

Guidelines for the use of artificial intelligence-based systems at the University of Debrecen

Artificial intelligence (AI) refers to information technology systems or their underlying components (algorithms, programs, etc.) that are capable of imitating or simulating behavior similar to or superior to human intelligence. Among AI systems, generative methods stand out in terms of scientific communication, as they have been developed to create content in various modalities (e.g., text, images, moving images, sound).

AI-based systems should be considered the defining technology of the coming century, already having a significant impact on the life of higher education institutions. These effects are expected to become even more intense in the future in the areas of university education, learning, and research.

AI technology can be a powerful tool for enhancing the learning experience of students and helping researchers achieve their scientific goals, but its inappropriate use can have a negative impact on the quality of learning and scientific research.

The purpose of this position paper is to support researchers, educators, and students in avoiding misuse by setting out common guidelines and a general regulatory framework, and to ensure that the benefits of AI technology are realized in education and research.

We encourage the use of AI

In light of the above, the University of Debrecen is open to new technology, follows its development trends, and encourages the use of AI tools in both teaching and research processes. At the same time, it stipulates as a fundamental requirement that AI-based systems must always be used in a responsible, ethical, and transparent manner.

In line with the relevant guidance from the European Commission¹:

- the University actively supports the responsible use of AI through guidance and training. acquiring the necessary competencies among teachers, researchers, and students,
- monitoring technological developments and methods of application in educational and research processes,
- supports open and honest communication with the participation of teachers and students regarding the transfer of knowledge related to AI technologies, experiences of their practical use, and the regulations to be developed,
- supports the acquisition and use of reliable and relevant AI technologies.

¹ https://research-and-innovation.ec.europa.eu/document/2b6cf7e5-36ac-41cb-aab5-0d32050143dc_en

AI in the educational and research process

The University of Debrecen classifies the discipline-specific provisions for the use of artificial intelligence in education and research under faculty regulations.

In accordance with the principles of this position statement, faculties may specify the criteria for appropriate and inappropriate use for teachers, researchers, and students.

The manner of using artificial intelligence in education may be specified in the faculty annex to the DE Study and Examination Regulations, while the manner of using it in research may be specified in separate faculty regulations, which must be submitted to the Rector's and Chancellor's Cabinet for consultation prior to adoption.

Students are responsible for using AI technologies in accordance with the conditions and methods specified by faculty regulations. Failure to do so will be treated as plagiarism.

Within the framework of faculty regulations, instructors themselves determine whether they allow, support, or prohibit the use of AI in their courses, activities in their courses.

General principles

- The author is fully responsible for the content they create. This responsibility extends to the accuracy, authenticity, and compliance with relevant regulations of sections of scientific publications, student theses, and other content (e.g., lectures, presentations) created with the support of AI.
- AI technology should only be used as an aid in both the scientific research process and the fulfillment of student training requirements. When using AI technology, its risks and limitations (e.g., hallucinations, inaccuracies, uncertainty of dubious results) must be taken into account.
- When using AI, scientific ethical standards and relevant regulations must be observed at all times.
- Developers of services based on generative AI models use the input data to train the technology, so it is extremely important to protect intellectual property and not to provide personal, sensitive, or confidential information or data when using the models.
- The use of AI must be communicated in a transparent and detailed manner in accordance with the principles of open science: the name of the tool used, its version, the purpose of its use, the information entered (prompt), and the information obtained. In the case of scientific works, it may be appropriate to allow varying amounts of AI use depending on the field. When evaluating a work, it is always advisable to check whether, in the case of AI use, the author's added value and the work invested are sufficient for the work to be considered the author's own work.
- Unlike traditional plagiarism detection, accurately detecting the use of AI tools is quite difficult when doubts arise about an author's work. This can be determined using AI-based tools, whose manufacturers also indicate that these tools can make mistakes. Furthermore, AI-based systems are constantly evolving to make AI-generated content as similar as possible to human-generated content in an attempt to deceive machine checkers. If human checks cannot conclusively prove that the content is AI-generated, it is less

ethical to impose sanctions based on this, so we must proceed with extreme caution in all faculty regulations

- .
- Instead of sanctioning AI-generated content, it may be more valuable to verify that a given work is indeed the work of the author. The simplest way to do this may be to check the author's preparedness more thoroughly in relevant cases, e.g., by asking more in-depth questions about their knowledge of the work when defending a thesis. At the same time, it may be worth reconsidering the formal requirements for authors' works, placing less emphasis on the presentation of more general parts and instead requiring a more concise format that showcases the author's substantive work.