

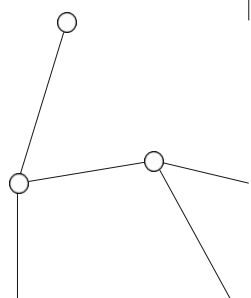


Managing generative AI in the Alexander von Humboldt Foundation's selection area

Since the introduction of ChatGPT at the latest, generative artificial intelligence has been increasingly shaping the science 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 clear that an informed and responsible approach to AI is needed, in the knowledge of its possibilities and limitations.

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 science system that is dominated by English 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 package in the fellowship programmes. In accordance with the selection criteria, the proposals are evaluated by subject





specialists, especially with regard to 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 does not believe that there is any significant risk of misuse of generative AI in the application process in the sense of a promising attempt to intentionally deceive.

Nevertheless, in order to counteract this risk further, in future, the Foundation will strive even more to ensure that the applicants' innovative strength and creativity are examined intensively and taken into account when the selection committees make their decisions. To improve the basis on which decisions are taken, hosts will be asked to describe in their statements how they came into contact with the applicant and the research proposal as this process may deliver information about the applicant's own performance and thus about the likelihood that an abuse attempt is being made.

In the Humboldt Foundation's view, however, an attempt to prevent the potential misuse of AI by means of a recognition of AI-generated texts is neither expedient nor feasible. Firstly, because the Foundation, as already noted, is basically open to the use of AI as a helpful tool. And, secondly, because the rapid development of the technology makes reliable recognition a questionable criterion. Thus, as AI systems continue to be developed, it is to be expected that known shortcomings in current AI systems with respect to 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 recognition software exists as yet and would quickly become obsolete anyway.



With regard to its own selection activities the Humboldt Foundation is also open to the use of artificial intelligence. This does not mean replacing human subject specialist 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 an AI system could 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.

Generative artificial intelligence certainly has an impact on the science 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.