

Artificial Intelligence in Doctoral Studies

Recommendations of the Doctoral Committee of the Department of Spatial Planning
As of 21 October 2026

*AI tools may be used in doctoral studies.
However, the dissertation must demonstrate your aptitude for independent academic work.
Anyone who adopts AI output makes it their own and must have checked it, understand it
and be able to defend it. Any use of AI that affects the scientific content is disclosed in the
dissertation.*

1. Purpose and principles

These guidelines are intended to help doctoral candidates use AI productively while staying on the safe side in terms of examination law. They are recommendations; the binding legal basis is the Doctoral Regulations of the Department of Spatial Planning of 6 March 2024.

The following recommendations rest on three principles:

1. **Independence:** The doctorate demonstrates that you are able to develop and carry out a research project independently. AI can support you in this, but it cannot replace this ability. What is assessed is your scientific achievement: the research question, the choice and application of methods, the selection and verification of content, the line of argument and the conclusions drawn.
2. **Responsibility:** If you adopt AI output, you make it your own. You are accountable for every sentence, every figure, every source and every illustration, regardless of how they were produced. AI is never an author.
3. **Transparency:** Reviewers and readers should be able to see where AI has contributed to the scientific content.

The doctorate is a qualification phase. Those who hand over key steps of their work to AI do not learn them, and will find it difficult, at the latest in the oral examination (disputation), to justify their own work and place it in the context of their field.

2. Legal framework

The Doctoral Regulations do not mention AI, but they contain all the relevant rules. These guidelines explain what these rules mean for working with AI.

Provision	Content	Implications for AI
Section 2 Doctoral Regulations	Demonstration of a special aptitude for independent academic work	The core of the research achievement must recognizably be your own.
Section 11 (1) Doctoral Regulations	An independent scientific thesis that represents an advance in the state of scientific knowledge	Adopted AI content counts as your own statements. The dissertation must show that the advance in knowledge is based on your own research achievement.
Section 11 (4) Doctoral Regulations	Passages taken from other works verbatim or in terms of meaning must be identified	If an AI reproduces other people's ideas or wording, the original sources must be identified and cited. AI itself is not a citable source.
Section 12 (2) Doctoral Regulations	Affidavit: written independently and without unauthorized outside help; all resources and aids used are listed	AI is an aid within the meaning of the affidavit. Its use, where relevant to content, belongs in the disclosure (see part 4).
Section 12 (2) Doctoral Regulations	Declaration that the 'Rules of Good Scientific Practice' of TU Dortmund University have been observed	Both the Rules of Good Scientific Practice of TU Dortmund University and the DFG Code of Conduct also apply to AI-assisted work.
Sections 22, 23 Doctoral Regulations	Declaration of invalidity or withdrawal of the doctoral degree in the event of deception or a false declaration	Undisclosed use of AI that has contributed substantially to the content may be regarded as deception.

3. What can, may and should I do? A traffic light by phase of work

The traffic light classifies typical uses according to how strongly they shape the scientific substance of the dissertation. **Green:** common practice, no disclosure required. **Yellow:** permitted, but to be disclosed and checked with particular care. **Red:** incompatible with independent work or good scientific practice.

Phase	Green	Yellow (disclose)	Red
Choice of topic, research proposal	Brainstorming, challenging questions on your own ideas, feedback on clarity	Substantial input on the research question or research design	Having a research proposal or research question generated and presenting it as your own
Working with literature	Finding search terms, research tools (e.g. Elicit, Semantic Scholar) as a starting point, questions to help you understand texts you have read	AI summaries of larger bodies of literature as a working basis	Citing sources you have not read and checked yourself; citing AI as evidence
Data and methods	Help with programming, debugging, GIS scripts that you understand and test	AI as an analytical instrument (e.g. coding of qualitative data, classification, remote sensing, scenarios), described in the methods chapter	Having data generated, supplemented or “smoothed”; analyses you cannot follow or explain
Interpretation, discussion	AI as a critical sparring partner: counter-arguments, gaps, alternative readings	AI arguments that become central to the discussion	Having AI draw conclusions or make evaluations
Writing	Spelling, grammar, style, translation of your own texts, feedback on structure and coherence	Revisions that go beyond linguistic form and change content, line of argument or emphasis; text drafts that AI formulates from your own content (notes, results, outline) and that you revise	Having the content of chapters or substantial parts of the text (argument, analysis, evaluation) developed by AI and adopting it, even if it is linguistically revised
Figures, maps, plans	Help with layout and design of your own graphics	Generated visualizations, renderings, scenario images, labeled as AI-generated	Presenting generated images as photographs, findings or empirical data
Oral examination	Preparation: practice questions, rehearsing the defense		Unauthorized aids during the examination

When in doubt: anything the reviewers would need to know about how a result came about in order to assess it belongs in the disclosure. Borderline cases are best discussed with your supervisor at an early stage.

No one is required to use AI. Those who choose not to must not be disadvantaged in supervision or assessment.

4. Disclosure

Any use of AI that affects the scientific content must be disclosed (yellow in the traffic light). Tools for language, spelling, translation and formatting need not be listed. This standard corresponds to the [rules of the German Research Foundation \(DFG\) for funding proposals](#).

What: Tool (name, version), purpose, chapters concerned, extent of adoption (adopted, revised or used only as a starting point) and how you checked the results.

Where: In a separate section (e.g. “Resources and AI tools used” before the list of references). If you use AI as a research method, also describe this in the methods chapter, including model, version, period of use, settings and validation.

Your own records: For uses of AI that are central to the content, keep the key prompts or a short note, as well as interim versions of your texts. This is part of documenting your research and helps you demonstrate your own contribution if questions arise.

Sample wording (adapt to your own dissertation):

In preparing this dissertation, I used the following AI tools: Campus-KI (GPT-5) for feedback on the structure of Chapter 2 and for language editing of Chapters 4 to 6; Elicit for the initial search on the state of research (Chapter 3), after which I consulted all sources in the original; MAXQDA AI Assist for suggestions on coding the interviews (Chapter 5.2), with the category system developed by me and all coding checked manually. I have checked and revised all AI-assisted content and take full responsibility for it.

This disclosure fulfills the obligation under the affidavit (Section 12 (2) Doctoral Regulations) to list all aids used. If you have not used AI, state this in one sentence; this provides clarity for the reviewers.

5. Cumulative dissertation

The disclosure covers the entire dissertation, including all individual works pursuant to Section 11 (7) Doctoral Regulations, regardless of what the respective journal requires. It may be given in summary form in the jacket text.

- The AI policies of journals and publishers apply in addition and must be observed when submitting the articles.
- In the case of co-authorship, the disclosure refers to the contributions attributed to you. Clarify the use of AI with your co-authors at an early stage.
- The disclosure applies to all AI tools, including older applications that were available before today's language models.

6. Data, confidentiality and choice of tools

In spatial planning, you often work with sensitive data. This is where practical risks lie.

- **Personal data:** Interview transcripts, statements from public participation procedures or names of stakeholders do not belong in external AI services. According to the [guidance of TU Dortmund University](#), entering personal or confidential data is currently not permitted, not even in Campus-KI.
- **Confidentiality agreements:** You may process data from municipalities, planning consultancies or third-party funded projects only as permitted by the respective agreement.
- **Copyright:** You may upload third-party texts, such as full texts from publishers' databases or unpublished expert reports, only if the rights of use permit this.
- **Choice of tools:** Give preference to the services provided by the university (Campus-KI, ChatAI via the Academic Cloud). In free basic versions of commercial services, inputs are often used for training.
- **Equal access:** Expensive subscriptions should not confer an advantage. For computationally intensive applications such as remote sensing or extensive GIS analyses, discuss resources with your supervisor and your chair.

7. Supervision and oral examination

Your own contribution becomes visible above all in the working process.

- **Supervision agreement (Section 8 (7) Doctoral Regulations):** Briefly record your planned use of AI and revisit it in your reports to your supervisor, which are due at least twice a year (Section 8 (6)).
- **Interim results:** Colloquia, doctoral seminars and meetings with your supervisor show how the work develops. They are the most convincing evidence of your own contribution.
- **Oral examination (Section 16 Doctoral Regulations):** You must be able to justify all results, methods and arguments yourself and place them in context, including where AI was involved. Questions about your use of AI are a legitimate part of the examination.

- **AI detectors:** The Department does not base suspected cases on AI detectors. These are unreliable and put, for example, non-native speakers at a disadvantage.
- **Supervisors and reviewers:** The same standards apply to them. Dissertations and reviews are not uploaded to external AI services; assessment and its justification remain a personal task. Anyone who uses AI in supervision, for example for feedback, discloses this.

8. Typical pitfalls in spatial planning

In our field, AI goes wrong in predictable places. Check the following with particular care:

- **Legal bases:** invented or outdated provisions from the Federal Building Code (BauGB), the Federal Spatial Planning Act (ROG), the Federal Land Utilisation Ordinance (BauNVO) or state planning law; confusion between federal states.
- **Literature:** plausible-sounding but non-existent sources or incorrect bibliographic details. Every source must be checked in the original.
- **Data and indicators:** invented statistics, wrong territorial boundaries, unclear reference years.
- **Spatial biases:** large cities, the Global North and English-language discourses are overrepresented; rural areas and local planning cultures are neglected.
- **Vision-statement clichés:** interchangeable phrases such as “livable, resilient neighborhoods” that gloss over the balancing of interests and conflicting objectives.
- **Visualizations:** renderings and scenario images look like findings. They illustrate but prove nothing, and must be labeled as AI-generated.

Further guidance is provided by the Department’s handouts “[Beneficial Use of Artificial Intelligence](#)” (Making good use of artificial intelligence) and “[AI Tools in Spatial Planning](#)” (both August 2026) and by the TU Dortmund handout [Using Generative Artificial Intelligence \(AI\) in Studies, Teaching, and Examinations](#) (version 2.0, July 2026).

9. Further development

AI tools and the debate about their use in research are evolving rapidly. The Doctoral Committee continuously adapts these recommendations to the current state of knowledge and technology. It welcomes questions, borderline cases and reports of experience.