RECOMMENDATIONS REGARDING THE USE OF GENERATIVE ARTIFICIAL INTELLIGENCE

for university educators

Recommendations for instructors at universities: artificial intelligence as a tool for instruction and considerations relating to learning outcomes

Artificial intelligence (AI) learns from a large quantity of training data, including educational literature. This is why it is able to propose more or less sophisticated approaches for various educational situations and other activities of a university instructor. It can create didactic variations of task assignments or differentiated levels of difficulty, reformulate tasks according to requirements, propose evaluation criteria, design presentations for lectures, summarize materials for students, and prepare sample sentences or tasks on a specific topic. It is an infinitely patient partner for developing and refining your ideas and can also take on the role of a test student.

The use of AI in many branches of human activity is likely to significantly change life in our society and affect the performance of many professions. Hence, you should think about what the goal and content of education should be and to re-evaluate the expected learning outcomes and teaching and evaluation methods.

■ OPENNESS TO INNOVATION

Monitor developments in AI tools and spend some of your time exploring their capabilities. Check out what they can do, how they can benefit your work, and how reliable they are or aren't. Personal experience is irreplaceable. Actively use these tools where appropriate. Encourage students to use AI tools while respecting their varying levels of knowledge and skills. Share your experiences with your colleagues, inspire, and be inspired. If you're not sure about something, don't be afraid to ask for help. Look for opportunities to further your education. Familiarize yourself with the *glossary of basic AI terms* and explore *different applications* that can be used in teaching.

■ RESOURCEFULNESS

Think about how to integrate AI tools into your teaching and combine them with other teaching methods. Be prepared to change these methods on a continual basis and to adapt to developments and examples of good practice. Introduce the possibilities and limits of AI to students and discuss the appropriate combinations of tools to achieve established goals. Together with colleagues and students, look for ways to best use AI tools in teaching and other university activities. With colleagues and students, repeatedly reflect on the impact of using the ever-evolving AI in your field and in society as a whole.

■ TRANSPARENCY AND HONESTY

Familiarize students with the basic principles of academic integrity, not only while using AI tools. Recommend ways for students to declare the use of AI tools in their work (e.g. according to the *recommendations of Elsevier publishing*). Be a good role model for students in using AI. Show them ethical ways of using it. Demonstrate to students that you care about their (self)development and the authentic results of their own work rather than perfectly polished academic texts. Clearly acknowledge the personal contributions of students.

■ RESPONSIBILITY

Explain to students that AI is a tool that is always used by a specific person – and that person is responsible for what goals they use it for. In discussions about AI with colleagues and students, advocate for a responsible approach to the use of AI. A responsible approach to AI in the context of teaching at a university also means re-evaluating educational goals and expected learning outcomes in study programmes and in individual courses so that graduates can thrive in a world that will be even more significantly influenced by AI in the future.

■ RESPONSIVENESS AND CLEAR RULES

Clearly formulate the conditions under which you consider the use of AI tools by students to be appropriate for studying, homework, or during the creation of written assignments. Provide students with opportunities to develop skills through the use of AI tools by assigning specific tasks. Guide students in acquiring competencies that will be increasingly important for their future careers. If you decide not to recommend or to prohibit the use of AI tools, clarify your decision to students. On the other hand, if you actively use AI in preparing and implementing instruction at the university, inform students about it so that they can be inspired by your experiences.

■ PRAGMATIC APPROACH

Use AI tools to improve instruction. Adapt teaching methods and the assessment of students' academic performance to AI developments. Where possible and useful, consider replacing written work with other forms of work. When evaluating students' written work, place more emphasis on monitoring the process of creating the work and presentation of their written work. Distinguish when it is appropriate to use AI for tasks and when it is not. Adapt the assignments accordingly. Explicitly explain why you want or do not want students to use AI.

■ RELATIONSHIP WITH STUDENTS

By using AI tools, you entrust their providers with a range of information that can be of a sensitive nature. Thus, be very careful when working with specific AI applications. Demonstrating the unacknowledged use of AI tools is very problematic. It is not and will not be possible to clearly prove that students have used AI in an unethical manner. Tools that promise otherwise are not trustworthy. Hence, it is better to prevent such situations. Approach students in a way that they are not afraid to make mistakes, monitor their progress, and provide support in learning academic skills. Create an environment of mutual trust. Avoid suspicion and accusations. Set appropriate learning goals. Build a positive relationship with your students. Base your authority on your expertise and insight, not on fear and unattainable demands.