

Vice President for Education

## **Guidelines «Citing AI Tools»**

# How to use tools based on artificial intelligence

## **Background**

Recent years have led to the development of "generative digital tools": computer programs based on artificial intelligence (AI) that produce text, images, videos or code based on user input.

The quality of these tools has improved significantly since about 2022, as seen in the examples of OpenAI's ChatGPT 3.5 (text generation), Dall-E (image generation) and Midjourney (image generation).

Al-supported generative technology, such as chatbots or image and multimedia generation programs, are now capable of producing academically relevant output. Nonetheless, these tools also have notable weaknesses: in particular, they frequently make serious factual errors and freely invent facts, including bibliographical references.

### Is the use of Al-supported tools allowed during one's studies?

The University of Basel does not have a general prohibition on the use of Al-supported tools. Students should learn how to handle these tools sensibly and responsibly. This involves an awareness of the strengths and weaknesses of Al tools, of academic integrity and legal parameters.

Academic writing skills will continue to be essential: comprehensive subject knowledge, familiarity with academic methods, and writing skills are needed in order to be able to critically evaluate and adapt the output of AI tools.

#### **Under what conditions?**

- 1. Al tools must always be cited, just like other tools and sources. Student papers without complete attribution of sources and tools may be seen as attempted plagiarism or cheating.
- 2. The output of AI tools are not scientific sources. They should be treated more as the result of a regular internet search. Even if the source is cited properly, it is still the responsibility of the author(s) to ensure the relevance and accuracy of the AI output.
- 3. Student papers and examinations must always be solely the work of the student(s). For this reason, Al-supported tools may at most be used in a supporting role for any work that is submitted for credit. Students must retain a controlling role. In an academic context, being able to take full responsibility for one's own written work remains the goal. The same applies to other outputs including images, diagrams, bibliographies, etc.

## Basic principles of citation

A detailed citation is always required when Al-generated elements are incorporated into a paper. This applies both to the use of elements produced by Al tools in their original form and to the use of such elements after editing. Any use of Al-based tools in the reflection and conception phase must also be disclosed.

Based on these principles, the Modern Language Association of America has established the following three rules (cf. "How do I cite generative AI in MLA style?", Modern Language Association of America, <a href="https://style.mla.org/citing-generative-ai/">https://style.mla.org/citing-generative-ai/</a>, accessed on 28 March 2023).

#### You should:

- 1. "cite a generative AI tool whenever you paraphrase, quote, or incorporate into your own work any content (whether text, image, data, or other) that was created by it"
- 2. "acknowledge all functional uses of the tool (like editing your prose or translating words) in a note, your text, or another suitable location"
- 3. "take care to vet the secondary sources it cites" (as indicated above, Al tools often freely invent sources.)

Digital tools that do not have a specific generative function, such as software to check spelling or grammar, online dictionaries, library catalogs, etc. do not need to be cited.

# When writing a paper, what should I pay attention to in order to properly document my use of Al tools?

In order to be sure you are properly citing your use of an AI tool, we strongly recommend saving the entire chat session history (questions/input and answers) outside of the tool itself. Depending on the subject, you may be required to submit the chat transcript as an appendix along with your work.

During the research and writing process, create a log that keeps track of which tools are used for which sections. Here's an example:

| Al-based<br>tool                        | Type of use  | Affected parts of the work  | Remarks  |
|---|--|---|--|
| DeepL<br>Translator                     | Translation of text passages   | Entire paper  |  |
| ChatGPT<br>(OpenAI)<br>or similar tools | Creation of text suggestions, as indicated in text and/or footnotes  I asked ChatGPT about the paper topic and compared its results with my own research | Chapter 1, p. 3, section 2  Chapter 2, pp. 5-7, full chat transcript in Appendix II |  |
| Dream (Wombo)                           | Creation of visualizations   | Figure 2, p. 7  | Image 2, p. 7: idea borrowed from Dream, then heavily modified |
|   |  |   |  |

Documentation table: Example

## Help with formulating citations

A variety of different citation models are currently being developed. The rules of the Modern Language Association of America can serve as a helpful model. We will use them here. Departments or individual instructors may require students to provide more details about their use of AI (a copy of the full chat history, for example).

When citing Al-based tools, the following elements must be included:

- **Title:** for text, image, and multimedia generation tools, the prompt (i.e., user input) serves as the title. For particularly long prompts, indicate only the beginning of the prompt.
- Name and version of the tool
- Publisher (company, organization or person who provided or programmed the tool)
- Date of content generation
- Location (address / URL of the tool)

Much like a list of works cited, a list of tools or other aids must be included at the end of the paper, in which the use of Al-supported tools is made transparent.

#### **Examples**

#### Example 1. Verbatim citation of the text

Geology can be defined as the science that "studies the upper layers of the earth" ("What is geology?", answer by ChatGPT, 23 March 2023).

#### Example 2. Paraphrase of the text

As a geologist, Martina Musterfrau does not study all our planet's interior, but only its upper layers (cf. "What is geology?", answer by ChatGPT, 23 March 2023).

#### Example 3. Translation

"Comme je descendais des fleuves impassibles" (Rimbaud). "Downstream on impassive rivers suddenly" (translation Samuel Beckett). "As I went down the impassive rivers" (translation DeepL, 5 April 2023).

#### Example 4. Image

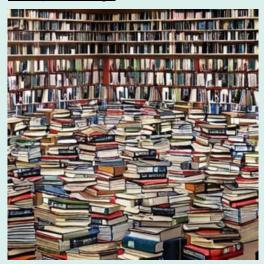


Image 1. "An ocean of books", image generated by Stable Diffusion, 28 March 2023.

#### **Tools and literature**

#### Tools

- ChatGPT version 3.5, OpenAI: openai.com/chat
  - o "What is geology?", answer provided on 23 March 2023
  - o Help with creation of text structure
- DeepL Translate, Deepl SE: https://www.deepl.com/translator
  - Translation of text passages
- DeepL Write, Deepl SE: https://www.deepl.com/write
  - Reformulation of text passages
- Elicit The Al Research Assistant, version March 2023, Ought: https://elicit.org
  - o Literature research, creation of summaries
- Stable Diffusion, Stability AI: https://stablediffusionweb.com
  - o "An ocean of books", image generated on 28 March 2023

#### Literature

Beckett, Samuel (1976). Drunken Boat. A Translation of Arthur Rimbaud's Poem "Le Bateau ivre". Reading: Whiteknights Press, 1976.

#### Sources for this handout

- 2023 03 06 Didaktik Recht KI Hochschulbildung.pdf
- https://zfhe.at/index.php/zfhe/article/view/1678
- https://guides.library.uq.edu.au/referencing/chatgpt-and-generative-ai-tools/overview
- <a href="https://style.mla.org/citing-generative-ai/">https://style.mla.org/citing-generative-ai/</a>

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