



# Guidelines for the Responsible Use of Generative AI in Teaching and Learning

## Background

Artificial Intelligence (AI) includes a diverse array of technologies that can perform tasks or behave in ways that are regarded as 'intelligent.' The Organisation for Economic Co-operation and Development (OECD) defines AI as a 'machine-based system that can make predictions, recommendations, or decisions based on human-defined objectives, with varying degrees of autonomy and impact on real or virtual environments.'

In recent years, AI progressed rapidly, particularly with the development of the so-called Large Language Models (LLMs). These models have ushered in the era of generative AI, which refers to AI systems that can automatically create various types of content, such as text and images, based on prompts given in natural language through conversational interfaces. With the launch of ChatGPT in November 2022, millions of people gained access to a generative AI system, leading to high expectations for the potential of this new technology. Shortly after, ChatGPT, developed by OpenAI, was joined by other LLMs such as Anthropic's Claude, Google's Gemini, and Microsoft's CoPilot, among others. At the same time, several other LLMs focused on generating images, music, and videos from textual descriptions were also being developed. Notable examples include DALL-E (by OpenAI), Midjourney, Pictory, and Boomy.

Recent advancements in generative AI have created new opportunities in education. These developments are supported by the introduction of various applications and plug-ins that enhance the capabilities of existing programs, such as search engines, presentation software, and automatic translation tools.

While the promising opportunities presented by these tools are noteworthy, their use raises important questions about what it means to use them responsibly, particularly in education. Therefore, it is essential to develop a strategic vision that defines what constitutes appropriate usage of these tools in teaching and learning.

These guidelines are designed to **promote the responsible and constructive use of generative AI systems**<sup>1</sup> by faculty and students, while also highlighting the associated opportunities and risks. Specifically, the guidelines offer a framework for understanding what the university considers to be a responsible and thoughtful use of these technologies and they provide operational guidance for both educators and learners. Additionally, a set of good practices and use cases is presented to encourage creative exploration of these technologies in alignment with the university's guiding principles.

These guidelines are meant to be periodically reviewed and updated to ensure relevance to technological, cultural, and social changes.

### *Target group and areas of application*

These guidelines regarding the potential use of AI tools in teaching and learning are intended for **faculty and students**. They apply to all forms of AI, regardless of the type of input and output, with a particular focus on commercial applications. Additionally, the guidelines address experimental activities aimed at exploring innovative teaching and learning methods, such as scenario generation, synthetic data creation, questionnaire processing, and communication.

When using artificial intelligence tools (generative or otherwise) in education, it is essential to comply with current legislation, in particular, that of the European Union on artificial intelligence (EU AI Act<sup>2</sup>). This legislation prohibits the use of AI tools that pose an unacceptable risk to humans. It also defines specific requirements and obligations for high-risk applications and those that may compromise transparency. Generally, it is advisable to consult and strive to adhere to the *Ethic Guidelines for Trustworthy AI*<sup>3</sup> and the University Code of Ethics<sup>4</sup>.

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<sup>1</sup> From here on, the use of the term Artificial Intelligence or AI will refer specifically to generative AI.

<sup>2</sup> Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act) <https://eur-lex.europa.eu/eli/reg/2024/1689/oj>

<sup>3</sup> Directorate-General for Communications Networks, Content and Technology (European Commission), *Ethic Guidelines for Trustworthy AI*, 2019, <https://op.europa.eu/s/z1nh>

<sup>4</sup> Ca' Foscari University of Venice Code of Ethics and Conduct <https://shorturl.at/2mHOF>

## General Principles

**Ca' Foscari University is committed to fostering innovation by developing the skills needed to tackle emerging global challenges**, particularly those associated with digital transformation. Instead of prohibiting the use of AI tools in education, it is essential to encourage a **mindful and constructive approach**. To achieve this, the University has established guiding principles for the responsible and innovative use of AI in teaching and learning.

- 1) *Originality and freedom of thought* are essential values in academia. A university is a place where individuals develop their ability to think and act freely and originally. While AI tools can serve as helpful aids, they should never replace one's intellectual work. Critical thinking, originality, and personal contributions to knowledge are fundamental in academic settings.

It's important to recognize that the outputs generated by AI tools may not be trustworthy, as they can be based on inaccurate or false information. Therefore, these outputs must be verified against scientific literature and evaluated by experts in the field. Additionally, AI-generated content often reflects only a limited perspective, failing to consider minorities and regions that are excluded from digital development.

Ultimately, **learners and lecturers bear full responsibility for their work**, including any use of AI, particularly concerning issues of privacy and copyright.

- 2) *The key role of human relations and dialogue*. Human relations, exchange and dialogue between students and faculty are absolutely crucial for any personal development. Interaction with an AI tool cannot and must not replace conversation with teachers and tutors. Moreover, the use of AI in education is meant to enhance (not diminish) students' interpersonal skills by encouraging opportunities for peer collaboration and mutual exchange.

- 3) *Data protection and transparency*. All content submitted to communicate with AI systems may be used by these systems for their training purposes. Therefore, it is essential to be cautious about the information shared with AI systems, to minimise the risk of unauthorized processing of personal data. The user of the tool is responsible for ensuring compliance with the European

General Data Protection Regulation (GDPR) (EU Regulation No. 2016/679). Specifically, users must assess the need to implement any necessary measures, possibly with the assistance of the Data Protection Officer (DPO) and their staff.

- 4) *Intellectual property.* AI systems are trained using vast amounts of data, often collected from the internet without the authors' consent. It is important to recognise that the output generated by AI tools may infringe on the intellectual property rights of third parties. Additionally, providing original content that has not been disclosed—such as proposals for funding bodies, unpublished works, or original lectures—can increase the risk of such material being reused by the AI, potentially leading to unauthorised appropriation or dissemination. Finally, it is crucial to consider that any content created by AI—whether text, images, code, or other—could be reused to train other AI systems, resulting in further potential risks regarding copyright and the protection of original works.
- 5) *Equity and the right to study.* It is better to use AI tools that do not require students to purchase licenses, to avoid creating or exacerbating educational inequalities and barriers.
- 6) *Sustainability.* The university promotes the responsible adoption of AI in compliance with sustainability goals. It is essential to consider the environmental impact of AI applications, particularly regarding energy consumption related to training and task execution (inference). Therefore, the use of these tools is recommended only when they provide genuine added value.

The university is committed to developing and promoting:

- *Faculty training.* Specialised training programmes for faculty to enhance their understanding and awareness of the use of generative AI in teaching and research. The goal is to equip educators with the necessary tools to effectively integrate these technologies into educational processes, thereby expanding learning opportunities.
- *Development of students' competencies.* Courses and workshops will be developed for students to enhance their AI skills. The goal is to provide both

technical and practical knowledge about using generative AI, with a particular emphasis on the ethical and responsible application of this technology.

- *Pilot projects and interdisciplinary collaboration.* Pilot projects will be encouraged to explore innovative and constructive applications of generative AI in education. These projects will help assess the effectiveness of generative AI through interdisciplinary collaboration.

## **Guidelines for professors**

### *Teaching and assessment*

Generative AI can provide substantial support to teachers in various ways. For instance, it can help create personalised learning paths and interdisciplinary projects. Additionally, this technology can accelerate the development of teaching materials, organise information more efficiently, and offer valuable tools to enhance student engagement and feedback. However, it will be essential to experiment with and develop exploratory projects that utilise AI as a teaching tool, so as to deepen our understanding of its potential benefits and limitations in education.

Teachers should review and, if necessary, adapt their assessment methods. They should incorporate evaluation criteria and methods that allow for distinguishing between a student's original contributions and the support they received from AI tools. For instance, in situations where a task can be easily completed by an AI tool, it is important to include activities such as oral discussions, detailed explanations of logical or practical steps, and questions that require personal insight or critical thinking. This approach can better assess the actual knowledge and skills related to the subject matter.

Students may have unrealistic expectations regarding the capabilities and outcomes of AI. Therefore, teachers should offer clear guidance on how to properly use these tools during tests and activities, explicitly stating what is permitted and what is not allowed in each situation.

Where AIs are anticipated to assist in testing, for example, it is advisable to clarify the rules regarding permitted and non-permitted uses by including notes like those below:

- **Permitted:** use AI tools as language assistants to enhance your texts (e.g., check syntax and terminology). In this case, AI does not add new content.
- **Permitted:** using AI tools as a search engine or for brainstorming, but users should not use the output directly. Instead, they should verify the information through alternate reliable sources and critically assess the results.
- **NOT permitted:** Copy and paste of AI-generated content without proper source verification and re-elaboration.

## *Transparency*

AI tools are 'black boxes': it is not possible to know or analyse the processes that lead to a given output. Therefore, promoting transparency through a critical and mindful approach is essential. To achieve this, teachers could track interactions with the tool. For instance, it would be helpful to document the name of the tool used, the prompts entered along with their corresponding outputs, any prompt engineering techniques applied, the purpose of using the tool, and the strengths and limitations encountered during its use. These measures not only enhance transparency but also help build trust between teachers and learners.

## *AI detector*

There are currently no software tools that can accurately determine if a text was generated by an AI. Therefore, it is unwise to evaluate students solely based on AI detection software, as recent studies show a significant number of false positives.<sup>5</sup>

For this reason, it is crucial for teachers to evaluate students' work based on their individual experiences, skills, and knowledge of the subject. Just like with plagiarism

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<sup>5</sup> On AI detectors performance, see: Dugan, L., *et al.*, "RAID: A Shared Benchmark for Robust Evaluation of Machine-Generated Text Detectors." *Proc. of the 62nd Annual Meeting of the Association for Computational Linguistics* 1, (2024) <https://doi.org/10.18653/v1/2024.acl-long.674>; Elkhatat, A.M. *et al.*, "Evaluating the efficacy of AI content detection tools in differentiating between human and AI-generated text." *International Journal for Educational Integrity* 19, 17 (2023). <https://doi.org/10.1007/s40979-023-00140-5>; Krishna, K., *et al.*, "Paraphrasing evades detectors of ai-generated text, but retrieval is an effective defense." *Advances in Neural Information Processing Systems* 36 (2023). <https://doi.org/10.48550/arXiv.2303.13408>

or unauthorised assistance, educators should familiarise themselves with the characteristics of AI-generated text. They should look for inconsistencies in writing style or complexity that do not align with the author's demonstrated level of knowledge.

Here are some suggestions for detecting the use of AI:

- Look for words, terminology, citations, and theoretical concepts that significantly differ from those used in lectures, the syllabus, or other course materials.
- Check for bibliographic references that cannot be found through traditional sources.
- Identify phrases or expressions that are repeated throughout the text.
- Notice any linguistic patterns or constructions that seem unnatural or out of context.

If you suspect there may be unauthorized use of AI in a student's work, or if there's a strong likelihood of it based on the nature of the assignment, **it is advisable to speak directly with the student**. By asking specific questions about the terminology, bibliography or methodology they employed you can determine if the content aligns with their actual knowledge and understanding.

### *Academic integrity*

The University treats the suspected use of AI tools in the same way as other forms of academic dishonesty, such as plagiarism or unauthorised assistance with tests, papers, or dissertations. If any irregularities are detected, established procedures will be followed according to the University's policies.<sup>6</sup>

## **Guidelines for students**

### *Appropriate and transparent use of AI*

When writing a paper or taking a test or examination, including your final thesis, you should always disclose whether AI tools were used, explaining how they were applied and what results were achieved.

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<sup>6</sup> See: Student careers <https://www.unive.it/pag/8241> [ITA], Thesis guidelines <https://www.unive.it/pag/31196> [ITA], and the Code of Ethics and Conduct <https://www.unive.it/pag/49563>.

AI tools can be helpful during your studies, but relying on them for learning purposes may not always be the best choice compared to traditional methods. Additionally, using these tools indiscriminately can lead to a false sense of security and an overestimation of their effectiveness, known as automation bias. If you do not have a solid understanding of a skill or subject, you may not be able to tell whether the AI tool is providing a correct or adequate answer.

**It is essential to always confirm with your professor or supervisor** whether using AI is allowed, appropriate, and beneficial for the task at hand. **The fundamental principle is that the learner is always responsible for their own work.**

### *Fact-checking:*

An AI system does not truly understand the text it generates; instead, its output is based on the recognition of statistical patterns within extensive datasets. This means that the information produced may contain various errors or could even be entirely fabricated, a phenomenon often referred to as "hallucination." Therefore, it is crucial to critically evaluate the transparency and reliability of the sources that the AI consults. It is advisable to verify citations and compare the output with other materials.

### *Output control*

Training data is often collected from the internet, which reflects its distribution and highlights the most prevalent biases. Minority opinions, which are underrepresented online, become statistically less relevant. As a result, AI outputs—based on these statistical distributions—may lack cultural and linguistic diversity and can produce biased, stereotyped, or unbalanced results.

Therefore, always be careful when you evaluate the output of these tools. The focus should be on ensuring accuracy, respecting confidentiality and privacy, avoiding intellectual property violations, and being mindful of stereotypical or biased information.

## **Possible use examples**

The following are some initial examples of how AI can be used in education. This list is not exhaustive but serves as a starting point for exploring possibilities and sharing effective practices within the Ca' Foscari community.



Before utilising AI tools, it is crucial to assess several key aspects. These include the needs of the teacher(s), the motivation of the student(s), their foundational understanding of the subject matter, and their ability to critically evaluate the trustworthiness of the suggestions and results from the interaction.

Scope of application	Aim	Possible activities	Examples	Opportunities	Threats
Language training	To strengthen the knowledge of a second language.	Engaging learners in conversations  Offer feedback, corrections, examples and analogies in the mother tongue or foreign language.	The teacher could guide learners to interact with the AI on current news items by focusing on specific aspects of learning.  E.g. initial prompt: 'Let us have a conversation about the results of U.S. elections in English, and help me to improve vocabulary, sentence structure, and grammar'.	Point-by-point correction of errors in the text  Precise suggestions to improve vocabulary usage. Please note: it is important to encourage learners to question the tool to understand the reasons for the suggestions and the differences between the words originally chosen and those suggested.  Possibility to compare different options suggested by the tool.	Conversation remains superficial and based on unoriginal ideas.  Learners' passive and uncreative behaviour.  In the case of written conversation, reinforcement is limited to writing and reading.  Weakening of the ability to express opinions during real interactions.  The generated text is inaccurate or inappropriate culturally or contextually, reinforcing stereotypes and bias.
Maths or programming training	Support in learning a formal language, such as a programming	Searching for bugs in codes provided by the lecturer or produced (without aids) by learners  Request for feedback, corrections and counterfactual	The teacher may provide examples of incorrect code, asking learners to identify errors and correct the code with and without the help of AI. Learners could work in pairs (peer-programming)  E.g. prompt 'Examine the following code for a basic computer, indicate any errors,	Correction of specific syntax errors  Receiving feedback on errors and corrections  Comparison between human and automatic analysis  Searching for alternative	Checking the accuracy of feedback and suggestions is discouraged  Hinders learners in learning how to find creative solutions  Decreased ability to remember language syntax  Decreased ability to

		reasoning	and where I can improve the structure.' Further prompts could ask how to modify the code by proposing some variation of the problem (e.g. input data or output required)	solutions to explore functions and constructs not yet solidly acquired by learners	independently find and analyse problems .
Ill-structured problems	Train curiosity and explore new topics	Socratic dialogue with questions leading to the discovery of new knowledge or greater understanding	<p>The teacher might ask to conduct a dialogue on a controversial topic with a philosopher addressed in class.</p> <p>E.g. initial prompt: 'If future generations suffer the consequences of today's environmental actions, how should current needs be balanced against future needs? Should current generations sacrifice themselves for a better world, even at the cost of lower quality of life? What ethical obligations do we have towards the planet and future generations?'</p> <p>Educators can assist in creating a list of progressively challenging questions to serve as examples for adaptation in the prompts.</p>	<p>Opportunities to test acquired knowledge.</p> <p>Encouragement in the creation of 'interesting' questions that fuel conversation and exploration of associated topics.</p> <p>Encouragement for the argumentation of positions and ideas.</p> <p>Opportunities to test the relevance of arguments and perspectives.</p>	<p>Hindering the development of independent thinking</p> <p>Creating responses that are not representative of different viewpoints</p> <p>Decreasing the ability to interact socratically with a human counterpart</p>

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Translation	Guide to a thoughtful and informed use of AI tools for translation.	Engage learners in exercises to identify potentials and limitations of translation with IA.	<p>Teachers may assign texts in which cultural or linguistic specificities cause humans and AI to translate very differently. The teacher can guide learners in identifying the differences and the types of 'errors' or 'anomalies' found.</p> <p>The teacher can guide learners to comment on the translation choices made by the software versus their own, to stimulate a greater understanding and active recognition of translation mechanisms in terms of morphosyntax, vocabulary, culture-specific elements, style, tone, etc.</p> <p>Discuss with the learner(s) the ethical implications of using AI for translations carried out in class, without actually pointing out this action.</p>	<p>Possibility to improve translation skills and language knowledge.</p> <p>Facilitate and accelerate the translation of long texts.</p> <p>Make it easier to consult texts and articles in foreign languages that are useful for research and study.</p>	<p>Risk of relying totally on AI translations, hence giving up the possibility of learning languages and cultures autonomously. Risk of blindly accepting erroneous translations or losing stylistic nuance.</p> <p>A decline in proficiency and skill in both the native and second languages.</p> <p>Use of the software in an unethical manner.</p>