University of Basel

Vice President for Education

Guidelines «Citing AI Tools»
How to use tools based on artificial intelligence

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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 from user input.

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

AI-supported generative technology, such as chatbots or image and multimedia generation programs, are now capable of producing academically relevant output. New tools are constantly being developed and released for increasingly specialized tasks that are central to learning and teaching (e.g. summaries, data analysis, visualizations, etc.).

The results of these tools are often surprisingly good. Nonetheless, these tools also have notable weaknesses: in particular, they frequently make serious factual errors and freely invent facts, including bibliographical references. They are also often problematic in terms of copyright and data protection.

Is the use of AI-based tools allowed during one’s studies?

The University of Basel does not have a general prohibition on the use of AI-supported tools. Students should learn how to handle these tools sensibly and responsibly. This involves an awareness of the strengths and weaknesses of AI 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. AI 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 products of AI tools are not scientific sources. They should be treated more as the result of a simple 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 assignments and examinations must always be the independent work of the students themselves. For this reason, AI-supported tools may only be used in a supporting role for any work that is submitted for credit. Students must retain a controlling role, in particular when AI-

based tools are used to create content outlines and text structures, which represent a significant adoption of ideas. This is precisely where researchers at an early stage of their career must demonstrate their ability to use these tools critically. In an academic context, being able to take full responsibility for one's own written work remains the goal. The same applies to other products submitted for credit, including images, diagrams, bibliographies, etc.

Basic principles of citation

A detailed citation is always required when AI-generated elements are incorporated into a paper or other work submitted for credit. (Digital tools which 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.) Lecturers and instructors decide upon the exact form and content of citations.

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, accessed on 09.02.2024 – the American Psychological Association has similar recommendations).

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"

   This refers to the transfer of content elements generated by AI tools, be it in their original state or after modification. Content elements include ideas, arguments, interpretations (including summaries), evaluations, text structures, code and images (including diagrams, visualizations, etc.). In such cases, a reference to the tool must be inserted at or near the corresponding passage, as shown below.

2. "acknowledge all functional uses of the tool (like editing your prose or translating words) in a note, your text, or another suitable location"

   This is about revising content created by the students themselves with the help of AI-based tools: for example, rephrasing, translating, adapting and improving images or optimizing code. In such cases, a general note about the tool and how it was used, mentioned at the beginning or end of the assignment, is usually sufficient.

3. "take care to vet the secondary sources it cites"

   As indicated above, AI tools often freely invent sources.

Sources for this handout

- 2023_03_06_Didaktik_Recht_KI_Hochschulbildung.pdf
- https://apastyle.apa.org/blog/how-to-cite-chatgpt
- https://guides.library.uq.edu.au/referencing/chatgpt-and-generative-ai-tools/overview
- https://style.mla.org/citing-generative-ai/
- https://zfhe.at/index.php/zfhe/article/view/1678

Guidelines «Citing AI Tools»
Properly citing content generated by artificial intelligence

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

To make sure that AI tools are cited properly, it is advisable to save the entire chat session (questions/input and answers) outside of the tool itself. In this way, students can make their working methods transparent upon request, for example if lecturers have doubts as to whether the mentions of the AI tools used within a student's work are correct and complete.

During the research and writing process, a log can be created to keep track of which tools are used for which sections. Here is an example:

	AI-based tool	**Type of use**	**Affected parts of the work**	**Remarks**
1	DeepL Translator	Translation of text passages	Entire paper	
2	ChatGPT (OpenAI)	Creation of text suggestions, marked in text and/or footnotes	Chapter 1, p. 3, section 2	
3	ChatGPT (OpenAI)	I asked ChatGPT about the paper topic and compared its results with my own research	Chapter 2, pp. 5-7, full chat transcript in Appendix II	
4	ChatGPT (OpenAI)	Rephrasing of the introduction to chapter 3	Chapter 3, p. 12, first paragraph	
5	Dream (Wombo)	Creation of visualizations	Figure 2, p. 7	Image 2, p. 7: idea borrowed from Dream, then heavily modified
…	…	…	…	…

Documentation table: Example

According to the rules set out above, a general note at the beginning or end of the paper would be sufficient for points 1 and possibly also 4. For points 2, 3 and 5, on the other hand, the tool should be cited in-text or in a footnote.

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 AI-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, cite 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 AI-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 to the author, 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 to the author, 23 March 2023).

Example 3. Translation

Samuel Beckett translated Rimbaud's "Bateau ivre" as "Drunken Boat" (Beckett 1976). It could also be translated as "The Drunken Ship" (DeepL, 23 March 2023).

Example 4. Image

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

Example 5. Text structure

This paper on the Cold War between 1945 and 1989 identifies three particularly important features of this period: the ideological conflict between super-powers, proxy wars in the Third World and, finally, the arms race, especially in the field of nuclear deterrence (based on an output by Claude 2.1 / Anthropic, 09.02.2024).

Tools and literature

Tools

- Claude, version 2.1, Anthropic: via https://chat.lmsys.org/
  - Help with creating the text structure with the input: "The three most important features of the Cold War", output from 9.02.2024
- ChatGPT version 3.5, OpenAI: openai.com/chat
  - “What is geology”, answer to the author, 23 March 2023.
  - Help with creation of text structure.
- DeepL Translate, Deepl SE: https://www.deepl.com/translator
  - Translation of text passages.
- DeepL Translate, Deepl SE: https://www.deepl.com/write
  - Reformulation of text passages.
- Elicit – The AI Research Assistant, version March 2023: https://elicit.org
  - Literature research, creation of summaries.
- Stable Diffusion, Stability AI: https://stablediffusionweb.com
  - “An ocean of books”, image generated for the author, 28 March 2023.

Literature

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

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