The use of Generative AI in Academic Work: Insights from University Students and Faculty

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Abstract

The integration of generative Artificial Intelligence (AI) in higher education raises several discussions on its ethical use, academic integrity, and its role in learning. This study explores the perceptions of students and faculty regarding the use of generative AI in academic assignments, focusing on ethical considerations, student learning, and institutional guidelines. A survey was conducted among undergraduate and graduate students (N=329) and faculty members (N=14) belonging to a specific department (not in the field of STEAM) of a private higher education institution in Portugal. The survey comprised three sections: (I) Use of generative AI in academic contexts, (II) Perceptions of ethical generative AI use, and (III) Practical application of generative AI in academic assignments. Data analysis involved descriptive statistics to identify agreement trends and differences between students and faculty perceptions. Findings reveal significant differences in perceptions. While most respondents acknowledge generative AI as a valuable support for learning, opinions diverge on its impact on skill development and the ethical implications of its use in assessments. Approximately half of both groups disagree on whether GAI negatively affects students' competencies. Despite these variations, there is a strong consensus on the need for clear institutional guidelines to regulate AI's role in academic work. This research highlights the need for improved digital literacy and ethical awareness among both students and faculty. It also underscores the importance of establishing structured discussions and collaborative frameworks to navigate the responsible use of AI in education. The findings contribute to ongoing debates on AI adoption in academia and call for the development of best practices to ensure ethical and effective AI integration in learning environments.

Keywords: Generative AI, Higher Education, Academic Integrity, Ethical AI Use

1 Introduction

The integration of generative Artificial Intelligence (AI) in higher education raises several discussions on its ethical use, academic integrity, and its role in learning (Chiu, 2024; European Commission: Directorate-General for Education, 2022; Nguyen et al., 2023; Vodafone Foundation, 2025).

Although AI presents many advantages, its implementation must be guided by ethical principles to address potential challenges, particularly in relation to student learning and assessment practices (Cotton et al., 2024; Eke, 2023; Lo, 2023; Waltzer, Cox, et al., 2023). The European Commission (2022) highlights the importance of educators engaging critically with AI technologies to ensure these systems remain transparent, trustworthy, and equitable within educational environments. Traditional assessment methods—primarily relying on written exams and essays—should be reimagined to prioritize authentic assessment tasks. These tasks aim to evaluate students' abilities to apply and integrate competencies in real-world contexts, fostering dialogue and reflection between students and educators (Mai et al., 2024; Waltzer, Cox, et al., 2023; Waltzer, DeBernardi, et al., 2023; Waltzer et al., 2024).

Recent studies show varying opinions among university faculty regarding the integration of generative AI in higher education. While many teachers acknowledge the educational potential of AI tools like ChatGPT, their adoption is hindered by concerns about academic integrity, the erosion of critical thinking skills in students, and the need for adequate training and institutional guidelines (Cabellos et al., 2024; Kiryakova & Angelova,

2023). Students also seem to have a generally positive, yet nuanced view of AI tools in the learning process, as they appreciate these tools for their efficiency and ability to provide instant feedback, clarify complex concepts, and support independent learning, but remain concerned about a potential overreliance on these tools and what constitutes ethical usage (Cavazos et al., 2024; Johnston et al. 2024). Students' attitudes towards AI showcase uncertainty, with some adopting a pragmatic approach to its use to strategically navigate academic pressures, while others remain hesitant due to unclear institutional policies and personal concerns about authenticity (Stone, 2024).

The current study further explores the perceptions of students and faculty regarding the use of generative AI in academic assignments, focusing on ethical considerations, student learning, and institutional guidelines. Data was collected after the implementation of general guidelines for the integration of AI into academic practices at a Portuguese university, described as followed.

2 Roadmap of the integration of Generative AI in Higher Education

The integration of generative AI into academic environments requires intentional planning, clear communication, and structured implementation. In the context of a Portuguese higher education institution (HEI) in which students' and faculty's data was collected, the adopted approach can be explained by the roadmap presented on figure 1, which outlines a strategic, phased approach to incorporating AI in the educational framework of the HEI.

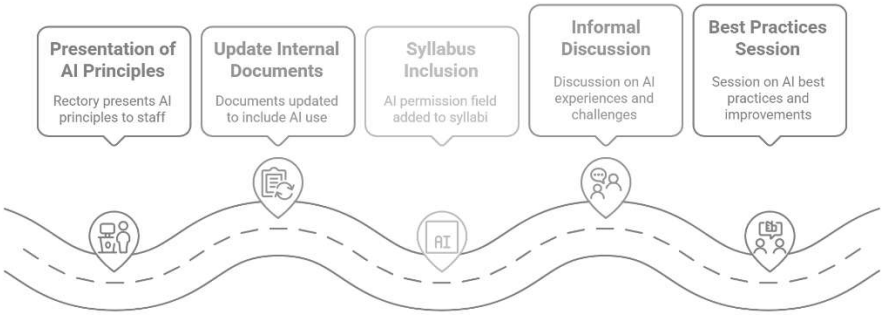
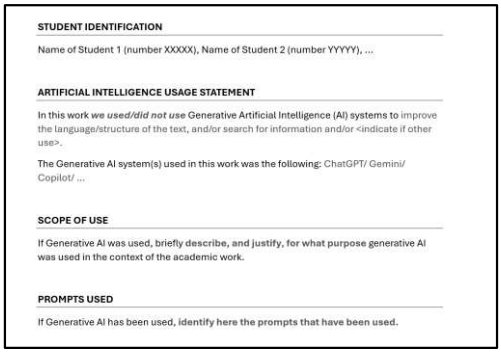


Figure 1. Roadmap of the implementation of Generative AI at the Higher Education Institution

This model reflects a commitment not only to digital innovation in the teaching and learning process, but also to transparency, collaboration, and continuous improvement. The roadmap of the integration of Generative AI in this specific HEI can be explained in five key stages:

1. Presentation of AI Principles - The process began with an introductory presentation, led by the Rectorate, about the AI principles to the academic staff. This presentation served to establish a shared understanding of the ethical, pedagogical, and operational dimensions of generative AI use in education. It aimed to set the alignment regarding the institutional values and guidelines that will guide AI integration across courses and disciplines.

2. Development of Internal Documents - Following the initial presentation, specific documents were created (for example, the "Declaration for the Use of Generative AI for Academic Work" – see figure 2) and internal academic documents (Pedagogic Regulation, Course Syllabus, etc.) were reviewed and updated to explicitly include reference to the use of generative AI. This step aimed to assure that institutional policies also reflected the incorporation of AI tools in the academic practices.



STUDENT IDENTIFICATION

Name of Student 1 (number XXXXX), Name of Student 2 (number YYYYY), ...

ARTIFICIAL INTELLIGENCE USAGE STATEMENT

In this work *we used/did not use* Generative Artificial Intelligence (AI) systems to improve the language/structure of the text, and/or search for information and/or <indicate if other use>.

The Generative AI system(s) used in this work was the following: ChatGPT/ Gemini/ Copilot/ ...

SCOPE OF USE

If Generative AI was used, briefly describe, and justify, for what purpose generative AI was used in the context of the academic work.

PROMPTS USED

If Generative AI has been used, identify here the prompts that have been used.

Figure 2. Declaration of the use of Generative AI for Academic Work

3. Syllabus Inclusion - To embed the use of AI at the course level, a specific field for AI permissions and guidelines was added to all syllabi (see Figure 3). This change aimed to promote transparency between teachers and students regarding acceptable AI usage in assignments and assessments. It also encouraged the development of course-specific policies that consider the unique learning objectives and disciplinary norms of each program.

Figure 3. Inclusion of a new field in the course syllabus: Generative AI Permission

4. Informal Follow-up Discussions - Recognizing the importance of reflective practice, after the start of the first semester of 2024/2025, the Rectory and the Pedagogic Innovation Office, organized informal discussions among faculty and students to obtain feedback about the preliminary results of the integration of generative AI in the curricular units. These sessions provided a space to share experiences, discuss challenges, and explore innovative uses of AI in the classroom, among the different departments of the university. This collaborative approach intended to foster a culture of peer learning among faculty.

5. Best Practices Session – At the end of the first semester, a session dedicated to sharing best practices allowed for the dissemination of successful strategies and the identification of areas for improvement. This session helped create a cycle of feedback, where teachers shared how they used generative AI in the classroom, and these experiences were used to improve teaching practices for the second semester of 2024/2025.

In sum, by gradually involving all stakeholders and embedding AI considerations into institutional documents, curriculum design, and teaching practice, this HEI aimed to create a responsible, effective, and innovative learning environment.

3 Methods

This study explores the perceptions of students and faculty regarding the use of generative AI in academic assignments, focusing on ethical considerations, student learning, and institutional guidelines, following the implementation of the previously described roadmap for the integration of generative AI in teaching and learning.

The objectives of the study include the following:

- To understand the perception of students and teachers regarding the use of generative AI in students' academic work;
- To identify relevant aspects that deserve greater attention and reflection, comparing the results of the students with those of the teachers;
- To reflect on specific training needs regarding the use of generative AI for students and teachers.

A survey was conducted among undergraduate and graduate students of a specific department from a Portuguese university. It was organized in three sections: (I) Use of generative AI in academic contexts, particularly in students' academic assignments (II) Perceptions of ethical use of generative AI, and (III) Practical application of generative AI in academic assignments. Data analysis involved descriptive statistics to identify agreement trends and differences between students and faculty perceptions.

4 Results

In this section, results will be presented according to students' and teachers' perceptions about the use of generative AI in academic assignments. In this paper, we only highlighted some results.

4.1 Students' Perceptions about the use of Generative AI in Academic Work

In general, the analysis of results from the survey to students reveals that students have a range of mixed opinions about using generative AI in academic settings.

From the analysis of table 1, it is possible to conclude that student's responses indicate a divided perspective on whether the use of generative AI compromises the originality of academic work, with approximately one-third agreeing with the statement (30%), one-third disagreeing (36%), and the remaining participants expressing neutrality (34%). A significant proportion of students (72%) expressed a favourable opinion on the use of generative AI for any academic purpose, as long as its use is transparently declared. In contrast, only 24% of students agreed that AI negatively affects the development of academic skills, while 48% disagreed with this claim. There was strong consensus among students on the necessity for institutional regulation, with 84% agreeing that universities should establish clear guidelines on the ethical use of AI. Similarly, 88% agreed that lecturers should explicitly communicate what constitutes acceptable AI use within different types of assessment. Students also demonstrated a highly positive stance on the responsible integration of AI into the learning process. The majority (93%) agreed that AI tools should serve as a support mechanism for learning, rather than as substitutes for academic effort. Moreover, 81% considered it ethically acceptable to use AI for generating creative or innovative ideas, as long as the student made a meaningful contribution to their development. When confronted with uncertainty about the ethical use of AI, 89% of students indicated that they would consult their lecturers. However, there was less agreement regarding the proposition that AI should be limited in assessed work to ensure that outcomes reflect students' own efforts, with only 35% in agreement and a similarly large proportion expressing disagreement (33%) or neutrality (32%). Finally, 77% agreed that AI use should be viewed as ethical only when it does not compromise the primary objectives of academic assessments, such as evaluating students' knowledge and competencies.

Table 5. Results from the Survey to Students

Items	% Agree	% Neither Agree nor Disagree	% Disagree
1. The use of generative AI compromises the originality of academic work.	**30%**	**34%**	**36%**
2. Students may use generative AI for any purpose, as long as they declare its use.	**72%**	13%	15%
3. Generative AI has a negative impact on the development of students' skills.	24%	28%	**48%**
4. The University should establish clear guidelines on the use of generative AI in academic work.	**84%**	12%	5%
5. Lecturers should clearly explain to students what is considered an ethical use of AI in each type of assessment.	**88%**	10%	2%
6. Generative AI tools should be seen as support for learning, but not as a substitute for academic effort.	**93%**	6%	1%
7. The use of generative AI to simulate creative or innovative ideas in a work is ethical, as long as the student contributes to the development of those ideas.	**81%**	14%	5%
8. When in doubt about the ethical use of AI, students should consult their lecturers before using these tools.	**89%**	9%	2%
9. It is more ethical to limit the use of AI in assessed work, so that the result directly reflects the student's effort.	**35%**	**32%**	**33%**
10. The use of AI is ethical only if its use does not compromise the main objectives of the assessment, such as assessing the student's knowledge and skills.	**77%**	18%	5%

4.2 Teachers' Perceptions about the use of Generative AI in Academic Work

Among teachers, perceptions largely converged with those of students on several issues, although key divergences were observed. As shown in table 2, teachers were equally divided on the issue of whether AI compromises the originality of academic work (43% agreement and 43% disagreement), reflecting the same ambivalence seen among students. However, only 43% of teachers agreed that students should be permitted to use AI for any purpose provided its use is declared. Regarding the impact of AI on students' skill development, teachers again displayed polarized views, with 43% agreeing and 43% disagreeing with the notion that AI use hinders skill acquisition. This distribution suggests ongoing debate within the academic community about the pedagogical implications of generative AI. Teachers expressed even stronger consensus than students on the need for institutional regulation. Nearly all respondents (93%) supported the implementation of university-level guidelines, and 100% agreed that lecturers should communicate clearly with students regarding the ethical use of AI in assessments. Teachers also agreed (100%) that AI should serve as a supplementary tool for learning and not as a replacement for student effort, reinforcing a shared pedagogical stance with students. Regarding creative use of AI, 93% of teachers agreed that employing AI to simulate innovative ideas is ethically acceptable when students are active contributors. Teachers similarly agreed that students should consult instructors when uncertain about AI usage (100% agreement). Nonetheless, a greater proportion of teachers (57%) supported limiting AI in assessed work to ensure authentic student output, contrasting with students' relatively low agreement on this point (35%). Finally, a substantial majority of teachers (86%) recognized that ethical AI use must align with the core goals of academic assessments.

Table 2. Results from the Survey to Teachers'

Items	% Agree	% Neither Agree nor Disagree	% Disagree
1. The use of generative AI compromises the originality of academic work.	**43%**	14%	**43%**
2. Students may use generative AI for any purpose, as long as they declare its use.	**43%**	14%	15%
3. Generative AI has a negative impact on the development of students' skills.	**43%**	14%	**43%**
4. The University should establish clear guidelines on the use of generative AI in academic work.	**93%**	7%	-
5. Lecturers should clearly explain to students what is considered an ethical use of AI in each type of assessment.	**100%**	-	-
6. Generative AI tools should be seen as support for learning, but not as a substitute for academic effort.	**100%**	-	-
7. The use of generative AI to simulate creative or innovative ideas in a work is ethical, as long as the student contributes to the development of those ideas.	**93%**	7%	-
8. When in doubt about the ethical use of AI, students should consult their lecturers before using these tools.	**100%**	-	-
9. It is more ethical to limit the use of AI in assessed work, so that the result directly reflects the student's effort.	**57%**	**-**	**43%**
10. The use of AI is ethical only if its use does not compromise the main objectives of the assessment, such as assessing the student's knowledge and skills.	**86%**	7%	7%

5 Discussion

The current study aimed to explore perceptions of university students and teachers about the use of generative AI in academic assignments, focusing on ethical considerations, student learning, and institutional guidelines. Students and teachers reported their perceptions and attitudes towards the use of generative AI tools in academic assignments, following the described roadmap for the integration of generative AI in teaching and learning at a Portuguese university. Although most participants recognized generative AI as a beneficial aid in the learning process, their perspectives diverge on its influence on skills development and the ethical considerations. Approximately half of the participants in both groups disagree on whether Generative AI adversely impacts students' competencies. Divergent views also arise concerning acceptable applications, such as utilizing AI to draft introductions and conclusions or to compensate for the absence of group members. Nonetheless, there is a strong consensus between students and faculty on the urgency for institutions to establish clear and comprehensive guidelines to govern the role of AI in academic contexts.

These results are in line with recent studies. For instance, a study with Australian students revealed that, more than a third of students have used chatbots for assessment assistance, but do not necessarily perceive it as a breach of academic integrity (Gruenhagen et al., 2024). Approximately half of the participants in both assessed groups disagree on whether Generative AI adversely impacts students' competencies. Divergent views also arise concerning acceptable applications, such as utilizing AI to draft introductions and conclusions or to compensate for the absence of group members. A recent systematic review indicates that teaching academics acknowledge the potential of AI to enhance teaching efficiency and improve instructional practices, while emphasizing the importance of thorough training and well-defined policies for the effective and ethical integration of generative AI in higher education (Nikolic et al., 2024).

While Generative AI supports personalized learning experiences and fosters increased student engagement, it simultaneously raises critical issues related to the integrity of assessments, data privacy, and broader ethical considerations (Ahmed et al., 2024). Supporting prior research conclusions, this study's findings highlight the ambivalence among faculty and students, who are both intrigued by and cautious about the educational implications of using AI technologies to teach and learn (Cabellos et al., 2024; Kiryakova & Angelova, 2023). Both students and teachers value generative AI tools as important to support students' academic work and learning but are concerned about a potential negative impact on students' academic skills (Cavazos et al., 2024; Johnston et al. 2024).

The current study suggested that students and faculty need comprehensive guidelines to govern the role of AI in academic work. In the current study, students and teachers echoed a sense of ambiguity surrounding academic integrity guidelines. In accordance with prior research (Johnston et al., 2024; Stone, 2024), this study's findings emphasize the urgent need for higher education institutions to develop clear and ethical frameworks, along with support structures that guide both faculty and students in the responsible and effective use of generative AI technologies.

Finally, it is important to highlight that the present study is only descriptive and was composed by unbalanced groups of respondents, with a much higher participation of students compared to teachers. Results could have been influenced by lack of sufficient experience in the use of generative IA tools and social desirability. Despite being an exploratory and descriptive study with some limitations, the results show that there is a need for wider reflection on the use of Gen IA tools in academic contexts.

6 Conclusion

The current study presents results that can help HEI think about key questions in which students and faculty members present divergent opinions. The findings point to several critical areas that demand deeper reflection. First, the inconsistency shared by both students and teachers regarding the impact of AI on originality and skill development highlights the need for more evidence-based discussions within academic institutions. While both groups acknowledge the potential for AI to support learning, uncertainty persists regarding its long-term influence on student competencies and the authenticity of academic outputs. Addressing this ambiguity may require longitudinal research and pedagogical experimentation aimed at integrating AI in ways that enhance, rather than erode, core educational objectives. Second, the strong evidence from both groups for clear institutional guidelines underscores an urgent need for universities to establish comprehensive policies that articulate acceptable practices, ethical boundaries, and consequences of misuse. These policies should be co-developed with input from both faculty and students to ensure they are contextually relevant and practically applicable. A balanced approach and flexible guidelines can help integrate generative AI into university teaching and learning processes, benefiting both faculty and students (Cacho, 2024; Nguyen et al., 2023). Third, the differing perceptions surrounding the sufficiency of declaring AI use suggest a broader discussion regarding academic integrity. While students may perceive disclosure as a means of legitimizing AI-assisted work, educators appear to demand more rigorous standards, emphasizing the importance of individual authorship and learning outcomes. Bridging this gap may involve the development of discipline-specific frameworks that define the permissible scope of AI use within different types of assessments. In sum, the integration of generative AI into academic contexts is reshaping conceptions of authorship, learning, and assessment. While both students and teachers recognize the potential of AI as a learning support, careful consideration must be given to the development of ethical, pedagogical, and institutional frameworks that safeguard academic standards and support meaningful student engagement.

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