

Statement by the Executive Committee of the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) on the Influence of Generative Models of Text and Image Creation on Science and the Humanities and on the DFG's Funding Activities

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The possible applications of artificial intelligence (AI) are currently occupying large areas of society. This has been prompted in particular by the development of generative models for text and image creation such as ChatGPT and DALL-E that enable interaction between humans and technical systems in spoken languages or in text/images, and the fact that these have been made available to the public at large.

AI technologies are already changing the entire work process in science and the humanities, knowledge production and creativity in varying ways and are being used for different purposes in the various research disciplines. This development is still only in its early stages with regard to generative models for text and image creation (hereafter shortened to “generative models”), so an analysis and assessment is required in order to be able to judge the relevant opportunities and potential risks.

This statement by the Executive Committee of the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) serves to guide researchers in their research activities. Applicants to the DFG, and also those involved in the review, evaluation and decision-making process, are likewise provided with points of reference on how to deal with generative models in particular.

The use of generative models can have varying degrees of impact on the significance attached to the creation of a text and on the visualisation of research results in the day-to-day work of researchers. Since it is not immediately apparent to third parties whether the texts and illustrations they are viewing were created using generative models or whether the respective underlying research ideas were developed using generative models, transparent handling of

text and image content generation will be an important aspect in the evaluation of these technologies with regard to ensuring research quality.

In view of its considerable opportunities and development potential, the use of generative models in the context of research work should by no means be ruled out. However, certain binding framework conditions will be required in order to ensure good research practice and the quality of research results:

- ▶ The transparency and verifiability of the research process and the findings obtained from the point of view of third parties are key fundamental principles of research integrity. This value system continues to provide valuable guidance when dealing with generative models for text and image creation.
- ▶ It is in keeping with the professional ethics of researchers that they themselves should commit to compliance with the basic principles of research integrity. The use of generative models cannot relieve researchers of this content-related and formal responsibility.
- ▶ When making their results publicly available, researchers should, in the spirit of research integrity, disclose whether or not they have used generative models, and if so, which ones, for what purpose and to what extent.
- ▶ Only the natural persons responsible can appear as authors in research publications. They must ensure that the use of generative models does not infringe anyone else's intellectual property and does not result in scientific misconduct, for example in the form of plagiarism.
- ▶ In decision-making processes, the use of generative models in/for proposals submitted to the DFG is currently assessed to be neither positive nor negative.
- ▶ The use of generative models in the preparation of reviews is inadmissible due to the confidentiality of the assessment process. Documents provided for review are confidential and in particular may not be used as input for generative models.

The DFG has established a Senate Working Group on the Digital Turn to address, among other things, overarching epistemic and subject-specific issues involved in the application of generative models on an ongoing basis. In addition, the DFG Commission on the Revision of the Rules of Procedure for Dealing with Scientific Misconduct will address the impact of the use of generative models in connection with acts of scientific misconduct.

At the present time, it is only possible to gain a rudimentary grasp of how the use of generative models might impact on science and the humanities and on the DFG's funding activities. In order to be able to examine the opportunities and challenges involved, it will be important to gain and share experience of the use of generative models. Only this will enable a discursive and science-based process, to which the DFG will successively contribute in further statements.