Orientation guidelines
for dealing with text-generating AI systems at the University of Graz
(issued on 1 September 2023)

Since ChatGPT was made publicly available in November 2022, text-generating AI systems have become very well-known and have a broad user base. They (also) have a wide range of potential applications in the context of studying and teaching, but at the same time present universities with new challenges. This document provides teachers and students with general orientation guidelines for dealing with text-generating AI systems. Further information can be found on the website https://ki.uni-graz.at, where it is possible to react and respond more flexibly to dynamic (technical) developments.

Definition

AI text generators (or text-generating/ text-generative AI systems) produce texts based on statistical information about language (sequence patterns and composition structures) and are usually controlled by user input (prompts). At their heart are Large Language Models (LLMs), which use machine learning, extensive training data, artificial neural networks, and special architectures to imitate human language behaviour and perform various text operations (continuation, summarisation, translation, adaptation, etc.). A prominent example of AI text generators is ChatGPT, a language model designed for human conversation, which was presented and made available by the US company OpenAI in November 2022.

Text-generating AI systems in studying and teaching

Text-generating AI systems are not a transient phenomenon, but future-oriented technologies with manifold effects on all areas of society. The university is tasked with adequately dealing with these systems, integrating them appropriately into teaching, and supporting lecturers and students in the best possible way in applying these systems following general principles of good scientific practice.

Pedagogical use

Correlating with the content to be taught, the use of text-generating AI systems should be proactively promoted to ensure that students acquire sufficient skills in dealing with these systems (building AI literacy). Both the advantages of these systems as well as points of criticism and associated challenges should be subject of discussion. The systems should – in a reflective manner – be applied in practice in such a way that they support students in their writing processes and the associated development of critical thinking.

General use

The decision as to which text-generating AI systems may be used in what form is the responsibility of the teacher. The scope and form of use must be explicitly stated in the course description and made known to the students before the start of the course.

Labelling

Good scientific practice requires the labelling of work not written by oneself in the form of references. Although AI-generated texts are not original academic work, they are unique and – in contrast to previous forms of citation – cannot be reproduced in the context of student assessments and, therefore, cannot be cited and looked up (like conventional text passages). Furthermore, AI-generated texts cannot currently be detected with sufficient validity using conventional means such as plagiarism software or AI detectors.

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If AI tools are used in part for written work submitted for assessment, it is recommended that students are required to submit a corresponding academic integrity statement with details of which AI tools are used for which purposes.

Example (cf. Gimpel et al., 2023):

> When writing this article, the authors used ChatGPT, Grammarly, DeepL, and Microsoft Word to improve the linguistic presentation of their thoughts. Full responsibility for the content lies with the authors.

The verbatim copying of AI-generated text passages is – analogous to conventional citations – indicated by naming the AI tool and specifying the interaction.

Example of Harvard citation style (see Scribbr):

> "AI-generated text" (OpenAI's ChatGPT language model, answer to a question from the author, 14 February 2023)

Legal and ethical aspects

According to current Austrian copyright law, users do not acquire copyright of a text generated by an AI through a prompt input; AI-generated texts are therefore not an original piece of work per se (see also "Didaktische und rechtliche Perspektiven auf KI-gestütztes Schreiben in der Hochschulbildung").

AI-generated texts may contain erroneous or distorted content (bias), incorrect references, copyright infringements and/or plagiarism. Uploading copyrighted materials (e.g., student texts) to AI-based tools may also constitute a copyright and/or data protection violation.

When using text-generating AI systems, users are responsible for ensuring compliance with the legal regulations and observing the UNESCO recommendations on the ethical use of AI.

Recommendations for the use of text-generating AI systems

The reflective and pedagogically motivated use of text-generating AI tools is an integral part of future-oriented university teaching that prepares students in the best possible way for their future working environments in a global, diverse, and digital knowledge society. The use of AI tools requires an adaptation of teaching and learning behaviour as well as a re-design of assessment practices. The following recommendations, partly based on Gimpel et al. (2023), provide an initial orientation; further information can be found on the website https://ki.unigraz.at.

Recommendations for teachers

As a teacher, you may consider

- trying out AI tools yourself to get a feeling for how they can be used and to generate ideas on how AI tools can be used in your teaching,
- defining and implementing application scenarios for AI tools based on the defined learning outcomes,
- encouraging students to reflect on the use of AI tools as a means of supporting them in completing tasks and writing processes,
- making AI tools the subject of analysis and research in the respective discipline,
- using AI tools to support the creation of learning elements and knowledge assessments.

Recommendations for students

As a student, you may consider using AI tools

- as supporting interaction partners, e.g., to create concepts, discuss questions or enrich existing knowledge,
- to initiate and optimise writing processes, e.g., by generating rough drafts for individual text passages, getting help with linguistic expression or having text passages translated,
- for the individualisation and structuring of learning content, e.g., by creating individual summaries, enriching available content according to your own needs or creating personalised learning plans,
- to check and optimise your own work, e.g., by having a programme code checked.

It is important for students to

- use AI tools reflectively and responsibly as well as recognise and take into account their limitations and susceptibility to errors,

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- check AI-generated content (with the help of other sources) for accuracy,
- use AI tools exclusively in compliance with legal regulations and the specific rules of the respective course,
- adhere to the principles of good scientific practice, also when using AI tools

<u>Recommendations for the design of student assessments</u>

Provided that the principles of good scientific practice are observed, text-generating AI tools can provide valuable support for students when completing assignments.

If the use of AI tools is to be avoided in written assignments submitted for assessment (for specific reasons), it is advisable to

- create competence-oriented tasks that cannot be solved by using text-generating AI tools,
- shift the focus in assessments from assessing a "product" to assessing the learning or creation process, e.g., by requiring students to document and/or reflect on the process,
- review written student work by augmenting it with oral assessment or replacing written assignments with oral examinations,
- choosing alternative forms to written work such as presentations, infographics, podcasts or videos,
- conduct summative examinations synchronously and face-to-face under examination supervision.

Further information, support services, and contact

To provide teachers and students with the best possible support when using text-generating AI systems, a website has been set up at https://ki.uni-graz.at. Operated by the Department of Academic Services, the Competence Center for University Teaching, and the Center for Digital Teaching and Learning, this website provides up-to-date information (e.g., resources and links), details on current staff training (e.g., workshops and webinars), a list of available tools, descriptions of specific application scenarios (for teachers and students), as well as contact details of specifically qualified staff.

<u>Support services and contact for teachers:</u>

Center for Digital Teaching and Learning
Michael Kopp (<u>michael.kopp@uni-graz.at</u>, DW 1062)
Simone Adams (<u>simone.adams@uni-graz.at</u>, DW 1095)
Barbora Orlická (<u>barbora.orlicka@uni-graz.at</u>, DW 1098)

Competence Center for University Teaching
Beatrice Kogler (<u>beatrice.kogler@uni-graz.at</u>, DW 1225)

<u>Support services and contact for students:</u>

Writing Center
Doris Pany-Habsa (<u>doris.pany@uni-graz.at</u>, DW 1150)
Franziska Gürtl (<u>franziska.guertl@uni-graz.at</u>, DW 1226)

Literature/Sources

Gimpel, H., Hall, K., Decker, S., Eymann, T., Lämmermann, L., Mädche, A., Röglinger, R., Ruiner, C., Schoch, M., Schoop, M., Urbach, N., Vandirk, S. (2023). <u>Unlocking the Power of Generative AI Models and Systems such as GPT-4 and ChatGPT for Higher Education: A Guide for Students and Lecturers.</u> University of Hohenheim.

Salden, P. & Leschke, J. (Ed.) (2023). <u>Didaktische und rechtliche Perspektiven auf KI-gestütztes Schreiben in der Hochschulbildung.</u> Zentrum für Wissenschaftsdidaktik der Ruhr-Universität Bochum.

UNESCO (2021). Recommendation on the Ethics of Artificial Intelligence (programme and meeting document). https://unesdoc.unesco.org/ark:/48223/pf0000380455

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