GenAI use in education

STUDENT GUIDELINES

This page provides general information and guidelines about GenAI and its responsible use by students.

1. What is GenAI

Generative Artificial Intelligence (GenAI) is a form of machine learning. It is the collective term for algorithms capable of creating new content. This content can take different forms: text or code, as well as images, videos and audio, or a combination of all of these.

GenAI generates output in response to a query/prompt using generative models such as Large Language Models (LLMs) and relies on large data sets to do so. Some well-known examples are text generators such as ChatGPT, the integration of ChatGPT into Microsoft Bing, Google Gemini, and image generators such as DALL-E and Midjourney. FGGA also provides its students and staff with their own GenAI environment, called LUChat.

2. What uses of GenAI are not permitted under any circumstances?

- Any form of literal copying and reproduction without full source citation (quoting, referencing) of material generated by GenAI is considered fraud.

- Any use of GenAI without an appropriate disclosure (as specified by the course instructor) is considered fraud.

Within Leiden University fraud is understood to mean: Any action or omission that makes it completely or partly impossible to form a proper assessment of an individual's knowledge, insights, skills, professional attitude or reflection. See your program's Rules & Regulations for more explanation of fraud and what the consequences may be if you are found guilty of it as a student.

3. What uses of GenAI are permitted?

Acceptable use of GenAI varies depending on the learning objectives and the types of assignments, which is why teachers decide on a on a subject-by-subject, assignment-by-assignment or activity-by-activity basis, whether use of GenAI is permitted and what conditions apply (for instance by specifying a level from the table below). Information about acceptable GenAI use is available in the course syllabus or directly from the course instructor at the request. If the information is not clear, "No AI" is the default option.

Tabel 1. Scale of permitted AI use

Level		Key message	Disclosure
1	*No AI*	The assignment is completed entirely without AI assistance. This level ensures that students rely solely on their knowledge, understanding, and skills. AI-generated content or any other form of AI may not be used at any point during the assignment.	No AI disclosure is required. The teacher may require a statement confirming no use of AI.
2	*AI-assisted idea generation and structuring*	AI can be used in the assignment for brainstorming, creating structures, and generating ideas for improving work. However, the use of AI-generated content within the assignment is not allowed. No AI content is allowed in the final submission.	AI disclosure is required. Include a statement declaring how AI was used. A record of used prompts should be maintained and handed over to the teacher on request.
3	*AI-assisted editing*	AI can be used to make improvements to the clarity or quality of student-created work to improve the final output, but no new content can be created using AI. AI can be used, but your original work with no AI content must be provided in an appendix.	AI disclosure is required. Include a statement declaring how AI was used in your final submission A record of used prompts should be maintained and handed over to the teacher on request.
4	*AI task completion, human evaluation*	AI is used to complete certain elements of the task, with students providing discussion or commentary on the AI-generated content. This level requires critical engagement with AI-generated content and evaluates its output. You will use AI to complete specific tasks in your assessment. Any AI-generated content must be cited.	AI-created content must be referenced accordingly, using APA citation. A prompt record should be maintained and could be requested by the teacher.
5	*Full AI*	AI should be used as a 'co-pilot' to meet the requirements of the assignment, allowing for a collaborative approach with AI and enhanced creativity. You may use AI throughout your assessment to support your own work. Depending on the teacher's decision, reference may be required.	The teacher can request either not to cite anything or cite AI-generated content using APA-citation. A prompt record should be maintained and could be requested by the teacher.

Source: AI in education, www. leidenuniv.nl. Note: the levels are not accumulative, i.e. a level 3 does not mean that thereby also level 2 is permitted, etc.

4. LUChat

As a student of FGGA, you have access to LUChat, the GenAI environment of Leiden University. LUChat is designed to provide a highly secure and completely private environment in which you can interact with multiple, industry-standard LLM tools. You can think of it as a safe, secure, European-hosted, GDPR-compliant version of ChatGPT. However, this does not mean that its use for your studies is automatically permitted. As outlined in the regulations above, the teacher always decides, on a subject-by-subject, assignment-by-assignment or activity-by-activity basis, whether AI is permitted and what conditions apply. You should therefore always follow the instructions and guidelines that apply to your course.

5. Citing GenAI in APA Style

In those cases where the use of generative AI software is allowed, you should refer to it just like any other source you use. At FGGA, APA is used as the default reference style. Other possible reference styles include Chicago, MLA, Harvard, and Vancouver.

An APA-style reference for GenAI includes the following elements:

Author. (Date) *Title (*Version) [Description]. Publisher. URL

Examples of citing GenAI	**Reference**	**In-text**
ChatGPT	OpenAI. (2023). *ChatGPT* (September 25 versie) [Large Language Model]. https://chat.openai.com/ **NB:** Omdat de auteur en uitgever identiek zijn kun je ervoor kiezen de uitgever weg te laten.	(OpenAI, 2023) OpenAI (2023)
Bard	Google AI. (2023). *Bard* (October 23 versie) [Large language model]. Google. https://bard.google.com/chat	(Google AI, 2023) Google AI (2023)

Also include the prompt used to generate a particular text in your paper.

By way of illustration

When the prompt "Why are learning styles called a myth?" is given, the ChatGPT-generated text shows that there are four main reasons for the designation of learning styles as a myth: lack of valid evidence and consistency, risk of stereotyping, and limitations in instructional design for teachers (OpenAI, 2023).

6. Guidelines for responsible use

Do not enter (privacy) sensitive information into GenAI

There is little transparency from AI developers on what is done with personal data entered into the tool. The data is also often stored in cloud applications that are not always General Data Protection Regulation (GDPR) compliant, and storage is often outside the EU. This could raise security issues for both personal data and new findings in scientific research. Feeding GenAI any of these data could be equivalent to disclosure, which may cause a data breach and/or prevent the filing of a patent for that discovery. For that reason, be mindful not to enter confidential information, such as personal or research data, into GenAI applications.[1]

Create the added value yourself

GenAI applications can be a useful tool, but you are always expected to have a critical attitude towards the output. The actual meaning takes place through your own argumentation, substantiation, critical analysis, creative input, and reflection. The request GenAI algorithm is not trained with your data. If possible, request that the GenAI tool does not train its algorithm with your data. You can request ChatGPT to not use your entered data for training the model via 'Make a privacy request'. Note that this does not relieve you from the previous guideline not to enter privacy-sensitive, IP-protected or copyrighted material into GenAI.

Plagiarism and copyright infringement

GenAI tools lack transparency about the sources used when generating output, increasing the likelihood of plagiarism. The risk of copyright infringement is an additional risk. The databases used by GenAI tools contain source material that leaves unclear whether original authors gave consent for usage of that material, or whether any copyright was respected. Be sure to paraphrase and reference properly (see above section on Citing GenAI APA-style) and apply thorough source research (see Verify GenAI below). Do not enter any source material you have found yourself if an author has not made it clear they give their permission to do so.

Verify GenAI

Use GenAI if permitted, but it is important to remain vigilant. It is not always possible to find out how the algorithms arrived at a particular conclusion, and there is no transparency about what sources were used. GenAI's purpose is to generate text that seems as plausible as possible, and veracity is not verified. In some cases, the LLM may fabricate answers entirely; this is referred to as the GenAI 'hallucinating'. This means there is no guarantee that the system's output is actually correct. Verify results and answers and look for existing source material to cross-reference any claims made by GenAI. You are considered responsible for any incorrect information in your work that may have originally come from GenAI. **The authors are always responsible for the accuracy of any information in their work. This means that authors must verify any information and citations provided to them by an AI tool.**

[1] LUChat is fully safe and private, so it is excepted from this.

Issues with bias

GenAI tools are often trained with large quantities of unknown data, which may be outdated or no longer representative of current standards. Developers or publishers give very little transparency about how or if a GenAI has any inherent biases, or options to mitigate that bias. This means any answers given by GenAI may perpetuate stereotypes or biases.

Retry your input

Using GenAI effectively can sometimes be a skill. Asking an overly simple question can produce an overly general or vague GenAI output. Use 'prompt engineering' to increase the specificity and usability of the output. Avoid leading or loaded questions or attempting to push the GenAI towards a specific conclusion.

Limit energy consumption by GenAI

Know that the energy cost of servers for GenAI tools is very high, asking one question would equal charging multiple smartphones. So, use them only when they can add value.

Prioritize your personal development

GenAI tools are not (necessarily) designed for education. Actively engaging in fundamental academic tasks, such as structuring arguments, generating ideas, and summarizing texts, is essential for developing your intellectual skills. Just as a robot cannot build your muscle mass by going to the gym for you, it is important to critically reflect on what you delegate and whether this delegation supports or undermines your learning process.

7. Additional Resources

Follow this e-module about GenAI and the academic community:

💻 GenAI and LLMs in the Academic Community 🎓 | Rise 360

Sources

- https://npuls.nl/en/news/npuls-introduces-the-magazine-smarter-education-with-ai/
- https://www.iesalc.unesco.org/wp-content/uploads/2023/04/ChatGPT-and-Artificial-Intelligence-in-higher-education-Quick-Start-guide_EN_FINAL.pdf
- https://www.kuleuven.be/onderwijs/student/onderwijstools/artificiele-intelligentie