



# GUIDE

## ON THE USE OF ARTIFICIAL INTELLIGENCE-BASED SYSTEMS

The guide was prepared in cooperation with the KRE ICT Research Centre, the Committee on Artificial Intelligence in the Educational Structure of Károli Gáspár University of the Reformed Church in Hungary and the Education and Research Development Working Group and Mentor Network.

**The Guide was adopted by the Senate of the Károli Gáspár University of the Reformed Church in Hungary by resolution No. 63/2024 (VI.27), effective from 28 June 2024.**

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Prof. Dr. László Henrik Trócsányi (sgd)  
Rector

## 1 General Guidelines

Károli Gáspár University of the Reformed Church in Hungary is committed to value- and knowledge-based, community-building education, in line with its objectives and the mission of the Reformed Church in Hungary, the Maintainer of the University. At the same time, the University places a high priority on providing its students with the knowledge, expertise and skills that will enable them to work effectively in our country and in the world, and to become successful adults and employees who can succeed in their profession. They can only meet these challenges by possessing the most modern methodologies, technological developments and competences in their field.

Artificial intelligence (AI)-based systems have become part of our everyday lives, and therefore the University aims to ensure that our students are aware of the opportunities available through AI, acquire the necessary competences and are able to apply them in a responsible manner. The University remains committed to the importance of knowledge and independent performance, while at the same time promoting the conscious, careful and responsible use of AI-based technologies.

The University sets strict guidelines for the use of AI-based technologies to ensure ethical educational and research activities. The guidelines for scientific integrity, ethical procedure and responsible use are summarized in this document.

The University follows the technical and regulatory changes in the field of AI and AI-based technologies, and considers the relevant national regulations to be applicable. Accordingly, it periodically updates its internal regulations to ensure that they are in line with the current legal and ethical requirements.

The University supports students in acquiring competences related to the use of AI-based technologies. By making subjects, courses, programmes, workshop events available, it ensures the acquisition of the necessary competences, while emphasising ethical and responsible use.

When using AI-based technologies, particular attention should be paid to independent work, compliance with national and international scientific requirements, disciplinary specificities and university rules.

**The use of AI shall be documented in all cases.** All materials (documents and other medial content) shall be accompanied by documentation that provides a verifiable record of the use of AI. This transparency contributes to maintaining scientific integrity (see details in point 3).

**The author is responsible for the content (correctness and errors) of materials (documents and other medial content) created by using AI-generated content.**

In the case of misuse with AI systems, the rules on plagiarism shall apply.

The University strongly condemns the unethical and unfair practice.

The faculties and institutes may draw up discipline and profession-specific requirements, and compliance with these is obligatory for all concerned (lecturers, researchers, teachers, non-academic staff and students).

Compliance with these guidelines is essential for the University's scientific community to use AI-based technologies in a responsible, ethical and innovative way.

## 2. Concepts, characteristics of use and ethical considerations

### 2.1. Definition

Basic summary information on AI is provided by the Parliamentary Information Note, 2019 (Rajzy, 2019). The detailed, operative definition may be read in the work of Horváth (2024) who provides the opinion of the European Committee (in Hungarian translation) in this field.

*“Artificial Intelligence (AI) systems are software (and possibly also hardware) systems designed by humans that, given a complex goal, act in the physical or digital dimension by perceiving their environment through data acquisition, interpreting the collected structured or unstructured data, reasoning on the knowledge, or processing the information, derived from this data and deciding the best action(s) to take to achieve the given goal. AI systems can either use symbolic rules or learn a numeric model, and they can also adapt their behaviour by analysing how the environment is affected by their previous actions.” (HIGH-LEVEL EXPERT GROUP ON ARTIFICIAL INTELLIGENCE, 2019.6).*

For the purposes of this guide, it is worth defining the **generative AI technology** in more detail. **Generative AI technology** is a technology that (i) uses the deep learning models in order to (ii) create human-like content (e.g. images, words) and as a response to (iii) complex and diverse commands (prompts, e.g. languages, instructions, questions). The generative AI uses natural language processing to analyse textual (possibly image- or sound-based) input content of word input, and then produces content that is very similar to human content from the elements based on probability (Lim and mtsai, 2021, comp. Rajki, T. Nagy, Dringó-Horváth 2024).

It is mainly the latter form that facilitates the possibility that the principle of academic integrity may be violated due to improperly integrated use (see article 3.1) and that content generated by AI tools may lead to misuse (e.g. plagiarism).

### 2.2 Fields of use and ethical considerations

In higher education, the use of AI applications is – and is expected to increase – typically **for collecting and analysing resources, drafting, analysing data, stylistic correction, translation and generating images, graphics and presentations**. Fields of use and recommendations for AI tools compiled and regularly updated are available in: [MI-tolltartó](#).

In all **ethical considerations** concerning the use of AI, this Guide and any other related faculty, institute and departmental regulations should always be taken into consideration. Based on the

recommendation of the lecturer, the subject supervisor decides on the use of AI in tasks and assessments related to the subjects and courses, and the way of documenting the approved use of AI. This should be made clear and understandable to the students in advance (in the description of the given assignment and the curriculum and in the subject or course description, example: Appendix, 6.1.6). Unauthorized use is considered an infringement. For recommended forms and conditions of use (reference) and the consequences of unethical use, see article 3.

For an ethical point of view, the **protection of personal data** is especially important in the use of AI. If students, lecturers, researchers, teachers and non-academic staff process materials (questionnaire responses, student work, institutional database etc.) containing personal data using AI (analysis, evaluation, summary), **only institutional applications may be used, logged in with a KRE license**, where the uploaded data remain in a closed system within the institution (e.g. Copilot, Turnitin). When using any other application, we may transfer personal data to a third party.

If any employee of the University requires the use of an external AI application, it is always advisable to notify the University through the relevant organisational unit and the University will decide on the possible purchase, subject to the availability of funding.

As regards the **issue of copyright**, AI applications are not considered to be authors, as they do not have legal personality. However, it is important to pay particular attention to the following:

“There is a very high risk of plagiarism in the use of generative AI e.g. in the field of textual material, where in many cases the response to a specific prompt may contain material that is protected by copyright, in whole or partly – in this case, anyone who publicly uses it (regardless of whether he/she claims it as his/her own or indicating that it is the product of AI), may be liable for copyright infringement.” (Beraczkai, 2024).

Therefore, it is fundamentally important not to use generative AI applications for works presented as full work of authorship, but only for subtasks or sub-activities.

## 3. Guidelines for effective and ethical AI use

### 3.1 Course design, measurement and evaluation guidelines

Foreign and Hungarian higher education recommendations on AI that have been published so far, almost without exception, recommend **the integration (and not the prohibition)** of AI within well-thought-out frameworks and regulations. The University supports the continuous mapping of the appropriate integration of AI. In order to ensure meaningful integration and prevent the possibility of unethical use, it is helpful to consider the following:

#### **Learning outcome-based planning:**

It is recommended to **redesign** the subject curricula within the study programmes **on the basis of learning outcomes** in response to the new situation: the emerge of AI is transforming market demands and the competences required and expected of employees<sup>1</sup>; within the subject curricula, there is a need to emphasise the need for students to acquire additional knowledge and skills of students beyond the possibilities offered by AI systems. Building on these learning outcomes, it is necessary to transform the subject curricula within the study programmes – with a great emphasis on the relevant skills, attitudes, student autonomy/responsibility that can be acquired in the framework of the study programmes and courses at the University – and to give preference to tasks requiring higher cognitive processes. In the training programmes, it is necessary to include learning activities and curricula that are relevant to these and that can be appropriately measured and evaluated.

#### **Reconsideration of the way and form of assessment:**

The criteria, modes and forms of assessment and evaluation need to be adapted not only to the measurement and evaluation of learning outcomes, but also to the situation triggered by the AI: if the form of assessment is such that it can be replaced by one or more appropriately used AI-based tools, then **the way and form of assessment should be reconsidered**.

In order to reduce the unethical use of AI and to support its proper integration, the following points should be considered **for the definition of tasks and the reconsideration of the assessment and evaluation system**:

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<sup>1</sup> The OECD study “Artificial Intelligence and the Labour Market”, 2023, says that, occupations at highest risk of automation account for about 27% of employment, i.e. AI threatens the survival of workplaces. (Source: <https://www.oecd.org/employment-outlook/2023/>)

- **Tasks requiring creative and critical thinking:** tasks requiring deeper application of knowledge, creative approaches and critical thinking – e.g. research questions with personal relevance or essay topics focusing on problem-solving – are more difficult to replace with content generated by AI alone.
- **Interdisciplinary and applied projects:** project tasks requiring real problem solving and an interdisciplinary approach are difficult to automate and require a high-level personal involvement.
- **Incorporation of reflection and self-evaluation:** as part of the tasks, it may be required to reflect on the students’ learning process and evaluate the use of generative AI tools to enhance knowledge. This can help to develop independent thinking and learning.
- **Personalised and varied tasks:** personalised tasks avoid repetitive and easily generated responses. Variety and individuality make it difficult to use generative AI.
- **Ensuring equal access:** AI users can have an advantage over those who do not have access to the tools or do not use it for other reasons. It is therefore worth choosing the tools together, to develop the appropriate basic competences and a common ethical framework for use.
- **Tutor self-checking:** it is worth checking the assigned task: if the tasks can be solved with one or more AI application combined in the right way to the required extent, it is worth rethinking and adapting the task assignment accordingly.
- **Multimodality:** during the evaluation and assessment, the focus should be laid on the application of knowledge and not on the recall of lexical knowledge. Consequently, it may be worth moving away from written form of assessment towards a multimodal approach (video, audio, poster, webpage, installation and a combination of these).
- **Setting an example:** we can help students to use the AI in an ethical and practical way by giving them an example in class: showing them how and what it can be used effectively, and what other tasks they need to do themselves (e.g. collection of sources and basic data analysis, interpretation, critical evaluation, clarification, addition, completion of results, searching for additional sourcing, contextualisation etc.).

For longer written works, such as **essays, assignments, homework, theses, portfolios, papers to be submitted for the local and national conference of the Scientific Students’ Association**, it is recommended

- to formulate project-based tasks similar to the above, requiring critical thinking and reflection;

- to appropriately indicate the use of AI in the cases and in the way described in article 3.2; and
- to test the knowledge in a related, more focused oral part of the exam, with the help of questions not agreed in advance related to the submitted paper (weighting 40%-60% / 30%-70% in favour of oral exams).

### 3.2 Marking and referencing products made with artificial intelligence

The following specific recommendations are based on the comprehensive AI recommendations published so far, both nationally and internationally (comp. Caulfield 2024, ELTE PKK 2023, DE BTK 2023, Rajki, T. Nagy and Dringó-Horváth 2024).

**As a rule of thumb, AI use should be indicated where the use of non-AI tools and aids should also be indicated, examples of which are shown in Table 1.**

**Table 1: Indication of possible sources related to activities**

activity	markable non-AI support	markable AI support
collection of sources	Google Scholar	Elicit, Research Rabbit
data analysis	Excel, SPSS	ChatGPT, CoPilot
data visualisation	Excel, SPSS	ChatGPT, CoPilot
proofreading	name of person	Deepl, Quilbot, CoPilot
illustration, image	Freepik	DALL-E
translation	name of person	Deepl, CoPilot, ChatGPT
professional interview, conversation	name of person	CoPilot, ChatGPT, CharacterAi

Ethical rules for scientific writing shall apply to the **marking of products made with AI**, including generative AI tools (e.g. ChatGPT, CoPilot, Gemini). **Specific examples and recommended indications** for each use are shown in **Appendix 6.1**. If required (taking over the entire generated content without changes), the following style recommendations are available for the regular display in the bibliography: [APA](#); [MLA](#); [Chicago](#).

In addition to the indication methods detailed above and shown in the examples, the student does not need to make a specific statement about the form and extent to which he/she has used AI applications in his/her work.



### 3.3 Legal consequences of unethical, infringing use of AI

If the tutor (as evaluator) suspects that the student (as author) is trying to present the result generated by the AI as his/her own work, the University's plagiarism rules shall apply (see introduction). The provisions of the University's Academic and Exam Regulation, Part III of the Student Requirement System, the Doctoral Regulation and Code of Ethics shall apply to the determination of student plagiarism and the applicable legal consequences.

If an employee of the University uses an AI tool in an unethical or unlawful manner, he/she may be subject to proceedings under the Code of Ethics and may face consequences under the employment law.

## 4. Tools and trainings for the detection and effective use of AI at KRE

**Mapping the international higher education scene**, and referring to the communication published by Open AI (the developer of the ChatGPT) at the end of August 2023 (Educator FAQ)<sup>2</sup>, which answers the questions of the education sector, we can conclude that: although there are many AI detectors on the web and even Turnitin, a paid plagiarism checking software has developed an AI detector plugin, it can clearly be said that it is **not reliable and its results cannot be used as evidence for a conviction**.

Therefore, the **Turnitin** purchased by the University is only partially capable of detecting AI-generated texts. According to its operational principle, it can distinguish between texts created by humans and by machines based on linguistic features. The detector only gives a percentage value for the possible use of AI for texts between 300 and 15000 words in English, but cannot be used for penalty purposes under the software's policy (see Appendix). The Turnitin website also warns that if the AI-detected text is below 20%, this could be a false finding.

**The Turnitin application can currently detect the following:**

- Showing a text match – however, it is the teacher's responsibility to check whether the result is correct (as it will mark all matches in percentage, including the verbatim and substantive citations marked correctly by the student or elements of the bibliography).
- In the similarity report, percentages are accompanied by colours to indicate the text match rate for the total content of the text: **blue – 0%**, **green – 1-24%**, **yellow – 25-49%**,

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<sup>2</sup> source: <https://help.openai.com/en/collections/5929286-educator-faq>

orange – 50-74%, red – 75-100%. For understandable reasons, the AI user guide does not address the consequences of plagiarism validated by the teacher.

The University provides both **technical** (use of AI tools) and **pedagogical-methodological training** (learning outcome-based design approach, education planning for active learning, assessment system planning etc.) for the University's teaching and research staff and non-academic staff through the KRE ICT Research Centre. The trainings follow the University's quality assurance guidelines, and participation in the courses is included in the teaching performance evaluation system (Károli TÉR).

In line with the recommendation, the **ICT Research Centre** offers the **following training workshops and courses** in response to the current challenges that are constantly being addressed through AI developments:

- Learning outcome-based course design
- Integrating artificial intelligence into teaching and learning practice
- Artificial intelligence in evaluation – reconsidering our evaluation
- Prompting techniques
- Turnitin – plagiarism detecting software training
- Essay and thesis writing in the age of AI
- Translation and language work using artificial intelligence

Detailed programme descriptions can be found in the interactive training portfolio, and information on specific related training courses are available on the Ozone course administration interface.

## 5. Bibliography

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## 6. Appendix

### 6.1. Examples of references to the use of AI

#### 6.1.1 Example of source marking

To develop our search strategy, we used keyword searching in the KRE Library database to explore the literature. Our search keywords were ....” “ AND “ “ OR

In addition, the following search question was entered into the *Elicit* AI-based programme to explore further sources.

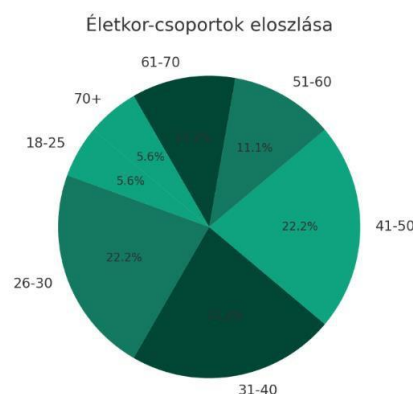
For our manual search, we used the *Research Rabbit* application in order to explore additional highly cited articles relevant to the current topic.

On the basis of *SciteAI*, we identified the most cited sources, and based on this, the sources that were cited at least 5 times were included in our research.

#### 6.1.2 Example of data analysis

Age	18–25	26–30	31–40	41–50	51–60	61–70	70+
Number	4	4	5	3	0	0	0

*Figure 1 Age distribution (own ed. made with ChatGPT)*



*Figure 2 Age distribution (own ed. made with ChatGPT)*

#### 6.1.3 Example of proofreading, translation

English text: „Artificial Intelligence (AI) systems are software (and possibly also hardware) systems designed by humans that, given a complex goal, act in the physical or digital dimension

by perceiving their environment through data acquisition, interpreting the collected structured or unstructured data, reasoning on the knowledge, or processing the information, derived from this data and deciding the best action(s) to take to achieve the given goal.”

Hungarian translation: „A mesterséges intelligencia (AI) rendszerek olyan emberek által tervezett szoftveres (és esetleg hardveres) rendszerek, amelyek egy komplex célt kitűzve fizikai vagy digitális dimenzióban cselekednek azáltal, hogy adatgyűjtés révén érzékelik környezetüket, értelmezik az összegyűjtött strukturált vagy strukturálatlan adatokat, következtetnek az ezekből az adatokból származó ismeretekre, vagy feldolgozzák az információkat, és döntenek az adott cél eléréséhez szükséges legjobb cselekvés(ek)ről.”

(High-Level Expert Group on Artificial Intelligence, 2019.6., Translated with www.DeepL.com/Translator - free version)

#### 6.1.4 Example of illustrations, image generation



*Figure 3 AI helps to write the paper (source: own ed. using DALL-E image editor)*

#### 6.1.5 Example of generating case study, text example

This example shows the generation and use of a professional interview.

The interview was recorded with ChatGPT, so this is rather a hypothetical conversation. The instruction given to the ChatGPT is: “Talk to me as if you were a school psychologist” (generated on 25 April 2024).

The full text of the conversation is available: <https://chat.openai.com/share/8ad3f3ce-c7a9-439c-a406-0670bf6977ab>

*“As a school psychologist, I encounter many different types of problems, which vary depending on individual differences. Some common issues that students come to me with include:*

- **Anxiety and stress:** *many students struggle with stress caused by school pressures and expectations, including concerns about exams, performance and relationships with classmates.*
- **Learning difficulties:** *some students have learning difficulties, such as dyslexia or attention deficit hyperactivity disorder (ADHD) which can affect school performance.”*

#### 6.1.6 Example of display in a subject or course description

The use of (generative) AI is allowed for the preparation of assignments to be submitted for subjects or courses, provided that the appropriate referencing rules are used (see Statement on the use of artificial intelligence-based systems at the University).

Recommended fields of use: data and source collection, linguistic stylisation, proofreading, sketching, image and figure generation.

For any AI use or content generation, it is the student’s responsibility to critically evaluate the results. It is important to draw students’ attention to this!

AI use	Recommended sentence for the task/course description
may not be used	The aim of the subject or course is [fill in the blank] to develop competences, so it is important not to use AI-based tools in solving the assignment at this stage of learning.
	The use of AI is not relevant to the subject or course.
may be partially used	The use of AI is allowed for the assignment, but one-to-one transfer of AI generated content is not allowed.
	The following AI applications are allowed for the assignment: [fill in the blank] (e.g. source manager: Elicit, Deepl translator)
	The use of AI is allowed in the following work processes: [fill in the blank] (e.g. image generation, data visualisation)
	An AI generated source can be used for the assignment if it is accompanied by a student reflection.
	Any AI application can be used to prepare the assignment (see the University’s Statement for marking)
its use is mandatory	The following AI application must be used for the assignment: [fill in the blank] (e.g. plagiarism filter)

## 6.2 Turnitin statement on the AI detected results

How much of this submission has been generated by AI? ⓘ

**\*19%**

of qualifying text in this submission has been determined to be generated by AI.

\* Low scores have a higher likelihood of false positives.

Our AI writing assessment is designed to help educators identify text that might be prepared by a generative AI tool. Our AI writing assessment may not always be accurate (it may misidentify both human and AI-generated text) so it should not be used as the sole basis for adverse actions against a student. It takes further scrutiny and human judgment in conjunction with an organization's application of its specific academic policies to determine whether any academic misconduct has occurred.