



ISTANBUL AYDIN UNIVERSITY

Graduate Education Institute

INFORMATION ON THE USE OF ARTIFICIAL INTELLIGENCE IN THE GRADUATE THESIS WRITING PROCESS

A Guidance Document for Master's and Doctoral Students

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Generative artificial intelligence tools (ChatGPT, Claude, Gemini, Copilot, and the like) have become part of the academic writing process. Over the past two years, the world's leading universities have published official guidelines on how these tools may be used in graduate thesis and non-thesis project work. This document has been prepared to inform Istanbul Aydın University graduate students on the basis of those international practices. It has also been aligned with the national framework on the basis of the Council of Higher Education's (YÖK) "Ethical Guide on the Use of Generative Artificial Intelligence in the Scientific Research and Publication Activities of Higher Education Institutions" (May 2024) and TÜBİTAK's "Guide to the Responsible and Reliable Use of Generative Artificial Intelligence in Support Processes" (January 2026).

The general principle is this: artificial intelligence (AI) is a tool that supports the researcher's processes of thinking, analyzing, and producing an original contribution; it cannot replace those processes. The intellectual originality, scientific reasoning, and final expression of the thesis belong to the student, who is fully responsible for them.

1. Fundamental Principle

A thesis is a document that proves the candidate's independent scientific competence. For this reason, when assessing your use of AI, it is enough to ask yourself the following question:

"Is AI doing this work instead of me, or is it helping me while I do it myself?"

If it is helping you (correcting the writing, formatting, giving feedback, explaining a concept, and so on), AI use is generally not a problem. But if it is thinking, analyzing, or writing in your place (producing findings, copying a literature summary verbatim, having the thesis text written from scratch, and so on), this can lead to a breach of academic integrity.

2. Areas That Can Be Used Comfortably

The forms of use below are generally regarded as acceptable at most international universities. Even so, confirming with your advisor is recommended.

AREA OF USE	EXPLANATION
Language and writing	Correcting spelling, punctuation, and grammar mistakes (proofreading)

	• Suggestions to improve sentence flow for students whose native language is different
Idea development	• Brainstorming around the research question, hypothesis, or chapter structure • Asking for explanations in order to understand concepts or methods (for learning)
Feedback	• Getting feedback on the clarity, coherence, or structure of a draft you wrote (without having the text rewritten) • Having questions posed to spot logical gaps in your argument
Technical support	• Bibliography formatting (conforming to a citation style such as APA, IEEE, etc.) • Formatting of tables, figures, and charts • Writing auxiliary code snippets that do not constitute the main technical contribution of the analysis (e.g., a data-cleaning script)
Translation	• Preliminary translation of source texts that are not the direct focus of your research topic (the final translation must be checked and the source cited)
Data labeling	• AI may be used for text and image labeling; however, bear in mind that labeling accuracy depends on the quality and impartiality of the dataset the model was trained on, and the accuracy check must be carried out by the researcher

3. Areas Requiring Careful and Limited Use

AI use in these areas is not entirely forbidden, but it requires verification, oversight, and explicit declaration. Do not proceed in these areas without your advisor's approval.

AREA OF USE	EXPLANATION
Literature review	• Asking for source suggestions or a search strategy on your topic is acceptable; however, it must be confirmed against the original text that every source the AI suggests genuinely exists and that its content is reported accurately (AI models can invent non-existent sources/citations)
Data analysis	• Help may be taken in selecting a statistical method or drafting analysis code; interpreting and verifying the results must be done under the researcher's own supervision • It is ethically appropriate for a researcher to use a model they trained themselves in the analysis. If an off-the-shelf AI system is used, the method applied must be transparent, reproducible, and explainable, and the tool used and its version must be stated in the Methods section

Summarizing	Using it to shorten a long section you wrote yourself is relatively acceptable; however, having AI summarize someone else's article and adding that summary to your thesis as if it were your own wording carries a plagiarism risk
Visual / figure generation	It can assist in drafting descriptive visuals such as a conceptual-framework diagram. Charts and figures that represent findings must be produced from raw data and must not be generated by AI
Synthetic data	Generating synthetic data with AI to fill in missing observations or enlarge the sample is possible, provided the method is justified, clearly defined in the Methods section, and approved by the advisor. Otherwise the findings become misleading

4. Prohibited / Unacceptable Areas

The forms of use below are treated as breaches of academic integrity.

AREA OF USE	EXPLANATION
Text generation	- Having the introduction, literature review, methods, findings, discussion, or conclusion sections of the thesis written directly by AI and used without change - AI output appearing in the thesis as if it were your own sentences (undeclared use = plagiarism risk)
Scientific findings	- Using AI to produce a research finding, interpretation, or conclusion — a violation that directly undermines the thesis's requirement of an "original scientific contribution" - Producing non-existent data, sources, or quotations (AI models can generate references that look real but do not exist — "hallucination")
Confidentiality / data security	- Entering unpublished research data, participants' personal/identifying information, confidential institutional documents, or findings that could be patentable into publicly available AI platforms - Uploading data subject to ethics-committee approval to these tools (can cause a breach of the Personal Data Protection Law [KVKK] and of research ethics) - Because most of these tools run their servers abroad, entering data may count as a "transfer of data abroad" under Article 9 of the KVKK; no personal data that has not been anonymized or masked should be entered into these systems
Approval process	Using AI in a way that affects the substance of the thesis without informing or obtaining the approval of the advisor and, where needed, the thesis monitoring committee
AI in place of participants	Using AI instead of real participants in data-collection processes such as surveys, interviews, and focus groups, or generating artificial participant responses with AI

5. Declaration (Explicit Disclosure) Requirement

The shared rule in international practice is that every AI tool used must be explicitly declared within the thesis, stating for what purpose and how it was used. A declaration does not mean citing the AI tool as a source (AI output is not a “source”); its aim is to provide academic transparency.

Sample declaration sentence (can be added to the Preface/Acknowledgements or the Methods section):

“In the course of preparing this thesis, [tool name and version] was used for grammar checking and bibliography formatting; all outputs produced were reviewed and verified by the author. The scientific content, analysis, and interpretation of the thesis belong to the author.”

Disclosure threshold. Simple spelling and grammar checking falls below the disclosure threshold. By contrast, drafting any section of the thesis, generating analysis code, carrying out data analysis, generating a visual, or producing content that supports the thesis’s main arguments counts as “substantial use” and must always be declared.

The declaration must clearly state the name and version of the tool used, the date of use, the stage or section of the thesis in which it was used, and the nature of that use. Sections in which AI was used must also be explained in the Methods part.

AI tools cannot be listed as authors in the thesis or in publications derived from it. Because they cannot take responsibility for the final form of a work, they do not meet the conditions for authorship.

In studies that require ethics-committee approval, the purpose, scope, and nature of AI use must also be reported in the ethics-committee application.

6. Responsibility and Consequences

- The scientific and ethical responsibility for every statement in the thesis rests with the student, independently of the tool used.
- Where undeclared or improper AI use is detected, the matter is assessed under the University’s academic-integrity and plagiarism policies.
- The output of AI-detection software cannot by itself be the basis for a disciplinary process. However, in doubtful cases the advisor and jury may ask the student for an oral defense or for the different versions of the thesis from the writing process (revision history).
- For this reason, you are advised to keep all of your draft versions — especially the earliest ones you wrote without AI.
- AI models can carry into their output, and reinforce, the social biases (gender, ethnic origin, age, etc.) that come from their training data. Particularly at stages involving qualitative analysis, classification, and interpretation, output should also be reviewed critically from this angle.
- AI output can reproduce copyrighted material belonging to others. The originality of text, code, and visuals, and the license terms of any generated code, must be checked by the student (Law No. 5846 on Intellectual and Artistic Works).

7. Communicating with Your Advisor

The boundaries of acceptable use can vary by department, discipline, and thesis topic (for example, expectations about writing code in engineering differ from expectations around qualitative analysis in the social sciences). For this reason, in any situation where you are unsure, talk openly with your thesis advisor before starting the thesis work and throughout the process. When in doubt, ask — do not assume.

8. Note for Advisors, Thesis Monitoring Committees, and Jury Members

Thesis drafts are unpublished, original, and confidential works. For this reason, advisors, thesis monitoring committee members, and jury members must not upload the thesis text or its sections to publicly available AI tools in order to evaluate or summarize them or to draft a report/critique. This approach is consistent with the restriction TÜBİTAK applies in its evaluation processes and with the practices of bodies such as the NIH, NSF, and the European Commission.

The scientific content of the evaluation and the final decision must in every case rest on the evaluator's own expert judgment.

9. Summary Table

ASK YOURSELF	TIP
Did I produce this text, or did AI?	The sentences must be yours. AI output cannot be used as copy-and-paste.
Is this information/data confidential?	If it is confidential, do not enter it into any general AI tool.
Is this producing a finding or interpretation?	Scientific interpretation and conclusions must be yours alone.
Are the sources real?	Always verify every citation against the original source.
Does my advisor know?	If you are unsure, consult your advisor before using it.

This document was adapted to the Istanbul Aydın University context in the light of the sources below, drawing on a review of the publicly available AI and thesis-writing guidelines of institutions such as Oxford, Cambridge, Princeton, MIT, Harvard, Toronto, ETH Zürich, Washington, Georgia Tech, Alabama–Huntsville, and Florida International University.

References

- Council of Higher Education (YÖK) (2024). Ethical Guide on the Use of Generative Artificial Intelligence in the Scientific Research and Publication Activities of Higher Education Institutions, May 2024. <https://proje.yok.gov.tr/tr/page/635>
- TÜBİTAK (2026). Guide to the Responsible and Reliable Use of Generative Artificial Intelligence (GenAI) in Support Processes, January 2026. https://tubitak.gov.tr/sites/default/files/2026-01/UYZ_Rehberi_v04_TR.pdf
- Personal Data Protection Law No. 6698 (KVKK)
- Higher Education Law No. 2547
- Law No. 5846 on Intellectual and Artistic Works
- Graduate Education, Teaching, and Examination Regulation
- Directive on Scientific Research and Publication Ethics of Higher Education Institutions