

Regulation

„How to handle generative artificial intelligence in dissertations“

The doctoral committee decides:

When writing the dissertation and using generative artificial intelligence¹ (AI), the rules of good scientific practice must be observed. Doctoral students must also observe data protection and copyrights when using AI.

This means in particular, but not exclusively:

- Traceability and transparency are important basic principles of good scientific practice that also apply to the use of AI (see DFG 2023:2).
- Doctoral students can use AI as a writing tool to revise the language of their existing text, e.g. to slightly change the form of the text, for spelling, grammar, punctuation, finding synonyms and the like (see Foltynnek 2023: 3).
- If AI is used to generate longer text passages, these must be checked and revised very critically.² Doctoral students must also ensure that the use of generative models does not infringe any third-party intellectual property and that no scientific misconduct occurs, e.g. plagiarism (see DFG 2023: 2). Doctoral students take full responsibility for the content of their dissertation and carry the burden of proof.
- If generative AI is used as a tool for data analysis, doctoral researchers must ensure that the AI does not interfere with the research data in any way and does not invent or distort any new data. Confidential data must not be used as input for generative models (see DFG 2023: 2).
- A significant intellectual contribution must be maintained (see Ruhr-University Bochum 2023: 33). Doctoral students must have significant control over text production.
- AI is an aid that must be cited as such in the affidavit (see Doctoral Degree Regulations, Annex 2). The following table should be used for this purpose, based on the AI guidelines of Magdeburg-Stendal University of Applied Sciences (see 2024: 4).

¹ Generative AI learns from new data and independently generates new texts, images and the like. Examples of generative AI are large language models such as ChatGPT and Midjourney.

² Doctoral students should be aware of the problems of generative AI tools: Generative AI has been trained with a data basis that is unknown for some AI tools; this can pose a copyright problem. Generative AI also hallucinates; it would rather give a wrong answer than not give an answer. For example, a citation given by an AI may be incorrect.

14th Meeting of the doctoral committee

Doctoral Center Social, Health and Economic Sciences

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Source table for generative AI

Chapters or paragraphs of the work	Tools used	Form of use³	Depth of use⁴	Remarks⁵

Example to fill in the table (based on example table, Magdeburg-Stendal University of Applied Sciences 2024: 6)

Chapters or paragraphs of the work	Tools used	Form of use	Depth of use	Remarks
Structure	ChatGPT-4o	Proposal structure	Several outline proposals compared and adapted	
Figure	DALL-E 3	Figure generated	Fully adopted	
Summary	ChatGPT-3	Shortening and rephrasing in academic style	Fully adopted	Nothing has been changed by the AI in terms of content.

³ e.g. formulation suggestions for individual text passages, structuring of the text, formulation of headings, data evaluation

⁴ e.g. AI proposal adopted; proposal adopted but adapted; AI proposals heavily revised and sources added

⁵ If, for example, there is any doubt as to whether you have performed the work yourself, the corresponding prompt can be noted here. If a prompt uses specialist knowledge and demonstrates problem-solving skills, it could also be used to show personal contribution (see Ruhr-University Bochum 2023:33).

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Literature

DFG (2023): Stellungnahme des Präsidiums der Deutschen Forschungsgemeinschaft (DFG) zum Einfluss generativer Modelle für die Text- und Bilderstellung auf die Wissenschaften und das Förderhandeln der DFG, [online]

<https://www.dfg.de/resource/blob/289674/ff57cf46c5ca109cb18533b21fba49bd/230921-stellungnahme-praesidium-ki-ai-data.pdf> [abgerufen am 19.11.2024].

Foltynek, Tomas, Sonja Bjelobaba, Irene Glendinning, Zeenath Reza Khan, Rita Santos, Pegi Pavletic und Július Kravjar (2023): ENAI Recommendations on the ethical use of Artificial Intelligence in Education, in: *International Journal for Educational Integrity*, Bd. 19, Nr. 12.

Magdeburg-Stendal University of Applied Sciences (2024): Leitfaden zur Nutzung generativer KI im Studium an der Hochschule Magdeburg-Stendal. LEITFADEN für Studierende, [online]

https://www.h2.de/fileadmin/user_upload/Leitfaden_fuer_Studierende_zur_Nutzung_generativer_KI_an_der_h2_-_final_02.07.2024.pdf [abgerufen am 19.11.2024].

Ruhr-University Bochum (2023): Didaktische und rechtliche Perspektiven auf KI-gestütztes Schreiben in der Hochschulbildung, [online] https://hss-opus.ub.ruhr-uni-bochum.de/opus4/frontdoor/deliver/index/docId/9734/file/2023_03_06_Didaktik_Recht_KI_Hochschulbildung.pdf [abgerufen am 19.11.2024].