

## CHALLENGUES OF ARTIFICIAL INTELLIGENCE FOR HIGHER EDUCATION IN SPAIN.

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In this communication, we present the most relevant results of the Teaching Innovation Project developed this past academic year at our university. The project focused on analyzing the potential use of Artificial Intelligence in the preparation of students' work and the adaptation of these assignments in light of AI's reality. This initial analysis has led to identifying, besides the risk of fraud, the limitations of AI, its possible incorporation into the teaching-learning process, and the potential effects it may have on educational models in the future (especially in the Europe).

Regarding **Fraud**: it is possible to misuse AI fraudulently, but it is also possible to neutralize it by adapting activities, for example, through more practical and less theoretical tasks, by encouraging the interrelation of subjects, or by incorporating critical perspectives (AI lacks a critical viewpoint). The subjects analyzed form a bell curve, where the extremes score from 1 to 10, with particular emphasis on grades between 4 and 6 points (in the European grading system on a 0-10 scale). The adaptation of activities allowed for the satisfactory neutralization of fraud.

This adaptation leverages **AI's limitations**. The greatest of these are the occasional hallucinations, which could lead to academic sanctions for plagiarism. Additionally, AI exhibits varying limitations across different fields of knowledge. For example, it excels at summarizing in the Humanities but falls short in the legal field. Consequently, educators must understand AI's capabilities within their specific areas of expertise.

These limitations should temper the often **optimistic attitude** found in some publications. These limitations pose risks on two fronts. First, the improper use of AI in professional settings, including academia, with possible legal liability; and second, the risk that premature or uncontrolled adoption by educators might lead to failures in the teaching-learning process.

Our proposal for incorporating AI into teaching involved creating a hypothetical set of questions to pose to the AI. This approach required students to critically analyze the feedback received and identify any errors in it. This, in turn, leads to the **potential incorporation of AI** in higher education. However, current limitations, such as hallucinations, restrict its adoption. Effective integration requires a critical and technical evaluation of the results produced by AI, including identifying and addressing any errors. Given the current state of technology, widespread adoption does not appear feasible.

The emergence of this technology introduces new **digital competencies** that professionals will need to master for the future job market. It is crucial to remember that the primary objective of universities is to prepare professionals and support their transition into the workforce. From this perspective, it is essential to closely monitor the development of artificial intelligence and its advancements, as well as its potential impact on academic disciplines and the teaching competencies required for each subject."

This potential has led us to consider that AI might transform the **educational model**. Currently, based on our experience, the prevalence of errors and hallucinations is substantial, particularly at higher levels of specialization.

This situation is particularly pronounced in European countries like Spain, where access to public service positions, for instance, heavily relies on memorized knowledge. Consequently, we believe that AI will aid in effectively integrating the concept of 'competencies,' which is central to the development of the European Higher Education Area. This initiative began in the 1990s and has been evolving since the early 2000s.