

Dr. Márta Folmeg¹

Artificial Intelligence in Higher Education: Implications for Working Capital and Future Workforce Preparedness

SUMMARY

Integrating artificial intelligence (AI) in higher education transforms teaching and learning processes, enhancing students' and instructors' soft skill development, motivation, and overall performance. This study explores the impact of AI on higher education, drawing on empirical research and analysis of AI's role in university settings. The research reveals that AI is revolutionizing education through personalized learning experiences, administrative automation, and increased student engagement. However, challenges remain in aligning university curricula with industry demands, particularly in finance, accounting, economics, and business management. To address this, the study emphasizes the importance of integrating AI courses across disciplines, providing instructor training, and fostering industry collaborations to offer practical, real-world AI education. By doing so, higher education institutions can equip students with the skills and knowledge needed to navigate the evolving job market and technological advancements ethically and competently.

Keywords: Higher education, Artificial intelligence, Soft skill development, Motivation, Performance and efficiency increase

INTRODUCTION

The emergence of artificial intelligence has had a profound impact on various aspects of our lives, including education. Beyond enhancing performance and efficiency, AI is also playing a crucial role in accelerating the development of soft skills, such as critical thinking, problem-solving, and communication, which are increasingly valued in today's rapidly evolving job market (Horváth-Csikós et al., 2022). The recent years witnessed rapid developments in the realm of higher education, particularly in preparing the future workforce for the evolving job market (Hajeer et al., 2023; Hajeer, 2024). The most recent development is marked by the rise of AI among students and instructors, with different uses but with the same motivation. Both sides aim to achieve performance and efficiency gains. AI technologies have revolutionized traditional educational practices, providing personalized learning experiences (Folmeg et al., 2024), automating administrative tasks, and enhancing overall student engagement (Popenici & Kerr, 2017). In higher education, the use of artificial

intelligence has become increasingly prevalent and is transforming the way students learn and how institutions teach. One of the most significant benefits of AI in higher education is its ability to personalize learning experiences for individual students. The present study seeks to explore three articles that approach the field of AI from the perspective of instructors and students in higher education. The chosen works of literature encompass perspectives from instructors and students across diverse regions—North America, Western Europe, and Eastern Europe—providing insights into their thoughts, attitudes, experiences, and utilization within the field. The first article from 2023, deals with the volume and expansion of artificial intelligence in higher education with a concrete empirical content analysis text study. The second study investigates the perception of students and graduates at Cracow University of Economics regarding the importance and application of courses on new technologies like Artificial Intelligence in finance and accounting education, highlighting the discrepancy between corporate advancements and university curriculum. Finally, the third article investigates Spanish students' attitudes toward Artificial Intelligence within the fields of economics, business management, and education, emphasizing the need for higher education institutions to adapt their processes and curricula to prepare students for the impact and applications of AI in their future careers. The three studies lead the reader to a practice-oriented conclusion.

ARTIFICIAL INTELLIGENCE IN HIGHER EDUCATION: THE STATE OF THE FIELD

As an introduction for this paper, the author created a word cloud of the frequency of words in the article's abstract and

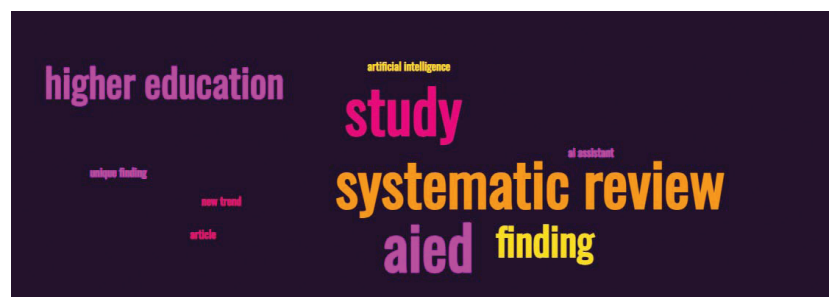


Figure 1. Word Cloud for the article Artificial intelligence in higher education: the state of the field

Source: <https://monkeylearn.com/word-cloud/result>

¹ Assistant professor, PhD, Budapest Business University, Budapest

introduction, which visually illustrates which expressions the given article puts at the center of its study. In the given text section, the term study appeared 91 times, student 48 times, AIED (AI in Education) 33 times, use of AI 23 times, use of AIED 21 times, and the term systematic review 21 times. This (Figure 1.) illustrates the focal points of the study.

The aim of Crompton's paper

This article is a systematic review of the use of artificial intelligence in higher education from 2016 to 2022. The study found a significant increase in the number of publications on AI in higher education in recent years, with China surpassing the US as the leading country in terms of research output (Crompton, 2023: 3). The primary focus of this study is to explore the trends in higher education research related to the use of AI in education (AIED). The initial two questions offer contextual information about the locations of the studies and the academic disciplines where AI was applied. These contextual details are essential for framing the main findings of the third question, which investigates how AI is utilized in higher education.

1. *In what geographical location was the AIED research conducted, and how has the trend in the number of publications evolved across the years?*
2. *What departments were the first authors affiliated with, and what were the academic levels and subject domains in which AIED research was being conducted?*
3. *Who are the intended users of the AI technologies and what are the applications of AI in higher education?* (Crompton, 2023: 4)

Research method and data collection:

Crompton's research

The researchers used PRISMA systematic review methodology to address three guiding questions in this study. They employed Preferred Reporting Items for Systematic Reviews and Meta-Analyses for Protocols (Page et al., 2021) to establish an a priori roadmap for conducting rigorous systematic reviews, selecting articles, identifying, selecting articles, and managing secondary data gathered from those studies (Moher et al., 2015, PRISMA Statement, 2021). They utilized a qualitative deductive and inductive coding methodology to analyze existing data and generate new theories. Based on the research questions, the study parameters were defined, including the search years, quality, and types of publications to be included. Databases and journals were then selected.

Once a set of publications was located from those searches, they were examined against inclusion and exclusion criteria to determine which studies would be included in the final analysis. The data retrieval protocol involved electronic and manual searches.

The research resulted in many computer science courses focused on learning about AI rather than the use of AI in learning. The searches ensured that articles involved formal university education. Electronic and manual searches yielded 371 articles for possible inclusion. The search parameters within the electronic database search narrowed the results to articles published from 2016 to 2022, peer-reviewed journal articles, and eliminated duplicates. Further screening was conducted manually, as each of the 138 articles was reviewed by two researchers to assess their alignment with the inclusion and exclusion criteria (Crompton, 2023: 5).

Gaps in the literature on artificial intelligence: Crompton (2023)

The paper highlighted several gaps in the literature on artificial intelligence in higher education. Some of these gaps include:

- While systematic reviews focus on specific subject domains within AIED, there is a need for a more overarching examination of AIED in higher education to understand its broader implications and applications.
- Many existing studies have focused on AIED in HE up to a certain point in time, such as up to 2020. There is a need for more current research to capture the rapid developments in AI and its applications in higher education.
- Some studies have focused on AI applications in online higher education and in specific regions like Latin America, but there is a need for a more comprehensive understanding of AIED across diverse higher education contexts.
- The review noted a lack of studies examining the last 2 years of AIED in HE, indicating a gap in understanding the most recent developments and trends in this field.
- While existing research has identified the primary functions of AI applications in higher education, there is a need for a more comprehensive exploration of the diverse roles and potential benefits of AIED across different areas of higher education.
- Overall, the review highlighted the rapid speed of AI development and the use of AIED in HE, emphasizing the need for further research to address the evolving landscape of AI in higher education. (Crompton, 2023: 5)

The research identifies five main uses of artificial intelligence in higher education, which are identified in the article as follows (Crompton, 2023: 5):

1. Adaptive systems and personalization
2. Profiling and prediction
3. Assessment and evaluation
4. Intelligent tutoring systems
5. Resource recommendation

RESULTS OF THE RESEARCH

The article notes a two to threefold increase in the number of studies published in 2021 and 2022 compared to previous years. This indicates a growing interest in the use of artificial intelligence in higher education, which aligns with the trend of increasing research in this area. It should be noted, however, to ensure credibility, that this study included only peer-reviewed journal articles (Crompton, 2023: 19). Moreover, the article highlights a shift in researcher affiliation, with the most dominant department being the Department of education. This contrasts with prior studies that showed a lack of researchers from education departments, indicating a change in the composition of researchers involved in AI in higher education.

The research output on AI in higher education has shown a shift from the US to China in terms of the number of publications. According to the systematic review, China has emerged as a leader in the number of AI in higher education publications, surpassing the US. The data from the study indicates that China has been leading in the number of AIED publications, reflecting a rapid trend in Chinese researchers publishing more papers on AI and securing more patents than their US counterparts in a field that was originally led by the US.

This shift in research output suggests a significant growth and emphasis on AI in higher education in China.

The paper identifies specific ways in which AI was used in higher education, such as assessment/evaluation, predicting, AI assistant, intelligent tutoring systems, and managing student learning. These findings contribute to the understanding of how AI is being applied in educational settings. Furthermore, the author notes that undergraduate students were the most studied group, which aligns with previous research indicating a focus on undergraduate education in the context of AI in higher education. These lessons provide valuable insights into the current state and trends of AI in higher education, highlighting areas of growth, change, and focus within the field (Crompton, 2023: 6). The authors also highlighted the need for further research to explore the unexplored affordances of AIED, as well as the potential for new tools such as ChatGPT, which was not covered in the articles included in the study. They emphasized the importance of empirical exploration for new AIED tools and the need for researchers to stay at the forefront of possible innovations in AIED (Crompton, 2023: 19). Additionally, the findings of this study demonstrate a notable rise in AIED studies published in higher education. However, to ensure credibility, these studies only considered peer-reviewed journal articles, which have a lengthy publication process. Consequently, conference proceedings and gray literature, such as blogs and summaries, might uncover additional insights not covered in this study. Moreover, the focus on English-language articles in this research excluded findings from studies published in other languages.

THE STUDENTS' AND GRADUATES' PERCEPTION OF THE POTENTIAL USEFULNESS OF ARTIFICIAL INTELLIGENCE IN THE ACADEMIC CURRICULA OF FINANCE AND ACCOUNTING

The word cloud of the frequency of words in the article's abstract and introduction, the term *graduate* appeared 59 times, *student* 28 times, *technology* 28 times, *new technology* 26 times, *accounting* 25 times, and the term *finance* 24 times. This (Figure 2.) highlights the key aspects of the study.

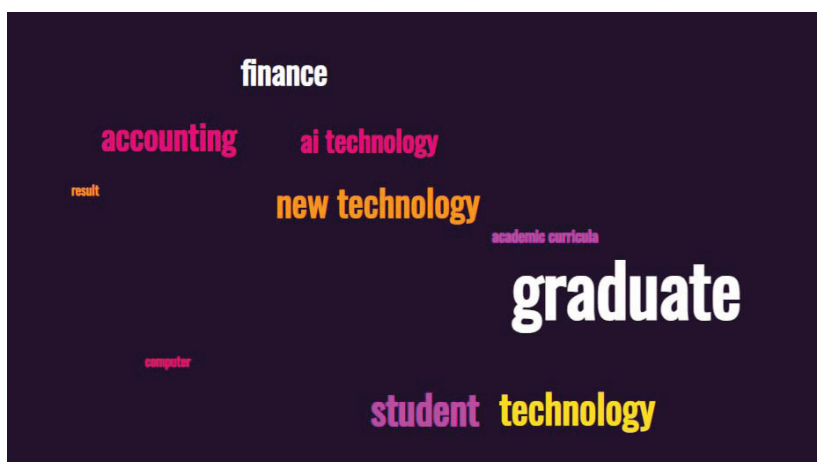


Figure 2. Word Cloud for the article the students' and graduates' perception of the potential usefulness of Artificial Intelligence (AI) in the academic curricula of Finance and Accounting Courses

Source: <https://monkeylearn.com/word-cloud/result>

The aim of Grabińska et al's paper

The research article discusses the perception of students and graduates in Finance and Accounting courses regarding the potential usefulness of Artificial Intelligence in academic curricula. The study was conducted at the Cracow University of Economics and examines the impact of computer-based technologies on education and the expected technological changes in the finance and accounting professions. The authors use regression analysis to investigate the perception of the usefulness of courses providing knowledge in AI. The authors state in the introduction of their article that the technological revolution is profoundly altering traditional professions, posing a threat of obsolescence in some cases. Some sectors have long embraced computer-based technologies, while others are just beginning to rapidly adopt them (OECD, 2017). This trend affects professions such as engineering, management, healthcare (doctors), pharmacy, security, retail, military (soldiers), and accounting and finance. Academic education plays a crucial role in preparing the younger generation to navigate and embrace these changes for future challenges (Grabińska et al., 2021: 3).

The document discusses the expected technological changes in the finance and accounting professions, which are being driven by the emergence and application of new technologies. Some of the key changes mentioned in the document include the increasing importance of Artificial Intelligence in these professions, the integration of AI technologies into accounting and finance systems to improve performance, and the need for professionals to acquire skills related to new technologies such as robotics, machine learning, big data, and data mining. The document also suggests that the role of new technologies, especially AI, is expected to be fundamental shortly and that the requirements of employers are likely to change because of these technological advancements (Grabińska et al., 2021: 3). Firstly, it is conjectured that graduates with extensive professional experience in international environments are more inclined to seek knowledge about the latest technologies. Secondly, it is hypothesized that graduates are more inclined to learn about AI than current students. Similarly, the results indicate that graduates value knowledge and skills in AI technology more than students do (Grabińska et al., 2021: 3). The literature presents theories offering different angles to analyze

the relationship between professionals and new technologies. Firstly, in the motivation sphere, the unified theory of acceptance and use of technology (UTAUT) theory emphasizes post-implementation benefits over effort expectations. Secondly, the premises of institutional theory strengthen motivation through ideational drivers - the mission of the finance and accounting profession and awareness of social responsibility. Thirdly, the theory of technology dominance highlights user-internal acceptance of new technologies, where university education may play a significant role.

Sample selection and research design of Grabińska et al's research

The study focuses on Poland's unique attributes that make it an attractive setting for international corporations and higher education. Poland's transition to a developed market status is highlighted, along with its favorable business conditions, low

risk, and skilled labor force. Despite some traits typical of emerging economies, such as lower labor costs, Poland boasts a relatively young society with a large student population. The research underscores Poland's leadership in financial outsourcing services, driven by its supply of well-educated graduates to global corporations. The evolving market demands graduates proficient in new technologies like AI, robotics, and data mining. The study surveyed students and graduates from Cracow University of Economics, revealing a strong interest in computer-based subjects but limited exposure to advanced technologies like AI and robotics in academic curricula. Graduates express positive views on core and computer-based subjects, emphasizing the importance of expanding education in technological fields to meet industry demands (Grabińska et al., 2021: 7).

The authors conducted a regression analysis to investigate the usefulness of courses providing knowledge in AI. They used a unique Polish setting, which is a leader in terms of outsourcing services. The regression analysis was performed using a pooled sample of students and graduates, totaling 229 respondents. The first model used for the regression analysis was:

$$Y_{AIi} = \alpha_0 + \alpha_1 GENDER_i + \alpha_2 Y_EXPi_i + \alpha_3 CORP_ERPII_i + \alpha_4 FIN_OUT_i + \alpha_5 UNIV_GRADE_i + \alpha_6 EVAL_STUDY_i + E$$

In this model:

- Y_{AIi} is a dichotomous variable coded as 1 when the respondent i selected AI as the priority in terms of the most useful computer-based technology required in their profession.
- $GENDER$, Y_EXPi , $CORP_ERPII_i$, FIN_OUT_i , $UNIV_GRADE_i$, and $EVAL_STUDY_i$ are different variables included in the regression model.
- E represents the error term.

The second model used for the regression analysis included the variable of students versus graduates (ST_VS_GR) and was run in the pooled sample of students and graduates. The model is represented as:

$$Y_{AIi} = \alpha_0 + \alpha_1 ST_VS_GR_i + \alpha_2 GENDER_i + \alpha_3 Y_EXPi_i + \alpha_4 CORP_ERPII_i + \alpha_5 FIN_OUT_i + \alpha_6 UNIV_GRADE_i + \alpha_7 EVAL_STUDY_i + E$$

In this model, the variables have similar meanings as in the first model.

These regression analyses allowed the authors to explore the perception of the usefulness of AI technology courses among students and graduates, and to investigate the difference in perception between the two groups (Grabińska et al., 2021: 8).

The findings support the first hypothesis, indicating that graduates with extensive professional experience, particularly in the international financial services sector, view AI as a crucial technology to acquire. The results of the second model suggest that graduates show greater interest in learning AI technologies compared to students, likely due to their accumulated professional experience.

Key findings of Grabińska et al's study

The results of this research, in general, provide a supportive argument for the UTAUT theory. The study at the Cracow University of Economics found that both students and graduates are aware of the importance of technological change, particularly in the field of finance and accounting education.

The research highlighted that there is a high demand for the incorporation of new technologies, especially Artificial Intelligence, into academic curricula. It was observed that while courses teaching basic subjects are considered essential, the current expectations are much higher in terms of the application of new technology based on AI in finance and accounting. Graduates, in particular, were found to be more aware of the benefits of AI technologies, especially those working in large multinational companies and international financial corporations providing outsourcing services. The study also emphasized the need for a change in academic curricula to meet the demands of the labor market and to better prepare students for future challenges in the field of finance and accounting. The authors state that historically, academic curricula have emphasized basic computer courses covering spreadsheet software, accounting information systems (AIS), and expert systems in finance. However, courses on advanced technologies such as robotics, machine learning, and Big Data remain uncommon and are typically introduced as new additions to academic programs (Grabińska et al., 2021: 7).

The survey of students shows that they find the following subjects most useful: expert systems in finance and accounting (56%), robotics (32%), machine learning (15%), and data mining (14%). At the same time, most students express a willingness to allocate much more time in the academic curricula to computer-based subjects. Students report much more frequent contact with computer-based topics in their curricula as compared to graduates (Grabińska et al. 2021: 8). Their findings and discussions with graduates lead them to conclude that two sets of skills are necessary. Firstly, a core traditional knowledge of finance and accounting is required in the labor market, encompassing double-entry bookkeeping, decision-making, and critical thinking. Secondly, another set of skills related to new technologies is gaining importance, including abilities such as using new technologies, analytical capacity, and problem-solving in the computer/internet environment (Grabińska et al., 2021: 10).

Limitations and Summary of Grabińska et al's study

The study acknowledges its limitations, such as being based on the opinions of a specific sample from one university in Poland and the potential for cognitive bias in questionnaire research. Overall, the study provides supportive arguments for the UTAUT theory, indicating that the implementation of AI technology is perceived to be more beneficial for experienced graduates. However, it also emphasizes that there are other determinants affecting attitudes towards AI technologies and that the study's findings are based on the opinions and impressions of the surveyed individuals (Grabińska et al., 2021: 9). The study explores the attitudes of finance and accounting students and graduates towards computer-based technologies, particularly AI, in academic curricula and professional settings. The survey results indicate that a majority of the participants are women, with varying levels of professional experience. Graduates working in larger corporations, especially in finance and accounting departments, show a greater willingness to learn AI technologies. The study acknowledges limitations such as the sample being from a single university in Poland, and the potential for cognitive bias in questionnaire-based research.

The study also references the UTAUT theory, which suggests that graduates with more professional experience perceive the benefits of AI technologies more than students. It highlights the importance of AI in academic curricula, particularly for those

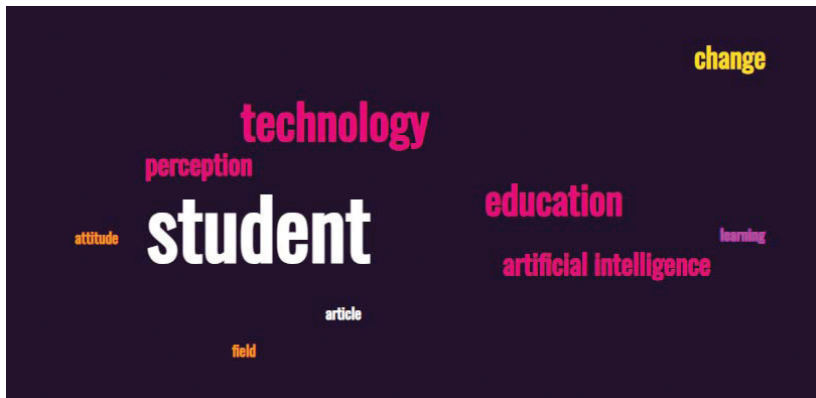


Figure 3. Word Cloud for the article Comparative Study of the Attitudes and Perceptions of University Students in Business Administration and Management and in Education toward Artificial Intelligence

Source: <https://monkeylearn.com/word-cloud/result>

working in multinational corporations and finance/accounting departments. The study acknowledges the limitations of the research and emphasizes the potential impact of cognitive bias in questionnaire-based research (Grabińska et al., 2021: 9).

COMPARATIVE STUDY OF THE ATTITUDES AND PERCEPTIONS OF UNIVERSITY STUDENTS IN BUSINESS ADMINISTRATION AND MANAGEMENT AND IN EDUCATION TOWARD ARTIFICIAL INTELLIGENCE

In approximately the same amount of text, the frequency of words was much less than in the case of the previous two studies. For example, the term *student* just appeared 12 times, *technology* 6 times, *education* 5 times, *artificial intelligence* 4 times, *change* 4 times, and the term *perception* also 4 times (Figure 3.).

The purpose of Almaraz-López et al's study

The document is a comparative study of the attitudes and perceptions of university students in business administration and management and education towards artificial intelligence. It was conducted by researchers from the University of Salamanca in Spain and was published in the Education Sciences journal. The purpose of the study was to analyze the attitudes of university students at the Faculty of Economics and Business Management and the Faculty of Education of the University of Salamanca (Spain) regarding artificial intelligence. The specific research objectives were to study the students' vision of the importance of AI in their professional future, their understanding of this technology, their confidence in being able to utilize AI tools in their profession, and their perception of the AI-related education they have received.

This comparative study aimed to provide insights into the attitudes and perceptions of university students in business administration and management and education toward artificial intelligence (Almaraz-López et al., 2023: 2).

Almaraz-López et al's research design and data collection

The researchers from the University of Salamanca conducted a comparative study on the attitudes and perceptions of university students in Business Administration and Management and in Education toward Artificial Intelligence. The study employed both quantitative and qualitative methods.

Quantitative Methods:

- An electronic survey (Google Forms) was used as the main instrument for data collection.
- The survey was an adaptation to the Spanish case of a survey designed by Sit et al. for their study on the attitudes and perceptions of medical students about AI in the UK, with additional modifications based on the survey of Social Perception of Science and Technology of Spanish Foundation for Science and Technology.
- The survey included questions related to the students' attitudes toward the importance and impact of AI in their future professional careers, their understanding of AI's terminology and limitations, and their confidence in using AI tools.
- Participation in the survey was voluntary, and only individuals with a valid University of Salamanca email address were able to participate.

– (Almaraz-López et al., 2023: 3)

Qualitative Methods:

- The study also involved a qualitative discourse analysis methodology for analyzing the written opinions of the students.
- Students were prompted to use AI tools to write about digitalization in their fields of study and to reflect on their user experience, the advantages and limitations of the AI tools, and the possible uses of this type of technology.
- The students' responses to this activity were manually coded using ATLAS.ti software, and a qualitative discourse analysis was conducted.

(Almaraz-López et al., 2023: 4)

Results and discussion of Almaraz-López et al's study

The study presents a detailed analysis of the attitudes of university students in business administration and management and in education towards artificial intelligence, highlighting the differences in perception and understanding of AI between the two student profiles. The study found that both student profiles understand that AI will play an important role in their professional future. Specifically, 85.82% of education students and 82.51% of economics and business management students perceive the importance of AI in their professional future. The mean value for the perception of this benefit was slightly higher for economics and business management students. Additionally, economics and business management students perceive a greater threat from AI, as they consider in greater proportion that some professional profiles in their field will be replaced by AI during their professional lives (Almaraz-López et al., 2023: 5).

In terms of the degree of knowledge that students have about artificial intelligence, the study found that the majority of participants, 59% of economics and business management students and 70% of education students, are not comfortable with AI concepts. This indicates a lack of familiarity with AI technology among the surveyed population. Furthermore, the perception of the benefits of AI becomes greater as students advance in their undergraduate and graduate studies. The study also revealed that most respondents think that all students should receive AI training, with this appreciation being clearer in economics and business man-

agement students than in education students (Almaraz-López et al., 2023: 6).

Students with AI training showed higher scores in their perceived knowledge needed to routinely work with AI at the end of their degree compared to students without AI training.

There was no significant difference in the perceived competence in post-qualification use of AI tools and the perceived risk of job displacement by AI tools between students who received teaching in AI and those who did not (Almaraz-López et al., 2023: 9). The study highlighted that students' awareness of clear applications of AI in their field, paired with limited knowledge about this technology and its limitations, are the most important factors in their perception of it as a threat to their profession. Economics and business management students showed a higher perception of job displacement risk, even higher than UK medical students in a similar study (Almaraz-López et al., 2023: 11).

The discussion of the study focused on several key points related to students' perceptions and understanding of artificial intelligence. The main points of discussion are the following:

- The study found that most economics and business management students, as well as education students, were not comfortable with AI concepts. However, most students recognized the potential role of AI in their future professional careers (Almaraz-López et al., 2023: 3).
- There was a negative correlation between the student's readiness for working with AI and their year/level of studies. This suggests that, at higher levels, students considered that they would not have better knowledge or confidence in using AI by the end of their studies (Almaraz-López et al., 2023: 8).
- Only a minority of students received teaching on AI, with a small percentage receiving it as part of their compulsory curriculum. Most students had to rely on self-teaching for AI knowledge (Almaraz-López et al., 2023: 6).
- Students showed an understanding of the potential benefits of AI, such as data analysis and efficient decision-making, but also expressed concerns about misuse, privacy, and dependency on AI tools (Almaraz-López et al., 2023: 11).
- Clear statistical differences were found in the perceived preparedness in the critical use of AI between students who had received training in AI and those who had not (Almaraz-López et al., 2023: 4).
- Students were mindful of the limitations and risks of AI, emphasizing the need for careful use of AI tools (Almaraz-López et al., 2023: 13).
- The study utilized both quantitative and qualitative methods, with the survey instrument being an adaptation of previous studies and underwent several rounds of revision (Almaraz-López et al., 2023: 4).

Overall, the study highlighted the students' varying levels of familiarity, understanding, and preparedness for AI, as well as the need for more comprehensive education on AI and ethical considerations in its use.

Summary of Almaraz-López et al's article

The study aimed to understand the attitudes and perceptions of students in business administration and education regarding the use of artificial intelligence. The study collected responses from 143 students in the Faculty of Economics and Business Management and 127 students in the Faculty of Education. The research

found that both student groups recognized the importance of AI in their future professions, with a slightly higher perception of its importance among economics and business management students. However, the study also revealed that the surveyed population, including both groups, was not familiar with AI concepts, indicating a lack of comfort with the nomenclature related to artificial intelligence. The study also involved a qualitative analysis of the student's written opinions, focusing on the benefits and limitations of AI tools like WriteSonic, as well as the advantages and risks of AI in their respective fields.

The study adhered to ethical principles and obtained informed consent from all participants. The data from the study is openly available and associated with a research project funded by the Ministry of Science and Innovation and co-financed by the European Union and the Spanish State Research Agency (Almaraz-López et al., 2023: 15).

CONCLUSION

The integration of artificial intelligence into higher education is not merely a trend but a necessity in preparing students for the future workforce. As AI continues to permeate various sectors, including finance, accounting, economics, and business management, universities must adapt their curricula to reflect these changes. This research underscores the importance of equipping students with the knowledge and skills to navigate an AI-driven world. The studies examined in this paper reveal a growing awareness among students and graduates of the significance of AI in their professional lives. However, there remains a gap between the theoretical understanding of AI and its practical application. This highlights the need for a more comprehensive approach to AI education, one that goes beyond theoretical concepts and delves into real-world applications. To bridge this gap, universities must take proactive measures. This includes integrating AI courses across various disciplines, ensuring that students from all backgrounds have the opportunity to learn about AI's potential and limitations. Additionally, it is crucial to provide instructors with the necessary training and resources to effectively teach AI concepts and applications. As Folmeg (2024) emphasizes, instructors bear the responsibility of not only imparting technical knowledge but also instilling ethical considerations in AI use. Furthermore, collaboration between academia and industry is essential. By partnering with companies at the forefront of AI development, universities can offer students practical, hands-on experience with AI tools and technologies. This will not only enhance their technical skills but also provide them with valuable insights into how AI is being used to solve real-world problems. In conclusion, the integration of AI into higher education is a multifaceted challenge that requires a comprehensive and collaborative approach. By updating curricula, training instructors, and fostering industry partnerships, universities can empower students to become ethical and competent users of AI. This will not only boost their employability but also prepare them to contribute meaningfully to an AI-driven future. The rapid pace of AI development necessitates continuous adaptation and innovation in higher education. By embracing AI as a tool for learning and growth, universities can ensure that their students are well-prepared to thrive in the 21st-century workforce.

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