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An Empirical Study of Student Perspectives on AI Integration in Higher Education

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Abstract: Nowadays, Artificial Intelligence (AI) plays a significant role in transforming all fields, including education. Although there are numerous studies on the integration of Artificial Intelligence in education, most of them focus on the perceptions of teachers or decision-makers in the education sector, as it is clear that this digital revolution brought by AI has led to a rethinking of the entire educational process, with little focus on how students perceive the integration of AI in education. This article aims to evaluate the perceptions of students from bachelor's, master's, and doctoral programs regarding the integration of Artificial Intelligence (AI) in the educational process. By analyzing these perceptions, this study seeks to better understand students' attitudes towards the role of AI in shaping the future of higher education and to assess its potential impact on the learning process and academic practices. Methodologically, the research is based, on the one hand, on document analysis, considering studies that explore the intersection between AI and education, focusing especially on the adoption of AI tools for personalized learning, academic support, and administrative efficiency, and the other hand, on quantitative research based on a questionnaire addressed to students from the aforementioned educational cycles. Thus, the general objective of the research is to assess the impact that students believe AI has on higher education and to outline how they think university education will unfold in the future, as well as to identify concerns related to its integration. The results of this study are important for decision-makers and university teachers, providing insights into the level of preparedness and concerns students have regarding AI in higher education. These findings can guide the ethical and effective integration of AI tools in academic environments.

Keywords: artificial intelligence; higher education; digital transformation; AI-based platforms

JEL Classification: according to the JEL Classification System

1. Introduction

Along with digital progress, the educational process has evolved significantly, moving from traditional forms of teaching to hybrid models (blended learning), which combine classical methods with digital resources. This transition has involved not only a technological change, but also a paradigm shift in terms of the role of the actors involved in the educational process. The student, previously perceived as a passive participant, has become increasingly active and involved in the teaching-learning process, actively contributing to his or her training.

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The educational system has constantly tried to keep up with technological innovations. In the current context, in which artificial intelligence (AI) is beginning to occupy an increasingly important place in society, the question naturally arises: "*How will AI transform university education? What benefits does it bring and, above all, what challenges or risks does it entail"*. The discussion about the integration of AI in higher education is no longer hypothetical, but a reality that requires a deep understanding from all actors involved – teachers, institutions, and also students.

Based on these considerations, this study aims to investigate the perceptions of undergraduate, master's, and doctoral students regarding the integration of AI in the educational process.

The main objective is to understand how students see the role of artificial intelligence in shaping the future of higher education, what their expectations and fears are, and to what extent they feel prepared for such a transition.

2. Literature Review

The OECD report "The Potential Impact of Artificial Intelligence on Equity and Inclusion in Education" emphasizes that AI technologies have significant potential to reshape education, especially in promoting inclusion and equity. AI can provide adaptive learning experiences, helping to improve educational outcomes for diverse student populations. For students with special educational needs, AI tools can offer additional support and help equalize access to educational content (OECD, 2024).

The OECD also highlights that AI contributes to educational equity by personalizing learning processes to each student's needs. Platforms such as Carnegie Learning and Khan Academy, through their Khanmigo system, are cited as examples of good practice. In addition, AI-assisted simulations—including game-based learning, chatbots, virtual reality (VR), and augmented reality (AR)—can offer interactive, immersive experiences that enhance learning quality. These technologies have the potential to transform curricula, making content more engaging, culturally relevant, and accessible to diverse student groups.

A relevant finding from the study "Student Perspective on the Use of AI in Higher Education: Analysis of the Students' Podcast" by Lydia Kilz (2025) highlights students' generally positive perceptions of AI use by educators. Students believe AI can significantly enhance teaching efficiency, especially by facilitating the creation and personalization of learning materials. However, they also highlight that human interaction remains essential in the learning process. They view AI as a complementary tool, not a replacement for teachers.

On the other hand, Kilz also notes a key concern among students: the uncritical reliance on AI tools and the use of AI-generated content without reflective analysis. Students identify this lack of critical engagement as a significant risk.

Another relevant study, conducted by Slimi, Benayoune and Abebe Ejigu (2024), examined the use of AI-based educational platforms. The study involved 89 university students and found that ChatGPT, developed by OpenAI, was the most frequently used platform, being mentioned 79 times by participants. Following ChatGPT were Grammarly (60 mentions), Canva (51 mentions), and Quizlet (27 mentions). Other applications—such as Duolingo, Read&Write, and Socratic by Google—were each mentioned more than 10 times.

3. Research Methodology

This study was conducted between April - March 2025 to obtain a detailed understanding of how students perceive the impact of AI on education and academic practice, as well as identify the benefits and challenges associated with the use of AI technologies in academic environments.

The research was guided by the following central question: *How do students perceive the integration of artificial intelligence into the academic educational process, and what are the perceived benefits, challenges, and their level of preparedness for this digital transition?*

The study was structured around the following objectives:

1. To evaluate the perceptions of undergraduate, master's, and doctoral students regarding the integration of AI in higher education;
2. To identify the benefits perceived by students about AI implementation in university education;
3. To identify the main risks and concerns perceived by students regarding the implementation of AI in higher education.

The questionnaire included both closed-ended questions (e.g., "Have you ever used an AI-based learning platform?" with Yes/No response options), which allowed for quantitative analysis, and open-ended questions (e.g., "What do you consider to be the main benefits of using AI in education?"), which enabled the collection of more nuanced qualitative responses.

The instrument was administered online via Google Forms, and the survey link was distributed to students through official university emails and the educational platforms used by the participating institutions.

The main limitations of this study include the small number of respondents and the fact that the sample was restricted to students in the social sciences, which may limit the generalizability of the findings. Furthermore, the research is based on students' subjective perceptions, which may vary significantly depending on personal experience and familiarity with AI technologies.

4. Results

4.1. Respondent Profile

The study had a sample size of 35 respondents. The age question therefore indicates a greater proportion of the youthful segment. So, 48.6% of the participants were in the 18-22 years bracket which shows an overwhelming representation of young adults in the sample.

The other age portions were represented as follows:

- 23-27 years: 6 respondents (17.1%);
- 28-35 years: 7 respondents (20%);
- Over 35 years: 5 respondents (14.3%).

It shows there were mostly young people who might be more interested in the topic. Out of 35 people who took part in the survey, 54% (19) were doing undergraduate studies, showing a big part of students in the early stage of higher education. The rest were:

- 37% (13) pursuing doctoral studies,

- and 9% (3) at master's level.

4.2. General perception of AI in education

About the use of AI in teaching, from all the answers, most students (22 out of 35) had used educational apps or sites based on artificial intelligence (around 69%) while 10 students did not use AI. This result indicates that a large percentage of students is already aware of the use of AI-based technologies for education which may signify a trend of slow integration of this technology in education. At the same time, there is also a huge number of students who does not yet have contact with these platforms. When inquired about the types of AI-based learning platforms used by students, the answers collected here are typically interesting as ChatGPT tops the responses which, even though it does not fall under a learning platform category but rather a chatbot made for interaction in conversation. It appears that most students are familiar with ChatGPT, but not completely correctly. This may indicate that students use the platform for a general purpose (e.g., getting information or help with homework), but are not fully aware of all its functionalities or are not familiar with other AI platforms.

Jungle and JungleAI were mentioned by a small number of students, suggesting that they are less used, but still present in their preferences.

Also, based on the responses, we can conclude that most students are familiar with ChatGPT, but not completely correctly. This may indicate that students use the platform for a general purpose (e.g., getting information or help with homework), but are not fully aware of all its functionalities or are not familiar with other AI platforms.

4.3. Benefits of AI

The majority of students (20 out of 35 respondents) consider the use of AI in education to be very useful. This indicates a high degree of confidence in the ability of AI to improve learning, the accessibility of educational materials, and even the personalization of the learning process. It could also reflect enthusiasm for technology and innovation in education.

Almost all other respondents (about 10 out of 32) consider AI to be useful. This suggests that while they agree with the integration of this technology, they may not consider the impact to be revolutionary, but they still perceive a significant benefit in using it. There are a few respondents who consider AI to be only partially useful, which suggests a reservation or doubt about the impact of the technology. They may have concerns about the limitations of AI, such as accessibility or negative effects on learning.

Most students are optimistic about the potential of AI to improve education. They see AI as a tool that can support the educational process, personalize learning, and provide quick and efficient assistance.

The fact that most of the responses to the question "*In your opinion, how useful would the use of artificial intelligence be in education*?" are either "Very useful" or "Useful" suggests that there is a high interest in using AI in education. This may reflect current trends in educational technology, where AI is used to support personalized learning, automated assessments, or even to support research activities.

From the students' responses, it can be seen that quick access to information, personalization of learning, and continuous support in the learning process are considered the most important benefits of using artificial intelligence in education. The majority of students (50% of the respondents) consider quick access to information to be the main benefit of using AI in education. This reflects a clear desire to

obtain information in a short and efficient time. AI can help students quickly search for answers to questions, access relevant materials, and optimize their study time.

Another important benefit is personalized learning, mentioned by a significant number of respondents. AI can adapt the learning process to the needs of each student, offering lessons and exercises specific to their level and pace of learning. This allows for a more personalized learning experience and can improve learning efficiency.

4.4. Readiness and Confidence in Using AI

According to the responses, there are several major risks and perceived disadvantages of using artificial intelligence in education:

1. Many students (74,3% of the respondents) highlighted that a major issue with using AI can be the accuracy of information, noting that AI could provide incorrect or incomplete answers. This can negatively impact the educational process, especially when students rely on the wrong information for their studies.
2. Another significant (11,4% of the respondents) perceived risk is related to data security and privacy. Many students are aware of the dangers that can arise when AI platforms collect personal data and sensitive information, which can raise concerns about privacy and data abuse.
3. Some students (11,4% of the respondents) also mentioned that AI could reduce human interaction in the educational process. Dependence on technology can lead to social isolation, and students may become less able to develop communication and collaboration skills traditionally, through direct contact with peers and teachers.
4. Another risk mentioned is plagiarism, especially if students could use AI to generate papers without actually learning the material. Students are also concerned that AI could encourage a lack of effort, as it could be used to directly copy answers or to quickly obtain information without a deep understanding of the subject.

4.5. Future Trends

Regarding the evolution of AI in education, most students are optimistic, believing that the use of AI will become an essential part of the educational process in the future:

- Students believe that AI will become an integral part of the educational system, having a significant impact on teaching and assessment methods. This will lead to the personalization of the educational process, helping students adapt their learning materials and study styles.
- Some students believe that AI will contribute to increasing academic performance by providing constant and adaptive support to students. AI will also help in the process of optimizing learning by identifying the strengths and weaknesses of each student.

Below are some of the students' responses to the question "*How do you think the use of artificial intelligence in education will evolve in the coming years? Do you think it will become an essential part of the educational system and influence academic performance?*":

- "*Considering the rapid development of artificial intelligence and the increasing level of its use by students and pupils, I believe that it will become quite important in the educational system in the coming y*ears*." - student respondent to the questionnaire.*
- *"I believe that academic performance will be influenced by the use of artificial intelligence. I believe that in the coming years it will evolve considerably considering its progress so far." - student respondent to the questionnaire.*
- *"I believe that students will continue to use AI in learning, and teachers need to adapt to provide a guided way to adapt AI in individual learning." - student respondent to the questionnaire.*
- *"I'm sure it will become an essential part. It's a way to quickly access information, which will positively influence the learning process." - student respondent to the questionnaire.*

4.6. Limitations and Challenges in Using AI in Education

From the students' responses, several limitations and challenges in using AI in education emerge, which can affect both its effectiveness and applicability:

1. Many students mentioned that AI can provide erroneous information, which is a significant limitation in its use in education. In particular, there is a risk that the sources cited by AI are fictitious or incomplete, and the answers given may not always be correct, and some information may be invented when accurate data is not found.

2. Another major obstacle is that many teachers do not have the digital skills needed to use AI effectively. This leads to an inability to integrate AI into traditional teaching methods, which is a significant limitation, especially in schools and universities where the technology is not well known and implemented enough.

"*I believe that the limitation of using artificial intelligence in education is the lack of knowledge in this IT field. Not all teachers have digital skills, and for them, it would be perhaps a big disadvantage. This is a major barrier to the effective integration of AI in education." – student respondent to the questionnaire.*

3. AI cannot replace critical thinking and authentic human creativity, and its use can lead to overgeneralizations or a lack of deep understanding of the context in which the information is used. AI also lacks empathy, making it impossible to replace essential human interaction in education, such as uderstanding and responding to students' emotional needs.

"AI does not always understand deep context, and responses can be superficial. It also cannot replace human interaction, which is essential in education." - student respondent

4. Another significant limitation is related to the accessibility of information sources and their quality. AI relies on pre-existing sources, but there is a danger that these sources are not credible or not properly updated. Also, the process of verifying sources can be ineffective, which can compromise educational quality.

"Artificial intelligence sometimes transmits erroneous information or fictitious sources, which limits trust in it. This aspect needs to be regulated and verified." - student respondent to the questionnaire.

5. Many students and teachers fear that AI could encourage technology dependency and reduce students' creativity and independent thinking. Some also believe that AI could lead to easier plagiarism or its misuse for less educational purposes.

6. In many educational institutions, there is a lack of a culture of learning to use AI, and students and teachers are not sufficiently prepared to fully understand the benefits and risks of AI. This lack of preparation and inadequate legislation create a barrier to implementing AI in education.

"Most teachers are skeptical about using AI. Without openness from teachers, we will not have real progress." - student respondent to the questionnaire.

7. Currently, AI is only partially used in education, and most educational platforms have not fully adopted these technologies. Also, the use of AI is often limited to the middle or high school level, and higher education does not fully take advantage of these tools, being still a modern lever, but not a central element of education.

5. Conclusions

Concluding about the research conducted, the answer to the research question: *How do students perceive the integration of artificial intelligence in the academic educational process, and what are the benefits, challenges, and their level of preparation for this digital transition?* it was developed mainly in the results presentation section.

As a general conclusion, most students consider the use of AI in education to be "very useful" or "useful", which shows a high level of confidence and enthusiasm towards integrating this technology into the educational process.

The main benefits students identify include rapid access to information, the possibility of personalizing learning, and the provision of constant support throughout the learning process. These advantages highlight that AI is perceived as a tool capable of streamlining and adapting education to students' individual needs.

However, students also raised several risks and limitations. The most common include the inaccuracy of information provided by AI, concerns about data security and privacy, and the risk of reducing human interaction in the educational environment. There are also concerns about the inappropriate use of AI for purposes such as plagiarism or avoiding active engagement in the learning process.

In conclusion, the use of artificial intelligence in education is perceived as a major opportunity to modernize and streamline the learning process, but it requires responsible implementation, adequate training of teachers, and clear regulation to avoid the risks identified by students.

Although it had a limited number of respondents, I consider this study to be extremely important due to the sum of the results obtained. To be able to generalize the conclusions drawn, it is necessary to expand the research and include a larger number of participating students.

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