

## **CHAT GPT: HAS ITS POTENTIAL ARRIVED TO ENHANCE THE NEW WAY OF TEACHING AND LEARNING? A CASE STUDY IN AVIATION STUDIES**

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### **EXTENDED ABSTRACT**

Teaching and learning are two concepts that are intrinsically linked. The excellence of the latter depends on the innovation of the former. Therefore, the resources that teachers use to update each discipline are the guiding thread towards quality didactics. And, in this line of innovation, are the digital tools. The basic mandates and lines of action in the field of education established in the European Higher Education Area indicate that, “it is the responsibility of the universities to ensure that the studies are innovative and original, incorporate lines that favour the development of the professional career, take into account the importance of inclusion and diversity, serve for social use and the consequent academic support is given to achieve excellence” (European University Association). Additionally, The European Commission in its Digital Education Action Plan (2021-2027) sets the objective of readjusting education and training to the digital age. It highlights two main guidelines. Firstly, to promote the development of a high-performing digital education ecosystem and, secondly, to enhance digital skills and competences for the digital transformation (Lara-Palma, 2022).

Artificial intelligence AI in higher education has contributed as a supporting element whose benefits have been indisputable so far. But everything evolves, and computer systems have been adapting to an increasingly faster market committed to user satisfaction. ChatGPT, a repository of content generated by artificial intelligence has arrived as an assistant to higher education where interaction is done through a chatbot which provides detailed and precised answers (Kocón, 2023); furthermore, adding a challenging language and generation tasks in the form of conversation (Wu, T. 2023).

This new scenario opens the possibility of analysing the benefits and limitations of its use in the classroom from a bidirectional perspective, that of the teacher and that of the student. Therefore, the aim of this study is to analyse the ChatGPT tool usability in the lectures by with the following question: is ChatGPT a resource that reinforces acquisition of learning in the classroom?

Regarding the methodology, two surveys were developed (one for teachers and one for students), which were conducted in paper form (in the winter semester of the academic course 2023-2024). They consisted in 10 questions with special emphasis in the relevance of ChatGPT as learning resource (for students) and as teaching resource (for teachers). All questions are answered by assigning a score number ranging from 1 (leftmost option) to 5 (rightmost option).

Both, students and teachers completed the surveys in an anonymous way in order to prevent unintended data recollection and to encourage all of them to answer in the most honest way possible. The total sample is composed by 22 students (from Commercial Pilot for Passenger and

Cargo Transport Degree at Burgos University) and 5 professors (currently working at academic institutions and private companies).

A reduce sample of the student’s questionnaire is included in Table 1. Each question has been assimilated to a representative boundary/drawback and additionally we tested a sentiment analysis (like emotion recognition).

Table 1. Student’s Survey.

Boundaries	Drawbacks
ChatGPT is always available	Plagiarism must be taken into account
ChatGPT is entertaining	Doubts about authenticity
ChatGPT is free of charge	It is not well seen
ChatGPT is the same as talking with a professor	No emotion recognition
ChatGPT is a Master of all disciplines	I no longer read books or articles
ChatGPT is fast. I do not wate my time	I can ask in English or any other language
ChatGPT is out of class support	There are no figures or tables
ChatGPT fits my needs perfectly	I don't need to attend tutorials
ChatGPT is easy to access	Less interaction with my classmates
ChatGPT is an intelligent tutoring system	Less independent

Source: Self-elaboration and based on Fawaz (2023)

The obtain results provide a basis for a fundamental discussion of whether ChatGPT is a useful digital resource that can enhance learning (for students) and teaching (for teachers). Moreover, can provide customized strategies and approaches to students’ characteristics and needs (Crompton, 2023). It has undoubtedly been a cultural impact with multiple implications for cybersecurity and education, among several other disciplines.

As conclusions, the study allows to address the Code of Ethics of use and rules of responsibility (influence of AI models in learning, avoiding plagiarism, not influencing creativity, shortcomings in the teacher-student relationship or, something as essential in the academic work as it is to promote the acquisition of soft skills and disciplinary competences).

**KEYWORDS:** ChatGPT, learning threat, academic innovation, aviation studies.

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