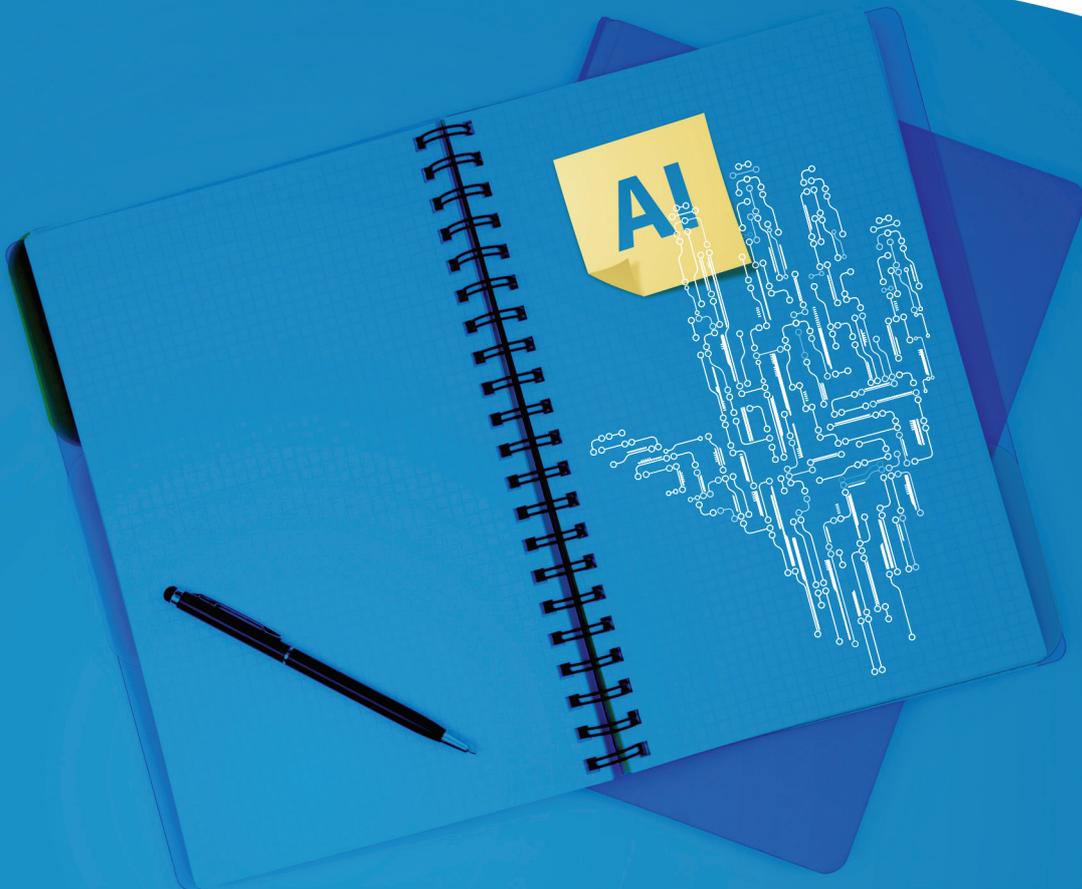




# Guidelines for Ethical Use of **AI** in Academia



Funded by  
the European Union



About EmpowerAI: <https://empower-ai.eu/>

Coordinator:



Partners:



**P.PORTO**



Authors: Vladislav Slavov, Yoana Pavlova, Kameliya Yotovska, Asya Asenova, Radoslav Deliyski, Goreti Marreiros, Constantino Martins, Margarida Afonso, Anna Lalkovska Nina Ivanova Gergova, Maria de Fátima Gomes Pais Ferreira, Luís Octávio Pais Ferreira dos Santos Soares, Natalia Kotti, Apostolos Amprazis, Spyridon Sioutas, Christos Makris Ioanna Giannoukou, Gerasimos Vonitsanos, Nikitas - Rigas Kalogeropoulos  
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## 1. Introduction

### 1.1 Purpose of the Guidelines

The purpose of these guidelines is to establish a common ethical framework for the responsible, transparent, and inclusive use of Artificial Intelligence (AI) in higher education. They are intended to support academic staff, institutional leaders, and students in understanding when and how to use AI tools — especially generative systems— in ways that enhance learning, uphold academic integrity, and align with European values such as human agency, equity, and data protection. Developed within the EmpowerAI Erasmus+ project, these guidelines are grounded in evidence collected during the initial research phase.

The guidelines do not seek to ban or restrict AI in academia but to clarify conditions under which its use can be considered ethical, fair, and pedagogically sound. They aim to stimulate critical reflection, promote institutional readiness, and encourage consistent practices across diverse higher education systems. The document aims also to support universities in responding to the evolving AI landscape while maintaining trust, integrity, and academic excellence by providing guiding principles and practical tools.

### 1.2 Background - AI in Academia

Artificial Intelligence (AI) — particularly Generative AI powered by Large Language Models (LLMs) — has emerged as a transformative force in higher education. From content creation and language assistance to personalized tutoring and administrative automation, AI technologies are increasingly integrated into academic processes. These tools offer opportunities to improve efficiency, accessibility, and innovation, but they also introduce complex ethical, legal, and pedagogical challenges.

Since the public release of ChatGPT in late 2022, academic institutions across Europe and beyond have responded in varied ways — from cautious experimentation to institution-wide policy development. Some universities have developed detailed guidelines and AI ethics committees, while others still lack clear direction. International bodies like UNESCO and the European Commission have issued frameworks, but adaptation at the institutional level remains a work in progress.

In this context, the higher education sector stands at a critical juncture - how to responsibly harness the benefits of AI while upholding the values of transparency, academic freedom, and human-centered learning. These guidelines aim to assist in that transition.

### 1.3 Intended Audience

These guidelines are intended for a broad range of stakeholders in the higher education community:

- **Academic Staff**, including professors, lecturers, and teaching assistants, who are expected to make informed, ethical decisions about integrating AI tools into teaching, learning, assessment, and research supervision.
- **Students** as both users and subjects of AI tools in education play a role in understanding ethical boundaries, maintaining academic integrity, and engaging critically with AI technologies.
- **University Management and Policymakers**, such as rectors, deans, quality assurance teams, and institutional committees, who are responsible for setting policies, governance frameworks, and infrastructure that support the ethical deployment of AI.

## 1.4 Alignment with EU Values and EmpowerAI Objectives

These guidelines are firmly rooted in the core values and strategic goals of the European Union, particularly as outlined in the *Ethics Guidelines for Trustworthy AI* (2019)<sup>1</sup>, the *AI Act* (2024)<sup>2</sup>, Ethical guidelines on the use of artificial intelligence (AI) and data in teaching and learning for educators (2022, updated 2025)<sup>3</sup> and the *Digital Education Action Plan 2021–2027*<sup>4</sup>. They also align with the mission and outputs of the EmpowerAI project, which seeks to promote ethically sound and pedagogically responsible integration of AI in academic settings across Europe.

At the EU level, ethical AI is defined by a commitment to:

- Human agency and oversight – ensuring educators and students retain control over learning processes, decision-making, and AI-supported assessments;
- Fairness and inclusivity – avoiding bias and discrimination while improving accessibility for all learners;
- Transparency and explainability – making AI operations understandable and disclosing when AI is used;
- Accountability and safety – ensuring institutions and developers are responsible for AI outcomes;
- Data protection and privacy – complying with GDPR and ensuring ethical handling of educational data;
- Technical robustness – making AI systems secure, reliable, and resilient in educational environments.

## 2. Foundations of Ethical AI Use in Higher Education

### 2.1 Key definitions

**Artificial Intelligence (AI)** refers to a collection of technologies capable of performing tasks that traditionally require human intelligence. These tasks may include reasoning, learning from data, making predictions, recognizing patterns, and even engaging in conversations. Some AI systems are designed to operate autonomously or with minimal human intervention and often depend on algorithms trained on large datasets.

According to the European Commission’s proposed AI Act, an “AI system” is software developed with machine learning, logic-based, or statistical approaches that can generate content, recommendations, predictions, or decisions.

**Generative AI, categorized as Artificial General Intelligence (AGI)** is a subset of AI that focuses on creating new content — such as text, images, music, video, or code — based on training data. These systems use techniques like deep learning and Natural Language Processing (NLP) to produce outputs that mimic human-created materials. Examples include ChatGPT, Bard, DALL·E, Gemini, and Stable Diffusion. Generative AI is especially relevant in educational contexts for content drafting, language learning, and summarization.

**Large Language Models (LLMs)** are a type of generative AI trained on vast amounts of text data to understand and produce human-like language. They are capable of interpreting prompts, generating coherent and contextually relevant responses, and supporting a wide variety of academic functions, such as tutoring, question answering, and essay writing. However, they

<sup>1</sup> European Commission (2019) ETHICS GUIDELINES FOR TRUSTWORTHY AI - High-Level Expert Group on Artificial Intelligence

<sup>2</sup> European Commission (2024) REGULATION (EU) 2024/1689 (Artificial Intelligence Act)

<sup>3</sup> European Commission, Directorate-General for Education, Youth, Sport and Culture. (2022). Ethical guidelines on the use of artificial intelligence (AI) and data in teaching and learning for educators. Publications Office of the European Union. <https://data.europa.eu/doi/10.2766/15375>

<sup>4</sup> European Commission (2020) Digital Education Action Plan 2021-2027: Resetting Education and Training for the Digital Age

also present challenges, such as hallucinated information, lack of transparency, and risk of overreliance.

**AI systems** refer to computational technologies capable of performing tasks that typically require human intelligence, such as natural language processing, decision-making, problem-solving, and learning from data. Examples include chatbots, intelligent tutoring systems, and generative models.

**Ethical use of AI** encompasses the deployment of AI systems in ways that respect human rights, promote fairness, ensure transparency, and uphold accountability. This includes addressing potential biases, safeguarding privacy, and ensuring inclusivity.

**Values** are the core of guiding the ethical use of AI in academia including fairness, respect for diversity, academic freedom, and a commitment to fostering equitable access to educational opportunities.

Academic **integrity** involves upholding honesty and originality in learning, teaching, and research. The responsible use of AI must align with these principles, ensuring that AI tools support, rather than undermine, authentic academic work.

## 2.2. Opportunities and Challenges

AI in higher education should be considered through a dual lens, emphasizing both its transformative potential and its ethical challenges.

### Opportunities

AI tools such as ChatGPT can enhance academic productivity by assisting with drafting, summarization, and language refinement. They enable personalized learning by allowing students to work at their own pace and support greater accessibility for learners with language barriers or disabilities. Educators benefit from time-saving applications in grading, content creation, and administrative tasks, allowing more attention to student engagement.

Figure 1 represents the main opportunities of integrating AI into higher education.



Figure 1. Opportunities for AI Integration in Higher Education

### Challenges

Unsupervised use of AI may facilitate plagiarism or contract cheating, undermining academic integrity. Overreliance on AI can weaken critical thinking and independent learning skills. Traditional assessments are less effective at distinguishing between human and AI-generated work, and unequal access to AI tools may exacerbate educational inequalities. Concerns also exist around data privacy, the reliability of AI-generated content, and potential exposure to bias or misinformation. These issues are summarized in Figure 2 where the key challenges institutions must address when integrating AI into academic environments.

### Challenges

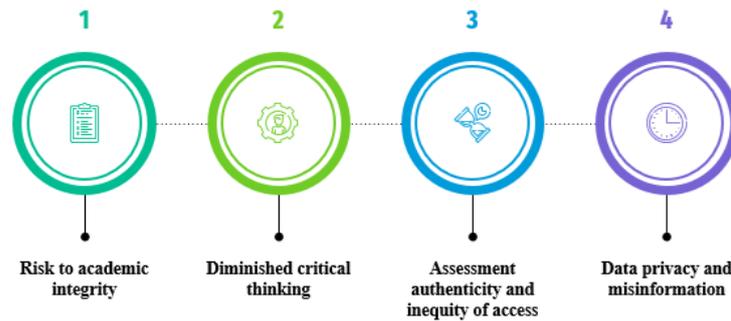


Figure 2. Key Challenges Identified in Focus Groups

### 2.3. Overview of the EU AI Act and National Strategies

The European Union has taken a proactive and principled stance on regulating artificial intelligence through the proposed **AI Act** (Regulation (EU) 2024/1689). The Act introduces a risk-based framework, categorizing AI systems into unacceptable, high-risk, limited-risk, and minimal-risk levels, with **education explicitly named as a high-risk sector** when AI influences student evaluation or access to opportunities.

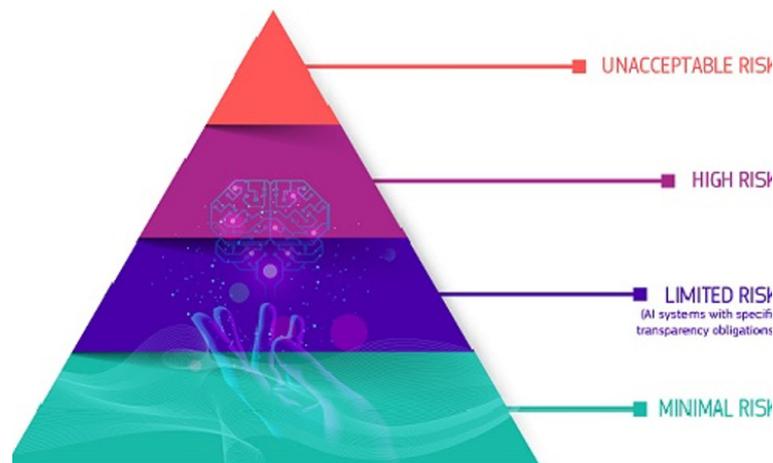


Figure 3. The AI Act defines 4 levels of risk for AI systems

Resource: <https://digital-strategy.ec.europa.eu/en/policies/regulatory-framework-ai>

For higher education institutions, this means any AI system used for grading, student profiling, or admissions must meet strict requirements, including transparency, human oversight, data governance, and traceability. The AI Act complements the **General Data Protection Regulation (GDPR)** and is reinforced by ethical tools such as the **Assessment List for Trustworthy AI (ALTAI)** and the **Ethics Guidelines for Trustworthy AI** issued by the High-Level Expert Group on AI.

The AI Act is also supported by the **Digital Education Action Plan 2021–2027**, which advocates for the safe, ethical, and inclusive use of AI and data in education, with a focus on digital rights, teacher agency, and pedagogical purpose.

At the national level, countries differ in their readiness. Portugal is updating its 2019 AI strategy to align with the EU AI Act; Greece is drafting new national policies; Bulgaria has issued guidance focused on school digitalization; and some institutions in countries like Germany and the Netherlands have introduced internal codes of conduct or AI ethics committees.

## 2.4. Key Risks in Academic Settings

AI use in academia introduces a range of ethical and pedagogical risks that require proactive institutional responses. These include threats to academic integrity through AI-generated plagiarism, diminished critical thinking due to overreliance on AI tools, and challenges in verifying authentic student work. Bias in algorithms may affect fairness in evaluation, while unequal access to AI can deepen digital divides. Privacy concerns arise from unclear data practices, and without clear policies, educators may feel disempowered. Additional risks include environmental costs and the ethical implications of relying on commercial AI systems. Figure 4 summarizes these key risks and their implications for higher education.

**Key Risks in Academic Settings**



Figure 4. Key Risks

These risks do not suggest that AI should be avoided. Rather, they reinforce the importance of integrating AI within clearly defined ethical, pedagogical, and legal boundaries — a purpose these guidelines aim to fulfill.

## 3. Core Ethical Principles and their meaning in academia

The ethical integration of AI in academia relies on a shared understanding of core principles that reflect both European values and institutional responsibilities. These principles—fairness, transparency, inclusivity, privacy, human agency, and accountability—are not abstract ideals but actionable foundations for decision-making in teaching, learning, and governance. For universities, these principles inform policies, staff development, and technology procurement. For educators and students, they shape everyday practices, such as how AI tools are selected, used, and evaluated. Table 1 outlines what each principle means in general terms and highlights how it translates into expectations and practices for both teaching staff and learners. The goal is to foster a shared ethical culture around AI—one that supports innovation while safeguarding trust, equity, and academic integrity.

Table 1. Core ethical principles for AI use in academia and their implications for educators and students.

Principle	What it means in general?	What it means for teachers	What it means for students
<b>Fairness</b>	<i>Fairness in AI involves ensuring that systems do not perpetuate biases or lead to discriminatory practices.</i>	<i>Identify and address AI bias; teach students to critically evaluate outputs.</i>	<i>Learn to recognize bias in AI-generated content and avoid reinforcing stereotypes.</i>

<p><b>Transparency &amp; Explainability</b></p>	<p><i>Transparency in AI ensures that users, whether teachers or students, can understand how decisions and outcomes are derived by AI systems.</i></p>	<p><i>Explain how AI tools work and their limitations.</i></p>	<p><i>Understand that AI generates outputs based on patterns, not facts.</i></p>
<p><b>Inclusivity</b></p>	<p><i>Inclusivity in AI ensures that all individuals, regardless of their socioeconomic background, physical ability, or cultural identity, have equitable access to AI tools and resources.</i></p>	<p><i>Use AI to support diverse needs; ensure tools are accessible.</i></p>	<p><i>Reflect on whose voices or perspectives may be missing or misrepresented in AI outputs.</i></p>
<p><b>Privacy &amp; Data Protection</b></p>	<p><i>Privacy and data protection are critical for ensuring that the use of AI in academia respects individual rights and complies with legal regulations.</i></p>	<p><i>Avoid sharing sensitive information; follow GDPR-aligned policies.</i></p>	<p><i>Be cautious with personal data; review AI tools' privacy terms.</i></p>
<p><b>Human Agency &amp; Oversight</b></p>	<p><i>Human agency emphasizes the importance of maintaining control and autonomy in interactions with AI systems, ensuring that these technologies serve to augment human decision-making rather than replace it.</i></p>	<p><i>Promote critical thinking; use AI as a support, not a replacement.</i></p>	<p><i>Question and verify AI outputs; don't rely on them blindly.</i></p>
<p><b>Accountability</b></p>	<p><i>Responsibility for AI-supported actions must remain with the human user or institution.</i></p>	<p><i>Take responsibility for how AI is used in teaching and grading; avoid full automation.</i></p>	<p><i>Acknowledge when AI is used in your work and ensure you understand the results.</i></p>

The ethical principles outlined in Table 1 serve as a foundation for guiding responsible AI use in academia. These principles become especially relevant when applied to generative AI systems, particularly large language models (LLMs) such as ChatGPT or Gemini. As these tools are increasingly integrated into teaching, learning, and assessment, educators and students must understand how to apply ethical standards in real-world contexts. Table 2 summarises core ethical principles that apply to students and academic staff when engaging with large language models (LLMs). It illustrates responsible practices and highlights the potential risks associated with misuse or lack of awareness.

Table 2. Ethical Principles for Using LLMs in Academia

Principle	Agency involving LLM	Risks
<p><b>Fairness</b></p>	<p><i>Fair use involves ensuring prompts do not intentionally elicit biased or harmful outputs and using LLMs to highlight and mitigate stereotypes. Teachers can demonstrate fair uses, such as generating diverse perspectives on a topic, while unfair use includes using LLMs to reinforce discriminatory narratives or spread misinformation.</i></p>	<p><i>A significant risk in using LLMs is the potential for amplifying existing biases or generating harmful stereotypes. For example, an LLM might produce outputs that disproportionately favor one cultural perspective or exclude marginalized groups, leading to ethical and reputational issues if unchecked.</i></p>
<p><b>Transparency</b></p>	<p><i>Transparent use involves explaining to students how LLMs generate responses and acknowledging the limitations of the tool. For instance, students should know that LLMs do not "know" facts but generate outputs based on patterns in training data. Non-transparent use includes treating LLMs as infallible sources of information without scrutiny or explanation.</i></p>	<p><i>Lack of transparency in LLMs can lead to blind trust in their outputs. For example, a student might cite an AI-generated response as factual without understanding its origins, which could result in misinformation being perpetuated in academic work.</i></p>
<p><b>Inclusivity</b></p>	<p><i>Inclusive use involves tailoring prompts and contexts to ensure outputs consider diverse perspectives and avoid marginalization. For example, students can experiment with rewriting prompts to generate responses inclusive of underrepresented groups. Unfair or non-inclusive use includes generating content that reinforces stereotypes or excludes specific viewpoints.</i></p>	<p><i>The risk of exclusion or underrepresentation in LLM outputs can exacerbate existing inequalities. For instance, an LLM trained predominantly on data from one region might fail to generate relevant or accurate responses for users from other cultural contexts.</i></p>
<p><b>Privacy and data protection</b></p>	<p><i>This involves avoiding inputting sensitive or personally identifiable information into LLMs and understanding how such systems store or use data. Teachers should stress anonymized interactions, while non-privacy-conscious use includes sharing confidential or private data with LLMs, leading to potential misuse.</i></p>	<p><i>A major risk is the potential for data breaches or misuse of sensitive information. For example, if a student inputs private details into an LLM, this data could be stored and potentially accessed by unauthorized parties.</i></p>

**Human agency**

*This involves encouraging students to critically evaluate AI outputs, such as cross-checking facts and rejecting incorrect or biased information. Agency-diminishing use occurs when users accept LLM outputs without scrutiny, allowing the tool to dominate decision-making processes.*

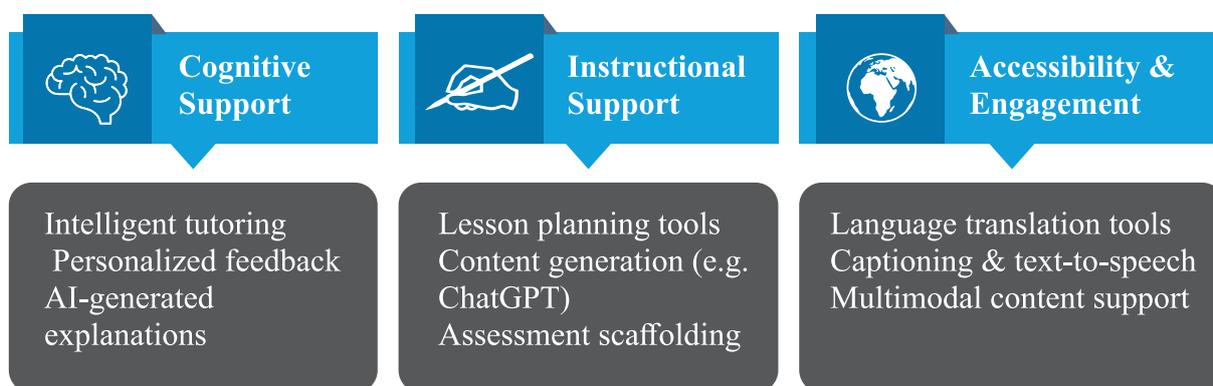
*Over-reliance on LLMs can undermine human decision-making and critical thinking. For example, if a student uses an LLM to generate answers for assignments without understanding the content, it erodes their learning process and fosters dependence on AI systems.*

**4. Ethical Use of AI - Use Cases and Risk Scenarios**

**4.1 AI in Teaching and Learning**

AI is increasingly used in higher education to enhance the effectiveness, personalization, and efficiency of teaching. Yet its adoption also raises ethical questions related to academic freedom, inclusivity, and the role of human oversight. The Venn table presents common AI-supported teaching practices along with associated ethical considerations, including both use cases and potential risks. These are grouped into three categories that reflect the main ways AI supports teaching and learning.

*Table 3. AI-supported teaching practices*



**Cognitive Support**

AI tools in this category enhance students’ understanding by offering personalized, real-time feedback and tailored learning paths. For example, intelligent tutoring systems simulate one-on-one instruction, guiding learners through complex topics at their own pace. Generative AI can also assist in breaking down abstract concepts into simpler explanations, promoting cognitive development.

**Instructional Support**

Educators are increasingly using AI to streamline their instructional design and classroom preparation. Lesson planning tools can generate quizzes, activities, and rubrics aligned with learning objectives. Generative AI models like ChatGPT assist in content creation, while other tools scaffold assessments or offer automated suggestions based on curriculum requirements.

**Accessibility & Engagement**

AI applications also support inclusive education by enhancing access for diverse learner needs. Language translation tools help non-native speakers engage more fully while captioning

and text-to-speech systems assist students with disabilities. Multimodal learning environments enabled by AI (e.g., image, audio, and video-based tools) boost engagement and provide varied ways to grasp the material.

#### 4.2 AI in Assessment and Grading

AI is reshaping assessment in higher education by enabling faster feedback, scalable grading, and more personalized evaluation. These tools can reduce educator workload and improve consistency, but they also raise ethical concerns—particularly around fairness, transparency, and the reliability of learning outcomes. Table 4 outlines common AI applications in assessment and their associated ethical risks.

*Table 4. Summary of AI applications in assessment and grading*

Category	Practice	Ethical Considerations & Risks
<b>Automated Feedback</b>	<i>Real-time grammar checks, writing suggestions, or rubric-based comments.</i>	<i>May lack depth or personalization. Students should be clearly informed when AI is used.</i>
<b>Automated Evaluation of Student Work*</b>	<i>AI models that assess written assignments, problem-solving processes, code, formulas, graphs, or creative works.</i>	<i>Risk of bias or misinterpretation in evaluating diverse formats and disciplines. Final judgment must remain with human educators.</i>
<b>Assessment Generation</b>	<i>Tools that generate quizzes, exams, or task variations on-demand.</i>	<i>May oversimplify learning objectives. Risk of misalignment with intended outcomes.</i>
<b>Predictive Analytics</b>	<i>Identification of students at risk of failure or dropout using historical data.</i>	<i>Raises privacy concerns. May reinforce systemic inequalities or unconscious bias.</i>
<b>Plagiarism &amp; Similarity Detection</b>	<i>Tools that flag AI-generated or copied text.</i>	<i>Risk of false positives or overreliance on detection algorithms. Students may not understand criteria.</i>
<b>Performance Monitoring</b>	<i>Dashboards analyzing participation, progress, and engagement metrics.</i>	<i>Can feel like surveillance. Risk of reducing learning to quantifiable metrics.</i>

**\*It must be strongly noted** that AI-assisted assessment is not limited to text-based outputs. In fields like engineering, natural sciences, computer science, and the arts, AI may also be used to analyze student-submitted code, visual data, mathematical solutions, or creative work. These diverse formats introduce specific challenges for AI tools, which may struggle with context sensitivity, creative nuance, or multi-step reasoning. While such tools may support feedback and efficiency, educators must remain actively involved in final evaluations.

### 4.3 AI in Student Support and Advising

AI is increasingly used to support students beyond the classroom—through chatbots, predictive tools, and personalized recommendations that offer fast, scalable, and often 24/7 assistance. Table 5 summarizes key applications in student support and advising, along with the ethical considerations they raise for institutions.

*Table 5. Summary of AI applications in student support and advising*

Category	Practice	Ethical Considerations & Risks
<b>Chatbots and Virtual Assistants</b>	<i>Answer frequently asked questions related to enrollment, schedules, housing, etc.</i>	<i>May provide outdated or inaccurate information. Risk of overreliance; students may not seek human help when needed.</i>
<b>AI-based Academic Advising</b>	<i>Recommends courses or study paths based on performance and interests.</i>	<i>Could lead to rigid or biased recommendations. May limit exploration or creativity.</i>
<b>Mental Health and Wellbeing Monitors</b>	<i>Sentiment analysis in student writing or activity logs to flag potential distress.</i>	<i>High sensitivity of data. Risk of false positives or breaches of privacy.</i>
<b>Personalized Notifications and Nudges</b>	<i>Encouragement to register for classes, submit forms, or attend events.</i>	<i>Can feel manipulative or intrusive. Requires clear opt-in and explanation.</i>
<b>At-risk Student Identification</b>	<i>Predicts dropout or disengagement risk based on behavior patterns.</i>	<i>May reinforce stereotypes or unintentionally label students. Action must be context-sensitive and supportive.</i>
<b>Performance Monitoring</b>	<i>Dashboards analyzing participation, progress, and engagement metrics.</i>	<i>Can feel like surveillance. Risk of reducing learning to quantifiable metrics.</i>

## 5. Academic Integrity in the Age of AI

The emergence of generative AI tools has created uncertainty around what constitutes original work, what qualifies as assistance vs. misconduct, and how academic communities define integrity in digital contexts.

### 5.1 Definitions and Grey Zones

Generative AI tools have blurred the boundaries of academic integrity, creating new gray zones. While plagiarism is still clearly unacceptable, uncertainties arise when students use AI for brainstorming, grammar correction, or drafting. Educators also vary in their views on what level of AI assistance is acceptable. Some institutions now recommend citation practices or honesty declarations for AI use, but consistent standards are still lacking. Table 6 illustrates common scenarios where ethical boundaries around AI use remain unclear.

Table 6. Scenarios for possible gray zones

Scenario	Description	Ethical Consideration / Risk
<b>AI-assisted proofreading</b>	<i>A student uses ChatGPT to correct grammar and style in their own essay draft.</i>	<i>Acceptable in some institutions, but often requires disclosure. Can obscure authorship if content is restructured or reworded.</i>
<b>AI-generated outlines or summaries</b>	<i>A student asks an AI tool to generate an essay outline or topic summary before writing.</i>	<i>May support learning if used transparently. Without attribution, may suggest unearned comprehension.</i>
<b>Direct inclusion of AI-generated content</b>	<i>A student copies/uses paragraphs/formulas/images etc. generated by ChatGPT into their submission without modification.</i>	<i>Commonly viewed as plagiarism. Raises authorship, accountability, and originality concerns.</i>
<b>Undeclared AI assistance in programming or problem-solving</b>	<i>Students use AI tools to generate code, solve equations, or explain complex problems.</i>	<i>Depends on course policy. Risks undermining independent problem-solving and learning outcomes.</i>
<b>Use of AI to paraphrase or rewrite</b>	<i>A student uses AI to reword or simplify online sources for use in their own work.</i>	<i>Can result in unattributed copying. Often hard to detect and challenging to assess ethically.</i>

The following recommendations may be defined to serve at the institutional level:

- ✓ Define acceptable and unacceptable forms of AI use clearly in academic codes and syllabi;
- ✓ Encourage transparency through AI usage declarations or annotations;
- ✓ Align policies with evolving best practices from international guidelines and peer institutions;

## 5.2 Misuse Scenarios (e.g., plagiarism, contract cheating)

As AI becomes embedded in student workflows, the risk of unethical use grows. New forms of misconduct include fully AI-generated assignments, cheating during exams with AI support, and outsourcing work to third parties using AI tools. While some universities have updated policies or adopted detection tools, many still rely on outdated definitions that don't reflect current technologies. Table 7 outlines common high-risk misuse scenarios institutions should be prepared to address.

Table 7. High-risk misuse scenarios

Scenario	Description	Risk to Academic Integrity
<b>AI-generated assignments across formats</b>	<i>Students submit work (e.g., essays, lab reports, code, artwork, graphs) produced entirely by ChatGPT or other LLMs.</i>	<i>Violates originality and authorship norms. Difficult to detect consistently.</i>
<b>Paraphrased plagiarism using AI</b>	<i>AI tools used to rephrase copied text, masking direct plagiarism.</i>	<i>Obscures source material and circumvents traditional plagiarism checks.</i>
<b>AI-assisted contract cheating</b>	<i>Students hire third parties who use AI to complete assignments.</i>	<i>Compounds integrity violations; detaches student completely from the learning process.</i>
<b>Cheating in online exams or quizzes</b>	<i>Students use AI tools during unsupervised assessments.</i>	<i>Undermines fairness and accuracy of assessment. Hard to monitor at scale.</i>
<b>Fabricated references or data</b>	<i>AI used to invent citations or statistical results that sound plausible but are fake.</i>	<i>Misleads educators and reviewers; may not be easily verifiable.</i>

Hence, the following recommendations can be defined and considered by the universities:

- ✓ Update definitions of plagiarism and cheating explicitly include AI-generated content.
- ✓ Train staff and students to recognize subtle forms of misuse (e.g., paraphrased outputs, synthetic citations).
- ✓ Pair AI-detection **verified and validated** tools with pedagogy-focused strategies, like oral exams, reflective writing, and process documentation.

### 5.3 Strategies for Detection and Prevention

As misuse of AI in academic settings becomes more nuanced and widespread, detection and prevention strategies must evolve to be both technologically effective and pedagogically sound. Overreliance on AI-detection software alone has proven to be unreliable and prone to false positives. A balanced approach requires the integration of technical tools with changes in instructional and assessment design. Some practical strategies currently being piloted or adopted across institutions are summarized in the table below.

Table 8. Strategies for detection and prevention

Strategy	Description	Benefits and Considerations
<b>AI detection validated and verified software</b>	<i>Uses algorithms to flag AI-generated text in assignments.</i>	<i>Can serve as an initial screening tool, but not conclusively. Risk of false positives; should be paired with human judgment. The software must be validated and verified by national authorities. The risk of false positive is very high and can cause serious damage.</i>
<b>Process-focused assessment</b>	<i>Requires students to submit drafts, outlines, or reflections documenting their process.</i>	<i>Increases transparency; encourages engagement and reduces reliance on AI for final outputs.</i>
<b>Oral defense or viva</b>	<i>Students explain or defend their submitted work in real-time.</i>	<i>Helps verify authorship and comprehension. Can be resource-intensive.</i>
<b>Reflective writing</b>	<i>Students reflect on their learning process, including how AI was or wasn't used.</i>	<i>Encourages self-awareness and academic honesty; useful in hybrid or online environments.</i>
<b>Clear institutional policies and communication</b>	<i>Define what constitutes misuse and outline expectations for AI use in coursework.</i>	<i>Reduces ambiguity; empowers faculty to act consistently across departments.</i>

No single strategy is sufficient on its own. Institutions are encouraged to adopt a multi-layered approach, combining technical solutions with assessment redesign and student engagement. **The goal must be not to eliminate AI, but to ensure and promote that its use remains ethical, transparent, and supportive of meaningful learning.**

#### 5.4 Educating Students and Staff on Integrity

While detection and enforcement are necessary, the long-term foundation of academic integrity in the age of AI lies in proactive education. Both students and educators often lack a clear understanding of what constitutes ethical AI use. This confusion, compounded by rapidly evolving tools, highlights the importance of building a culture of responsibility and informed decision-making. The following strategies can be used to empower both students and academic staff.

Table 9. Strategies for integration of AI literacy in universities

Target Group	Educational Approach	Purpose and Benefits
<b>Students</b>	AI-integrity awareness modules integrated into first-year curricula.	Builds foundational understanding of ethical AI use; supports equity across student cohorts.
<b>Students</b>	Case-based learning using real or hypothetical misuse examples.	Enhances judgment and reflection; makes policy concepts tangible.
<b>Students</b>	Activities involving annotation of AI use in assignments.	Encourages transparency and reinforces accountability in the process.
<b>Academic Staff</b>	Training on emerging AI tools, risks, and classroom policies.	Equips instructors to guide students effectively and respond to misuse confidently.
<b>Academic Staff</b>	Peer exchange or faculty development seminars on AI pedagogy.	Builds collective insight into discipline-specific issues and promotes shared standards.

Ongoing, dialogue-based education ensures that academic communities move beyond compliance to shared responsibility. By making integrity an active part of teaching and learning, universities can prepare students to engage with AI tools thoughtfully, creatively, and ethically throughout their academic and professional lives.

## 6. Recommendations for Teaching Staff

As AI becomes increasingly embedded in higher education, academic staff face the challenge of integrating these technologies ethically and effectively into their teaching practices.

### 6.1 Do's and Don'ts of AI Use in Classrooms

Table 10 provides a summary of key practices that teaching staff is recommended to adopt or avoid to ensure the ethical, responsible, and effective integration of AI into classroom environments.

Table 10. Do's & Don'ts recommendations

Do's	Don'ts
Clearly communicate expectations regarding AI use in assignments, projects, and exams.	Assume students understand AI boundaries without explicit guidance.
Encourage students to disclose and annotate when AI tools have been used in their work.	Tolerate undisclosed or uncritical AI use that obscures authorship.

Use AI as a supplement to human-centered teaching, promoting critical thinking and reflection.	Delegate major teaching tasks (e.g., full content delivery, assessment design) entirely to AI.
Discuss with students the limitations, biases, and risks associated with AI outputs.	Present AI-generated content as inherently trustworthy or comprehensive.
Design assessments that reward independent thinking, process transparency, and originality.	Rely solely on product-based assessments vulnerable to AI completion (e.g., single essays without oral defenses).
Stay informed about emerging AI tools relevant to your discipline and teaching context.	Ignore new developments, policies, or institutional support mechanisms regarding AI in education.

Teaching staff play a pivotal role not only in setting standards for academic integrity, but also in modeling responsible, ethical but also adaptive engagement with transformative technologies.

## 6.2 Designing AI-Aware Assignments and Assessments

Assignments and assessments in the age of AI must be intentionally designed to encourage authentic learning, minimize opportunities for unethical use, and embrace the constructive potential of AI tools where appropriate. Table 11 presents key recommendations for designing AI-aware assignments and assessments.

Table 11. Strategies to design AI-aware assignments and assessments

Strategy	Description	Ethical Benefit
<b>Emphasize process over product</b>	<i>Require submission of drafts, development notes, or reflective commentaries alongside final work.</i>	<i>Reduces likelihood of full AI outsourcing; highlights student engagement and thought process.</i>
<b>Incorporate oral components</b>	<i>Add oral exams, project defenses, or follow-up interviews where feasible.</i>	<i>Verifies understanding and authorship; encourages deeper learning.</i>
<b>Design context-specific tasks</b>	<i>Create assignments rooted in personal experiences, local contexts, or evolving issues that AI is less equipped to address generically.</i>	<i>Reduces risk of generic AI outputs fitting task requirements.</i>
<b>Promote critical engagement with AI</b>	<i>Allow or require limited, transparent AI use (e.g., AI-assisted brainstorming or drafting) followed by human critique and revision.</i>	<i>Teaches students to critically assess AI outputs rather than passively accepting them.</i>
<b>Update rubrics to reward originality and reflection</b>	<i>Include assessment criteria for independent thought, personal voice, source transparency, and ethical use of technology.</i>	<i>Aligns evaluation with learning objectives emphasizing integrity and critical thinking.</i>

It is essential that teachers are ready to prepare students for real-world scenarios where critical AI literacy is increasingly essential.

### 6.3 Communicating Expectations to Students

Clear and proactive communication about the ethical use of AI is essential for cultivating trust and ensuring consistent practices in the classroom. Table 12 outlines strategies for effectively communicating expectations to students.

*Table 12. Strategies for Communicating AI Expectations to Students*

Strategy	Description	Purpose
<b>Syllabus statements</b>	<i>Include explicit language about permitted and prohibited uses of AI in course materials.</i>	<i>Sets clear norms and reduces ambiguity from the start of the course.</i>
<b>Assignment-specific guidelines</b>	<i>Attach AI usage instructions to individual tasks or project briefs.</i>	<i>Contextualizes AI rules to specific types of work and assessment goals.</i>
<b>Honor codes or AI usage declarations</b>	<i>Require students to formally affirm that their submissions comply with AI use policies.</i>	<i>Reinforces a culture of integrity and individual accountability.</i>
<b>Discussion and co-creation of rules</b>	<i>Involve students in creating or reflecting on course AI guidelines.</i>	<i>Builds buy-in, critical thinking, and mutual understanding of academic values.</i>
<b>Feedback and reminders</b>	<i>Offer regular reinforcement of AI expectations throughout the course.</i>	<i>Keeps ethical engagement visible and integrated into everyday academic behavior.</i>

The purpose of the strategy must be to assure consistent, transparent communication that would transform academic integrity policies from static rules into shared community practices that promote ethical learning environments.

### 6.4 Suggested Course Policy Language

To help academic staff clearly articulate expectations regarding AI use, universities can provide model policy language that can be adapted for syllabi, assignment instructions, or academic honesty pledges. The following examples demonstrate ways to frame AI-related guidance for students.

Table 13. Example Course Policy Language for Ethical AI Use

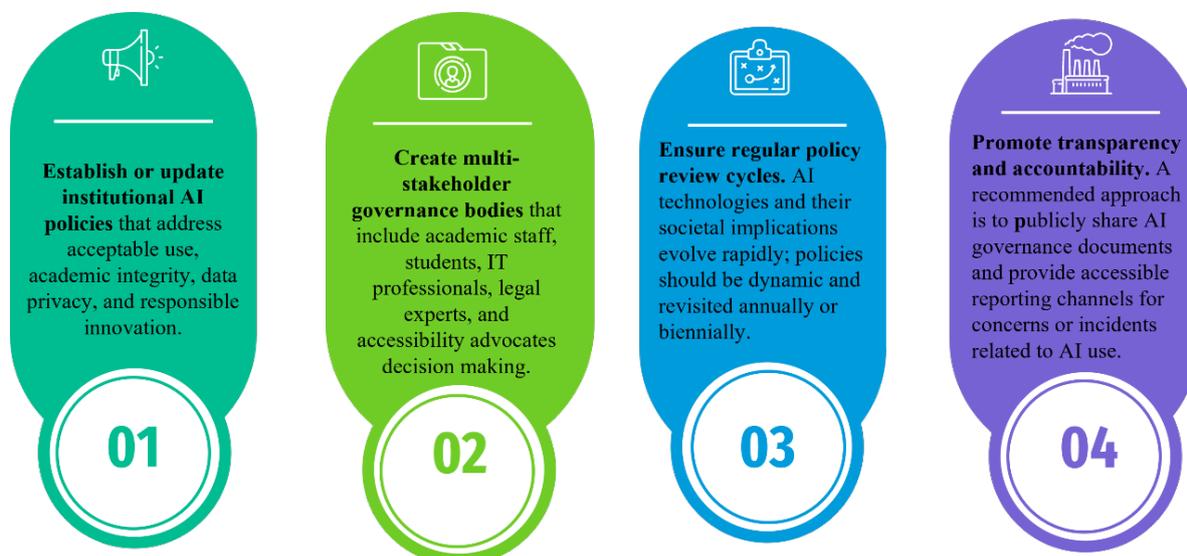
Policy Area	Example Language
Permitted AI use	<i>"Students may use AI tools for brainstorming or grammar checking, but the final content must reflect their own understanding and original analysis."</i>
Permitted AI use	<i>"Submitting AI-generated text, code, or solutions without meaningful human contribution or critical review is considered academic misconduct."</i>
Disclosure requirement	<i>"If AI tools are used in the preparation of assignments, students must include a brief statement specifying which tools were used and for what purposes."</i>
Accountability	<i>"Students are responsible for verifying the accuracy and originality of any work produced with the assistance of AI."</i>
Encouraging critical engagement	<i>"Students are encouraged to question, validate, and critically reflect on AI outputs, rather than accepting them at face value."</i>

## 7. Institutional Implementation Guidelines

Institutional leadership plays a crucial role in ensuring that AI is integrated into academic environments responsibly, transparently, and inclusively. The successful integration requires setting clear rules along with fostering a supportive governance structure and a continuous culture of ethical reflection. In this part of the guidelines, key recommendations for institutions to operationalize ethical AI use at a systemic level are provided.

### 7.1 Policy Development and Governance Models

Developing coherent and adaptable policies is foundational for guiding ethical AI use across departments, faculties, and administrative units. Universities can try to:



## 7.2 Suggested AI Use Policies for HEIs

Higher Education Institutions (HEIs) can foster ethical and innovative AI use by implementing comprehensive, adaptable policies that should include but not be limited to the ones shown in Table 14.

*Table 14. Core Elements of Institutional AI Use Policies*

Policy Area	Key Focus
<b>Disclosure and Transparency Requirements</b>	<i>Students and staff must disclose any use of AI in academic or administrative work and explain its role.</i>
<b>Guidelines for Permissible and Impermissible Uses</b>	<i>Define clear categories for acceptable assistance (e.g., grammar correction) versus misconduct (e.g., full assignment generation).</i>
<b>Protection of Human Agency</b>	<i>AI outputs must be critically evaluated by a human; AI should assist, not replace, academic decision-making.</i>
<b>Equity and Accessibility Considerations</b>	<i>Ensure that students and staff from diverse backgrounds have equitable access to AI resources and training.</i>
<b>Data Privacy and Security Standards</b>	<i>Set rules for AI tools handling personal or sensitive data, aligned with GDPR and national regulations.</i>
<b>Process for Reporting AI-Related Misconduct</b>	<i>Create accessible mechanisms for reporting suspected unethical AI use or tool malfunctions.</i>
<b>Commitment to Ongoing Training and Awareness</b>	<i>Require periodic training for academic staff and students on emerging AI risks, ethical challenges, and opportunities.</i>

## 7.3 Faculty Training and Support

Many academic staff members may still feel underprepared to address the ethical, pedagogical, and technical dimensions of AI use in education. Faculty training is crucial to ensure that educators can guide ethical AI adoption, foster academic integrity, and maintain high-quality learning experiences.

*Table 15. Recommended Faculty Training Areas for Ethical AI Integration*

Training Area	Description	Objective
<b>Ethical AI Use</b>	<i>Workshops on responsible AI integration, fairness, privacy, and transparency principles.</i>	<i>Build faculty awareness and foster ethical leadership in classrooms.</i>

<b>AI Literacy and Tool Familiarization</b>	<i>Practical sessions introducing key AI platforms, capabilities, and limitations</i>	<i>Equip staff with hands-on skills and critical evaluation techniques.</i>
<b>AI-Resilient Assessment Design</b>	<i>Guidance on creating assignments and assessments that minimize unethical AI use.</i>	<i>Support educators in maintaining academic integrity through course design.</i>
<b>Policy and Governance Training</b>	<i>Sessions on institutional AI policies, academic integrity updates, and governance structures.</i>	<i>Ensure faculty compliance and active participation in institutional AI governance.</i>
<b>Peer Learning and Community Building</b>	<i>Faculty-led communities of practice to share experiences, challenges, and evolving best practices.</i>	<i>Encourage peer support, innovation, and cross-disciplinary learning.</i>

#### 7.4 AI Tool Vetting and Procurement

Selecting AI tools for academic use requires careful ethical and pedagogical evaluation. Without proper oversight, adoption may lead to risks such as data breaches, bias, exclusion, or reputational damage. Table 16 outlines key criteria to guide procurement teams, IT departments, and academic leaders in ensuring that selected tools align with institutional values, data protection regulations, and educational goals.

*Table 16. Key Criteria for Vetting and Procuring AI Tools*

<b>Vetting Criterion</b>	<b>Purpose</b>
<b>Educational Relevance</b>	<i>Confirm that the AI tool supports clear learning outcomes or academic needs.</i>
<b>Transparency and Explainability</b>	<i>Prefer tools that provide users with clear information about how decisions, outputs, or recommendations are generated.</i>
<b>Data Protection Compliance</b>	<i>Ensure that AI tools comply with GDPR and national data protection laws, especially regarding student information.</i>
<b>Bias and Fairness Audits</b>	<i>Require vendors to demonstrate how their AI systems have been tested for bias and inclusivity.</i>
<b>Accessibility Standards</b>	<i>Select tools that meet accessibility standards (e.g., WCAG 2.1) to support diverse learners.</i>
<b>Institutional Control and Oversight</b>	<i>Prioritize tools that allow institutions to manage settings, control data flows, and monitor usage effectively.</i>

## 8. Ethical Checklist for Educators - A Practical One-Page Tool

This checklist is designed to help academic staff reflect on and ensure ethical AI use in their teaching, assessment, and student support practices. Educators can use it when planning courses, designing assignments, or integrating new or existing AI tools. This tool is intended for quick, practical reference to support ethical AI integration in teaching, assessment, and student support. Use it:



When planning courses  
or updating syllabi.



When designing  
assignments or  
assessments.



When preparing class  
discussions about AI.



When reviewing  
student work where AI  
use may be involved.

It supports ethical decision-making and helps ensure that AI integration strengthens, rather than compromises, academic integrity, critical thinking, and student learning outcomes. **Note! Not every item will apply in every situation.** Educators should adapt the checklist based on the course context, discipline, and institutional policies. The goal is not rigid enforcement, but promoting thoughtful, value-based decision-making. Some educational contexts may not require full use of the checklist. For example, **courses that prohibit all AI use** (e.g., examinations under strict conditions) may not need sections on disclosure or AI tool selection or a **course with no digital component** (e.g., sculpture, physical lab work, performance arts) may find only general integrity reminders relevant or an **assignment where AI is explicitly required** (e.g., AI ethics seminars, machine learning programming courses) will need adapted expectations focused on correct and transparent AI use.

### Ethical AI Integration Checklist for Academic Staff

#### Ongoing Responsibility:

- Stay informed about institutional AI policies and evolving practices.
- Participate in professional development on AI ethics and literacy.

#### Privacy and data security for students:

- Stay informed about personal information (names and demographics).
- Respecting privacy and data rights, GDPR compliance.

#### Before Using AI in the Classroom:

- Clarify whether AI use is permitted, and under what conditions, in the syllabus and assignments.
- Review the AI tool's transparency, privacy, and bias risks.
- Ensure the tool aligns with intended learning outcomes and upholds human agency.

**When Communicating with Students:**

- Explicitly explain expectations for ethical AI use.
- Discuss the risks, limitations, and biases of AI-generated content.
- Create opportunities for students to reflect critically on AI outputs.

**Provide a clear explanation to students how they can use AI:**

- to stimulate ideas.
- finding literature'
- summarizing data;
- translation of texts.
- explaining theories, texts, formulas, etc.

**When Designing Assignments and Assessments:**

- Encourage independent thinking and authentic student work.
- Embed process-oriented elements (e.g., drafts, reflections, oral defenses) to discourage unethical AI use.
- Provide instructions for disclosing AI use where appropriate.

**When Evaluating Student Work:**

- Evaluate the process, reasoning, and originality — not just the final product.
- Stay alert for signs of over-reliance on AI assistance.

## 9. References and further reading

Link to full version:

<http://bit.ly/4p8DMeQ>

Or scan the QR code:



## 10. Acknowledgement

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About EmpowerAI: <https://empower-ai.eu/>

Coordinator:



Partners:



P. PORTO





## Guidelines for Ethical Use of AI in Academia



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