

Guidelines for the use of generative AI at TAB

1 Introduction¹

Generative artificial intelligence (AI) tools based on large language models (e.g., GPT-5) or diffusion models (e.g., Stable Diffusion) have been increasingly used in recent years to support research and in the creation of texts, images, and audio and video material.

At TAB, we pursue the goal of using AI responsibly, safely, and reflectively. Therefore, the following guidelines set out stipulations for the use of generative AI throughout the entire life cycle of TAB's scientific products, from the conception to the communication of results, including institutional communication. The guidelines are intended to ensure the quality of TAB's work when using generative AI. They also cover work commissioned by TAB (e.g., expert reports, translations, visualizations).

These guidelines are to be understood in the context of other, partly binding, and/or overarching legal frameworks and regulations such as the European Union's Regulation (EU) 2024/1689² (AI Act). In addition, various guidelines on the use of generative AI already exist for the scientific community, for example from the European Commission (EC 2024), the German Research Foundation (DFG 2023), the Leopoldina (2023), the Helmholtz Association (2024), KIT (2025), as well as publishers and journals (Ganjavi et al. 2024). As these guidelines fundamentally relate to compliance with academic standards when using generative AI, they are also relevant to the work of TAB. The basic principles of research integrity, as formulated in the DFG Code of Conduct (2019), also apply to scientific work with generative AI.

Apart from these legal frameworks and guidelines, we prefer to use tools that comply with the European Commission's ethics guidelines for trustworthy AI (EC 2019). The use of AI tools requires sufficient skills (Art. 4 AI Act), so users should regularly complete training courses that at least raise awareness of documentation requirements, data hygiene, data protection in accordance with the General Data Protection Regulation³ (GDPR), and of risk assessment when using generative AI.

Use cases for generative AI

The use cases for generative AI in technology assessment are diverse and range from AI as a research aid to text writing. The following use cases are particularly relevant to the work of TAB:

- › **Exploratory research:** This includes use cases in which generative AI is used as a tool to ask knowledge questions, in particular:
 - › Research in scientific databases using generative AI
 - › Research using tools that draw on or have been trained with generally available online content

¹ These guidelines were originally written in German and have been machine translated with the help of DeepL (deepl.com). The machine translation was revised by TAB.

² Regulation (EU) 2024/1689 laying down harmonized rules on artificial intelligence and amending Regulations (EC) No. 300/2008, (EU) No. 167/2013, (EU) No. 168/2013, (EU) 2018/858, (EU) 2018/1139, and (EU) 2019/2144, and Directives 2014/90/EU, (EU) 2016/797, and (EU) 2020/1828 (Artificial Intelligence Act)

³ Regulation (EU) 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)

- **Qualitative content analysis:** This includes all applications in which specific text corpora (or data sets) are analyzed using generative AI, in particular:
 - Answering questions about a dataset based on prompts
 - Automatic annotation and coding of texts
 - Identification of topics in the dataset (e.g., through topic modeling)
 - Automated evaluation of individual texts/text corpora according to specified criteria
- Idea generation involves the use of generative AI for creative tasks such as:
 - Creating personas to represent specific groups of people
- Creation of future scenarios
- When it comes to **data analysis**, generative AI can be particularly helpful with unstructured data, for example:
 - Analyzing topics or sentiments in text corpora
 - Creating or adapting programs for the automated evaluation of data.
- Other use cases in which generative AI is used as a programming tool:
 - Writing code, including formulas/scripts for MS Excel and other applications
 - Debugging existing code
- **Communication of results** (text, image, and audio production): This encompasses all applications in which AI tools are used to create content based on prompts, in particular:
 - Formulating new texts (including formulating text based on notes)
 - Correcting or rephrasing existing texts
 - Creating summaries of longer texts
 - Translations and transcriptions
 - Generating and editing of image and/or audio material

Regular revision of the guidelines

As the development of tools and use cases is very dynamic, these guidelines will be reviewed regularly and revised as necessary.

2 Guidelines

Responsibility for the use of results

- The full responsibility for the use of AI-generated results lies with the people who use these results. Only humans can be authors. The results or outputs of the tools must always be checked. AI must not be the sole source of information, especially for content intended for publication and for use in other important decisions.
- This applies in particular to the responsibility for the accuracy and adequate balance of content, the responsibility for plagiarism, and the compliance with intellectual property rights.

Disclosure of use

- In internal and published TAB results, the use of AI tools should be disclosed in a manner appropriate to the publication or document. This can be done in the introduction, in the methods section, in a footnote, or in a list at the end of the publication. The exact form and position of the disclosure is the responsibility of the authors, unless there are formal requirements for a specific format.
- Example wording (example applications are given here in italics; others that are not mentioned here should be added specifically for the respective document):
- Generative AI tools were used to create this report, i.e., *[name of tool]* for *[formulating, correcting, or rephrasing texts]*, *[name of tool]* for *[creating summaries]*, *[name of tool]* for *[translating texts]*, and *[name of tool]* for *[generating image and audio material]*. All AI-generated content has been carefully reviewed and edited to ensure accuracy and adequate balance. It was used in accordance with the TAB guidelines for generative AI. The authors bear ultimate responsibility for the accuracy of the content, critical reflection, and interpretation of the results.
- This disclosure does not apply to the use of tools for checking grammar, spelling, or similar aspects.
- For images, videos, and audio material, the reference must indicate that the content is AI-generated or manipulated.
- For translations and transcriptions, a note must be added stating that they were created by machine or with the help of AI-based software.

Quality assurance

- › The results or outputs of the tools must be systematically checked, particularly with regard to accuracy, timeliness, coherence, balance, precision, and any biases, for example due to prompting. Outputs must always be checked by triangulation.
- › In the case of translations, the translated text must be checked by persons familiar with the subject matter and the language.

Data and copyright protection

- › Users are responsible for the content provided to the AI tool and for potential data protection violations.
- › Personal information may only be entered or uploaded into GDPR-compliant tools.
- › Confidential work content (e.g., interim results for publications, unpublished expert reports, self-created data sets, or data that is not publicly available) may only be entered into tools that are GDPR-compliant, do not store data for long periods and do not use data for training purposes.
- › Copyrighted material (text, images, etc.) may only be entered if permission has been obtained from the copyright holder in advance.
- › Tools for exploratory research can be used regardless of where and how long the data is stored, as only individual knowledge questions are submitted to the tool.
- › For the publication of generated image content, only applications that are trained with licensed content, freely licensed content, and public domain content whose copyrights have expired should be used.

Sustainability

- › When selecting tools, information on environmental and social impacts should be reviewed and tools with the lowest possible impact should be preferred.
- › Before using generative AI, we carefully consider the extent to which its use adds clear value to the task and which tool is best suited to perform the task. Prompts should be carefully written and formulated as precisely as possible to avoid unnecessary additional queries.
- › Continuous training on generative AI should also cover its social and environmental impacts and strategies for using it in resource-efficient manner.

Excluded uses

- › The unchecked adoption of AI-generated texts is prohibited. Unchanged sections must be marked in the text and the use of AI tools must be indicated as described under „Disclosure of use.“

- AI tools that are granted access to personal, password-protected services for the purpose of performing tasks on behalf of the user are excluded from use for the time being, even when used with non-personalized data. A review will be conducted once the rules of human oversight in such systems (Art. 14 AI Regulation) have been developed further.
- Generative AI must not be used for automated decision-making, for example in the evaluation of expert opinions, proposals, or reports. Such evaluation processes require human judgment and the assumption of responsibility. Therefore, generative AI should only be used for non-substantive aspects of such evaluation and assessment processes, e.g., in the context of supplementary research.

3 Literature

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- Ganjavi, C. et al. (2024): Publishers' and journals' instructions to authors on use of generative artificial intelligence in academic and scientific publishing: bibliometric analysis. In: *BMJ* 384, Art: e077192, <https://doi.org/10.1136/bmj-2023-077192>
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2025

DOI: 10.5445/IR/1000188467

The Office of Technology Assessment at the German Bundestag (TAB) advises the parliament and its committees on issues relating to scientific and technological change. Since 1990, the TAB has been operated by the Institute for Technology Assessment and Systems Analysis (ITAS) at the Karlsruhe Institute of Technology (KIT). This is based on a contract with the German Bundestag. Since September 2013, it has been co-operating with the IZT – Institute for Future Studies and Technology Assessment gGmbH and the Institute for Innovation and Technology (iit) at VDI/VDE Innovation + Technik GmbH.