

The use of generative AI in the Alexander von Humboldt Foundation's selection area

Since the introduction of ChatGPT at the latest, generative artificial intelligence has been increasingly shaping the academic system. Text-generating AI is used ever more frequently in students' and academics' texts as well as in funding applications. The Alexander von Humboldt Foundation is observing closely the concomitant debate about the use and misuse opportunities of generative AI and its continued development. To this end, it communicates with other funding organisations (including the DFG) and (inter)national academics, particularly in the field of artificial intelligence. Although the scientific community has not yet reached a consensus on how the use of generative AI should be evaluated and potentially acknowledged, it is evident that an informed and responsible approach to AI is needed, in the knowledge of its possibilities and limitations.

Generative AI in applications

In principle, the Humboldt Foundation welcomes the use of AI as an aid, also in the application process. For the time being, we do not require applicants to identify use. Essentially, text-generating AI is a tool that, historically, can be seen in the context of a series of innovations, such as electronic word processing, automatic text correction, and machine translation, each of which offers different benefits. Generative AI can be used meaningfully and productively, for example as a formulation aid. In the international academic system that is dominated by the English language, it is particularly helpful for non-native speakers who constitute a large proportion of the Humboldt Foundation's global target group.

All the Humboldt Foundation's programmes are designed to promote people, not projects. Outlines of the research proposal, which offer the greatest potential for using text-generating AI, are only one element of the application documents in the fellowship programmes. In



accordance with the selection criteria, the proposals are evaluated by subject specialists, especially concerning their originality and innovative strength. In a number of tests the Humboldt Foundation conducted on ChatGPT, it was able to confirm the impression that current AI systems are not able to independently develop a convincing application proposal that meet these criteria.

As other, equally important criteria (including career history and previous scientific performance) based on other documents (e.g., curriculum vitae, key publications) also determine the selection decision, the Foundation identified no significant risk of misuse of generative AI in the application process in the sense of a potentially successful attempt to intentionally deceive. To further improve the basis for the decision-making, hosts are asked to describe in their statements how they came into contact with the applicant and the research proposal as this process may give insight into the applicant's personal contribution and thus about the likelihood of an attempted deceptive misuse of AI.

Relevance for the review and selection procedure

To further counteract the risk of misuse, the Foundation will strive even more to ensure that the applicants' innovative strength and creativity are examined intensively and taken into account in the selection committees' decision-making process. In the Humboldt Foundation's view, however, an attempt to prevent the potential misuse of AI by means of a detection of AI-generated texts is neither expedient nor feasible. Firstly, because the Foundation is basically open to the use of AI as a helpful tool, as already noted. Secondly, because the rapid technological progress is calling reliable detection into question. As AI systems continue to be developed, it is to be expected that known shortcomings in current systems regarding logical reasoning and the reliability of source information will be pursued as a priority and quickly rectified. A technical solution would also be invalid as no reliable AI detection software exists as yet, and would quickly become obsolete anyway.



Despite its openness for the use of generative AI, the Humboldt Foundation explicitly points out, that its use is not permitted in the preparation of expert reviews according to the confidentiality of the assessment process. In particular, no parts of the assessment documents may be used as inputs for generative AI tools or any other open web- or cloud-services. Maintaining confidentiality and data protection of the applicant's data is the Foundations highest priority with respect to its own application of AI as well. Also, the Foundation does not intend to replace human subject specialists by AI systems in the selection process.

This would not be justifiable, not least because of the critical, as yet unresolved problem of the reproduction of bias and stereotypes by AI. Instead, the selection department is exploring whether and how AI can support an equitable, case-by-case selection and deliver additional information that would further underpin the selection decision.

It should also be mentioned that, in a different context, the Humboldt Foundation is currently piloting an alternative review system, the peer-circle procedure. Under this collaborative procedure a group of academics reviews applications online and communicates amongst themselves. In this way, comments that are technically unsound or inconclusive can be challenged directly. It is conceivable that a potential misuse of AI would be recognised more easily during this discourse. This would, however, have to be analysed specifically, which in turn assumes well-founded (scientific) knowledge about the possibilities of use and misuse of AI in science.

Conclusion

Generative artificial intelligence certainly has an impact on the academic system and its self-image. The best approach for science organisations is to support the positive effects of this influence and prevent foreseeable negative consequences as far as possible. To do so, the Humboldt Foundation is reinforcing the strengths of its selection procedures and continually developing them in order to

future-proof itself. Against this backdrop, we are continuing to monitor the development of AI technologies and to share experiences with other science organisations and subject specialists so that, based on sound, factual knowledge, any potentially necessary decisions can be made.