sources and corroborate via lateral reading—fact checking information from one source by finding additional sources that provide similar information. As a graduate student, consumer of information, innovator, creator, scholar, and researcher, your task is to make sure that the information is accurate and that you identify additional credible sources that the AI tool may not be able to provide. Always remain skeptical of sources that are not from reputable, established experts or peer-reviewed publications. Your access to the University Library provides you with what you need to make sound choices for your assignments and projects.

In cases when you've received your professor's approval to incorporate Al-generated results into your academic work, it is important to properly cite this content. Students should follow the recommendations and citation format of whichever style guide your graduate program uses (e.g., APA Manual, the Chicago Manual of Style, MLA). The following links provide guidance for specific style guides:

- APA Style: How to cite ChatGPT. https://apastyle.apa.org/blog/how-to-cite-chatgpt
- Chicago Manual of Style: Citation, Documentation of Sources.
 https://www.chicagomanualofstyle.org/qanda/data/faq/topics/Documentation/faq0422.html
- MLA: How do I cite generative AI in MLA style? https://style.mla.org/citing-generative-ai/

These principles also extend to figures, images, graphics, videos, and other multimedia generated using AI. Students should similarly cite as needed and should be aware that publications (e.g., academic journals) may have certain rules for AI-generated text that differ from their policies for AI-generated visual content.

In graduate culminating activities—theses, project reports, dissertations, and comprehensive exams—transparency of AI usage is of utmost importance. Students must consult their thesis advisors whether any usage of AI tools is allowed and appropriate. If approved, the student should work with their advisor on ensuring full transparency of which AI tools were used in their scholarly work and in which capacity (e.g., brainstorming, outlining, researching, writing, editing).

Key Takeaways for Effective Strategies on Responsible AI Usage

If a graduate student uses an AI text generator, they should:

- 1. Consult with professors to understand guidelines and rules on using AI in CSULB courses
- 2. Consider confidentiality (adjust settings to ensure confidentiality and privacy)
- 3. Use Al-generated information only as a starting point
- 4. Assess response accuracy
- 5. Check sources' authenticity
- 6. Corroborate via lateral reading
- 7. Ensure sources are reputable, written by established experts, or are peer reviewed
- 8. Remain abreast of AI tool capabilities and limitations; these will continue to evolve
- 9. Consult with a librarian for help finding resources that are reputable and useful for assignments
- 10. Remember that the purpose of graduate school is to learn; retain your agency as a graduate scholar-researcher-author

Consulted and Additional Resources

To learn more about the responsible use of AI tools or about the AI tools themselves, see the following resources below:

- Alexis Pavenick, 2025, "Chatbots and Beyond: A Guide about Al Technologies."
 https://csulb.libguides.com/chatbotsandai#s-lg-box-30570900
 Dr. Pavenick, one of our CSULB librarians, has created an extensive guide on Al that includes a lot of information as well as recommendations specific to the CSULB campus community. See especially her "Further Resources" section. If you wish to consult with Dr. Pavenick about using Al, contact her via her LibGuides page.
- Allison Parshall, 2024, "What Do Google's Al Answers Cost the Environment?" *Scientific American*. June 11, 2024. https://www.scientificamerican.com/article/what-do-googles-ai-answers-cost-the-environment/
- CSULB AI Steering Committee, n.d. "<u>AI Resources for Students"</u>. Accessed December 2024. https://www.csulb.edu/information-technology/ai-technology/ai-resources-for-students
- Georgia Tech, 2025, "Effective and Responsible Use of AI in Research: Guidance for Performing Graduate Research and in Writing Dissertations, Theses, and Manuscripts for Publications."
 https://grad.gatech.edu/sites/default/files/documents/Guidance%20for%20Effective%20and%20Responsible%20Use%20of%20AI%20in%20Research.pdf
- IBM, 2024, "What is Artificial Intelligence (AI)?" August 9, 2024. https://www.ibm.com/topics/artificial-intelligence
- Noam Chomsky, Ian Roberts, and Jeffrey Watumull, 2023, "The False Promise of ChatGPT." The New York Times.
 https://www.nytimes.com/2023/03/08/opinion/noam-chomsky-chatgpt-ai.html
 This source offers a particular, opinionated perspective on GenAI, and presents the personal views of its authors.
 While it should not be treated as the final word (as no source should), it offers important background on the scope and limits of AI technology. It should be noted that the NY Times is in a lengthy copyright infringement lawsuit with OpenAI, the parent company of ChatGPT.
- Open AI, n.d. "Prompt Engineering." Accessed December 2024. https://platform.openai.com/docs/guides/prompt-engineering
- United Nations Environment Programme, 2025, "Al has an environmental problem. Here's what the world can do about that." https://www.unep.org/news-and-stories/story/ai-has-environmental-problem-heres-what-worldcan-do-about
- University of Cambridge, 2025, "Blended Learning Service." https://blendedlearning.cam.ac.uk/guidance-support/ai-and-education/using-generative-ai
- University of Maryland, 2024, "Artificial Intelligence (AI) and Information Literacy." Accessed December 2024. https://lib.guides.umd.edu/c.php?g=1340355&p=9880575
- University of Toronto, 2024, "Guidance on the Appropriate Use of Generative Artificial Intelligence in Graduate Theses," December 2, 2024. https://www.sgs.utoronto.ca/about/guidance-on-the-use-of-generative-artificial-intelligence/
- USC Libraries, 2025, "Using Generative AI in Research: Home." https://libguides.usc.edu/generative-AI/home
- Will Caldwell, 2024, "'I Received a First but It Felt Tainted and Undeserved': Inside the University AI Cheating Crisis." *The Guardian*. December 2024. https://www.theguardian.com/technology/2024/dec/15/i-received-a-first-but-it-felt-tainted-and-undeserved-inside-the-university-ai-cheating-crisis
- Yale School of the Environment, 2024, "Can We Mitigate Al's Environmental Impacts?" October 10, 2024. https://environment.yale.edu/news/article/can-we-mitigate-ais-environmental-impacts

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