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A Transnational Study on Artificial Intelligence for Professional and Pedagogical Practices in Higher Education - Insights from the INFINITE Project

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**Διακρατική Μελέτη για την Τεχνητή Νοημοσύνη στις Επαγγελματικές και
Παιδαγωγικές Πρακτικές στην Ανώτατη Εκπαίδευση - Συμπεράσματα από το έργο
INFINITE**

**A Transnational Study on Artificial Intelligence for Professional and Pedagogical
Practices in Higher Education - Insights from the INFINITE Project**

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Abstract

This paper presents findings from the European project INFINITE, which explores the integration of Artificial Intelligence (AI) into professional and pedagogical practices in Higher Education (HE). Amid rapid social and technological change, developing AI-related competencies has become a priority for the academic community. The project seeks to empower faculty and students to use AI critically, responsibly, and with strong ethical awareness. The methodology combined desk research with a needs analysis survey conducted in five partner countries (Cyprus, Greece, Ireland, the Netherlands, and Belgium) involving 259 participants, including faculty members and students. Results show AI's diverse applications in HE: supporting research through data analysis and literature reviews; streamlining administration by automating processes and enabling data-driven decision-making; and enhancing pedagogy through personalised learning, improved assessment, and accessibility support. However, significant challenges emerged. Concerns include data privacy, algorithmic bias, overreliance on AI, tool reliability, and the urgent need for professional development and policy frameworks. Addressing these requires structured training, clear institutional guidelines, and collaboration among academics, students, and policymakers. The INFINITE project contributes to this effort by developing an AI Literacy Toolkit, an AI Digital Hub, capacity-building programmes, and strategic actions. These initiatives support the digital transition of HE while fostering a shared, responsible understanding of AI use.

Keywords

Artificial Intelligence (AI), AI in Education (AIED), Higher Education (HE), INFINITE

Introduction

Artificial Intelligence (AI) remains a key priority for Europe, as labour demands will change significantly, either requiring skills that do not yet exist or being replaced by AI. Therefore, preparing for AI is essential for all individuals and forms the basis for effective human-machine collaboration (Kong et al., 2021), since neglecting it could lead to division and inequality (Yi, 2021). Various reports and strategic initiatives focus on improving AI-related skills. The second priority of the Digital Education Action Plan

(EU, 2020) highlights the importance of developing digital skills from an early age, including a strong understanding of data-driven technologies such as AI. The OECD Learning Compass 2030 (OECD, 2019) encourages integrating intelligence with AI, enhancing the skills, knowledge, attitudes, and values needed to live and work in an AI-enabled world. UNESCO's initiative on AI and the Future of Learning (UNESCO, 2024) aims to establish a framework for AI competencies. In the European Commission's updated coordinated plan on AI (EU, 2021), member states are urged to expand access to AI-focused training in non-technical fields (e.g., humanities) and lifelong learning opportunities, teaching individuals about AI fundamentals and their impact on various fields and careers. The plan builds on the white paper on Artificial Intelligence (EU, 2020a), emphasising the importance of reskilling and upskilling people to succeed in an AI-driven era. Furthermore, one of the key pillars of the European Strategy for Universities (EU, 2022) is to develop skills and promote innovation for the digital transition. The importance of acquiring AI-related skills, knowledge, and attitudes as a digital citizen is also reflected in initiatives such as DigComp and the EU Artificial Intelligence Act (EU, 2025).

To bridge the gap between the need for digital transformation and the unpreparedness of Higher Education Institutions (HEIs), INFINITE (<https://infinite-erasmus.eu>) is developing the skills of the academic community to utilise AI-based tools in professional and pedagogical practices. In this context, INFINITE aims to prepare faculty to critically and ethically use AI-based technology in their professional and pedagogical activities. Through INFINITE, faculty members will be able to explore the capabilities of AI-driven infrastructure and stay informed about AI advancements, employing them for professional tasks (e.g., communication, collaboration, engagement, reflection, lifelong learning) and pedagogical practices (e.g., teaching, learning, assessment), with a sense of ethical responsibility. Additionally, HE students' skills in using AI for learning will be enhanced through a dedicated blended course and in-class implementation. More specifically, the work package "AI Literacy Toolkit" aimed to conduct desk research on domestic and EU literature to identify current practices, case studies, and principles related to AI tools and approaches for professional and pedagogical practice. Additionally, an AI Needs Analysis Survey was

carried out to explore in depth the specific challenges faced by HE faculty and students in using AI in HE.

This study presents findings from the needs analysis survey carried out in the partner countries: Greece, Cyprus, Ireland, the Netherlands, and Belgium. The paper is organised as follows: the initial section provides a theoretical overview of AI in HEIs. Next, the methodology used in this research is outlined, followed by the presentation of findings. Finally, the last section discusses these results and concludes with the application of AI in professional and pedagogical practices within HEIs in these countries.

AI in Education (AIED)

Artificial Intelligence in Education (AIED) has been a significant research area since the 1970s, with AI and education closely connected from the early days of AI (Doroudi, 2022). By combining theoretical insights with practical application, AIED aims to develop core theories for integrating AI into education while also designing tools to enhance the learning experience and outcomes (Holmes & Porayska-Pomsta, 2022). Despite growing awareness of AIED's potential, driven by evidence-based educational policies (OECD, 2021), it has probably only now moved from experimentation to real implementation in educational settings. Researchers in the field focus on one-to-one human tutoring by machines, personalised learning, and AI tools that support teaching, learning, assessment, and management.

In this context, Ouyang & Jiao (2021) classify AIED into three distinct paradigms: AI-directed, AI-supported, and AI-empowered. As Adiguzel et al. (2023) describe, the AI-directed approach views the learner as a recipient of AI interventions, mainly influenced by behaviourist theories, where AI organises and guides cognitive processes, with the learner passively receiving AI-led instructions. In contrast, the AI-supported paradigm, grounded in mental and social constructivist theories, considers learners as collaborators, actively engaging with AI tools to support their learning process. Lastly, the AI-empowered paradigm, inspired by connectivism theory, sees learners as leaders of their learning journeys. Here, AI acts as an enabler, allowing learners to take control of their educational experiences and fostering a synergistic

collaboration among various entities, including the learner, educator, information, and technology to bolster the learner’s intelligence.

Regarding AI in HEIs, as Bond et al. (2023) summarise in their meta-systematic review, the evolution of AIED can be traced back several decades, showcasing a rich history of blending educational theory with emerging technology. As the field developed, research examined various aspects of AIED, including intelligent tutoring systems, adaptive learning environments, supporting collaborative learning environments, chatbots, automated grading, and predictive analytics. To better understand the applications of AI in HE and to guide the field, Zawacki-Richter et al. (2019) created a typology (Figure 1), categorising research into four main areas: a) profiling and prediction, b) intelligent tutoring systems, c) assessment and evaluation, and d) adaptive systems and personalisation.

Profiling & Prediction	Intelligent Tutoring Systems	Assessment & Evaluation	Adaptive Systems & Personalization
<ul style="list-style-type: none"> -Admission decisions & course scheduling -Drop-out & retention -Student models & academic achievement 	<ul style="list-style-type: none"> -Teaching course content -Diagnosing strengths & automated feedback -Curating learning materials based on student needs -Facilitating collaboration between learners -Teacher's perspective 	<ul style="list-style-type: none"> -Automated grading -Feedback -Evaluation of student understanding, engagement & academic integrity -Evaluation of teaching 	<ul style="list-style-type: none"> -Teaching course content -Recommending personalised content -Supporting teachers in learning and teaching design -Using academic data to monitor & guide students -Representation of knowledge

Figure 1: AIED Typology (Zawacki-Richter et al., 2019)

Furthermore, since 2023, with the rise of Generative AI (GenAI), there has been rapid growth in research interest in AIED (Yim & Su, 2024). The use of this technology has sparked debate in education about preparedness, ethics, trust, impact, and the added value of AI, as well as the need for governance, regulation, research, and training to keep pace with the swift and widespread changes in teaching and learning driven by AI (Bond et al., 2023).

GenAI tools can revolutionise HEIs by improving relevance and sustainability (Baidoo-Anu & Owusu Ansah, 2023), but they also pose challenges for learning and teaching (Crawford et al., 2023). From personalised platforms to automated grading, AI

enhances education and learning outcomes in numerous ways (Mambile & Mwogosi, 2025).

Kostas et al. (2025) summarise the advantages and disadvantages of GenAI tools in supporting HE students. These tools can process large amounts of textual data, offer personalised study recommendations, develop chatbots and virtual assistants, enable adaptive and creative learning, function as intelligent tutors, promote positive outcomes, build competencies, and act as co-researchers. However, challenges include inaccuracies, plagiarism, discrimination, privacy concerns, overreliance, ethical issues, gaps in critical skills, bias, misunderstandings, and limited reliability (Kostas et al, 2025).

Considering the complex concerns regarding GenAI in HE and the risk of oversimplifying education, it is crucial to evaluate its benefits and drawbacks to make informed, ethical decisions (Kim & Adlof, 2023). HEIs must guide students by assessing their perceptions, concerns, and experiences, which are essential for shaping GenAI's integration (Deng et al., 2025). Understanding these interactions helps inform policy and research, supporting the development of a research-based approach to teaching in modern HE.

In this context, the desk research conducted as part of the INFINITE project's work package "AI Literacy Toolkit", revealed various dimensions of AIED in HEIs across partner countries, by answering three questions, as summarised below.

What are the current uses of AI-based tools in professional and pedagogical practice within HE?

On the professional side, AI streamlines administrative processes by automating tasks such as scheduling, attendance, resource allocation, and document management, reducing errors and saving staff time. AI-driven analytics provide institutions with valuable insights into student performance and resource use, supporting strategic planning and curriculum development. In research, AI accelerates progress by assisting with literature reviews, data analysis, image generation, and speech-to-text conversion, enabling faster and broader academic exploration. *Pedagogically*, AI enables personalised learning by adapting content and instruction to individual needs. It enhances assessment and feedback through automated tools and supports accessibility with chatbots, virtual tutors, and assistive technologies. Moreover, AI

fosters engagement with recommendation engines, adaptive learning environments, and collaborative chatbots. These innovations not only improve learning efficiency but also cultivate critical thinking, problem-solving, and language skills among students.

What are the risks of AI-based tools in HE teaching and learning?

From an ethical and legal standpoint, AI raises concerns about student privacy, as its reliance on large datasets makes data security essential. Biased algorithms risk perpetuating inequalities, while generative AI tools challenge academic honesty by enabling inauthentic work. Additionally, the “black box” nature of AI decision-making creates accountability issues when outcomes lack transparency. Technological and implementation challenges include the complexity of AI models, vulnerability to data breaches, and the high costs of infrastructure and staff training. Limited access to AI tools may also increase inequalities between institutions and countries. Finally, educational risks stem from overreliance on AI in grading or assessment, which may reduce human oversight and hinder the development of critical thinking and problem-solving skills. Resistance from educators unfamiliar with AI highlights the importance of ongoing professional development to promote responsible and effective adoption.

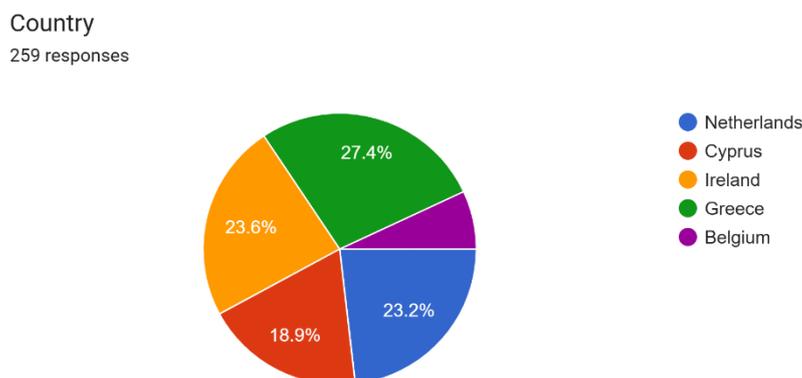
What impact does AI have on how university teachers and students teach and learn?

AI offers transformative possibilities for HEIs, reshaping both teaching and learning. Positively, AI can personalise learning experiences, automate routine tasks, and provide advanced assessment methods. By adapting content and feedback to individual needs, AI enables educators to dedicate more time to personalised interactions. Performance analytics facilitate targeted interventions, while AI-driven simulations create immersive experiences that boost engagement and deepen understanding. Importantly, integrating AI helps students develop vital skills such as critical thinking and problem-solving, preparing them for an AI-driven future. However, these advantages are accompanied by significant challenges. Overdependence on AI risks diminishing human interaction and stifling innovation in teaching, while a focus on standardisation may constrain creativity and critical evaluation. Ethical concerns related to privacy, bias, and commercialisation necessitate robust frameworks to ensure fairness. Educators must adapt to new roles and enhance digital literacy, while unequal access to technology could exacerbate

existing inequalities. Thoughtful and ethical integration is essential to harness AI's full potential responsibly.

Methodology

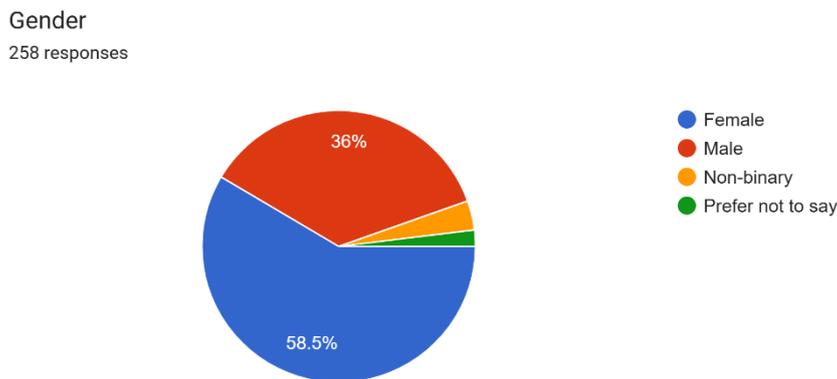
As previously noted, this research was part of the work package "AI Literacy Toolkit," which involved desk research to review national and EU literature to identify current practices, case studies, and principles related to AI tools and approaches for professional and pedagogical practice. It also included an online needs analysis survey to understand better the current needs and challenges of integrating AI into each partner's country context. For the online survey, an ad-hoc questionnaire (Appendix A) was created based on the desk research findings, comprising six sections: a) Demographic data, b) AI human agency and ethics, c) AI tools, d) AI for pedagogical practices, e) AI for professional practices, and f) AI for learning. The target group included staff at HEIs (such as instructors, researchers, academics, eLearning designers, developers, etc.) and students. Five partner countries (CY, NL, IR, GR, BE) and six organisations (UNIC, CARDET, RUG, UCD, ALLDigital, UAegean) participated in administering the online questionnaire via Google Forms (Picture 1).



Picture 1: Participation per country

The questionnaire was completed by 259 members of the project's target group, including 132 HEIs staff and 127 students. Participants were recruited through emails sent to staff and students at partner institutions and organisations in various countries, as well as through social media posts. They came from diverse backgrounds,

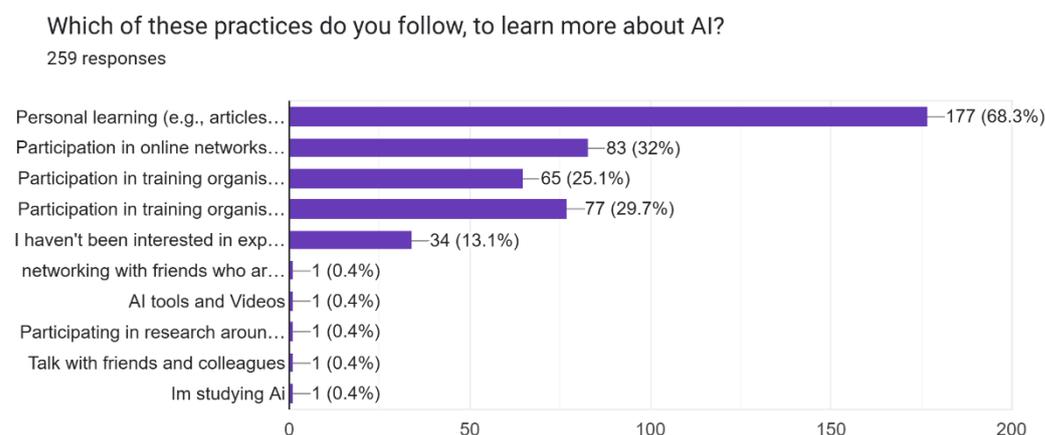
with an average age of 34 years. Of the total 259 participants, 151 identified as female, 93 as male, 9 as non-binary, and 6 preferred not to disclose (Picture 2).



Picture 2: Survey participants' profile

Results

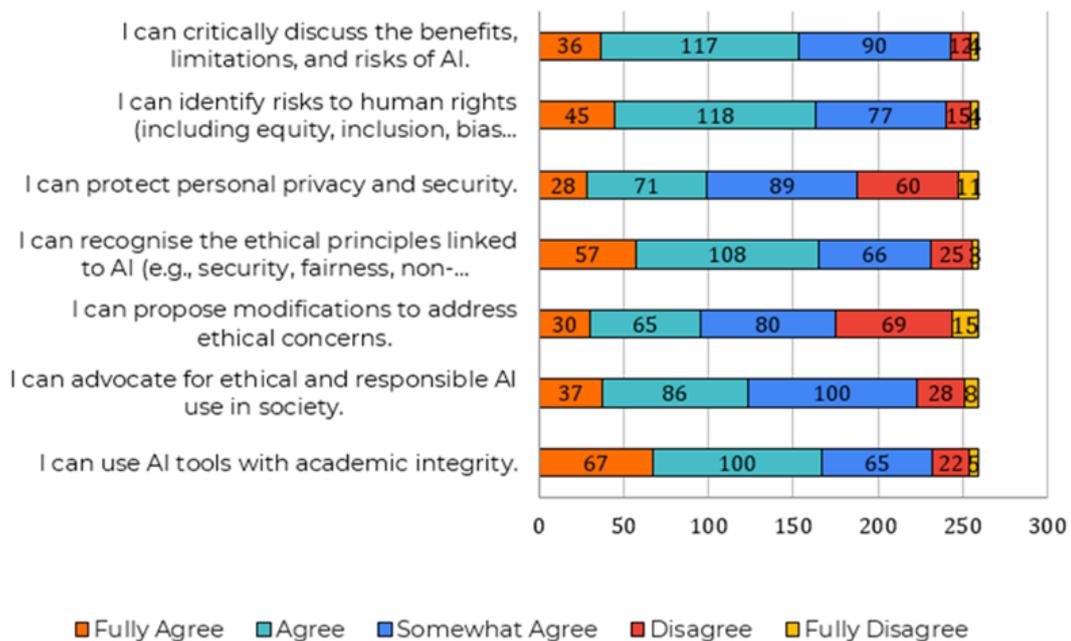
Regarding the question “**Which of these practices do you follow, to learn more about AI?**”, an interesting fact is that most respondents indicated they prefer informal methods such as “Personal learning (e.g., articles reading, podcasts, etc.)” or “Participation in online networks (e.g., Facebook, LinkedIn groups, etc.)” to learn more about AI (Picture 3).



Picture 3: Survey participants' learning about AI practices

Regarding the topic “**AI Human Agency and Ethics,**” participants, including both staff and students, were asked to rate their agreement on seven items related to AI, human

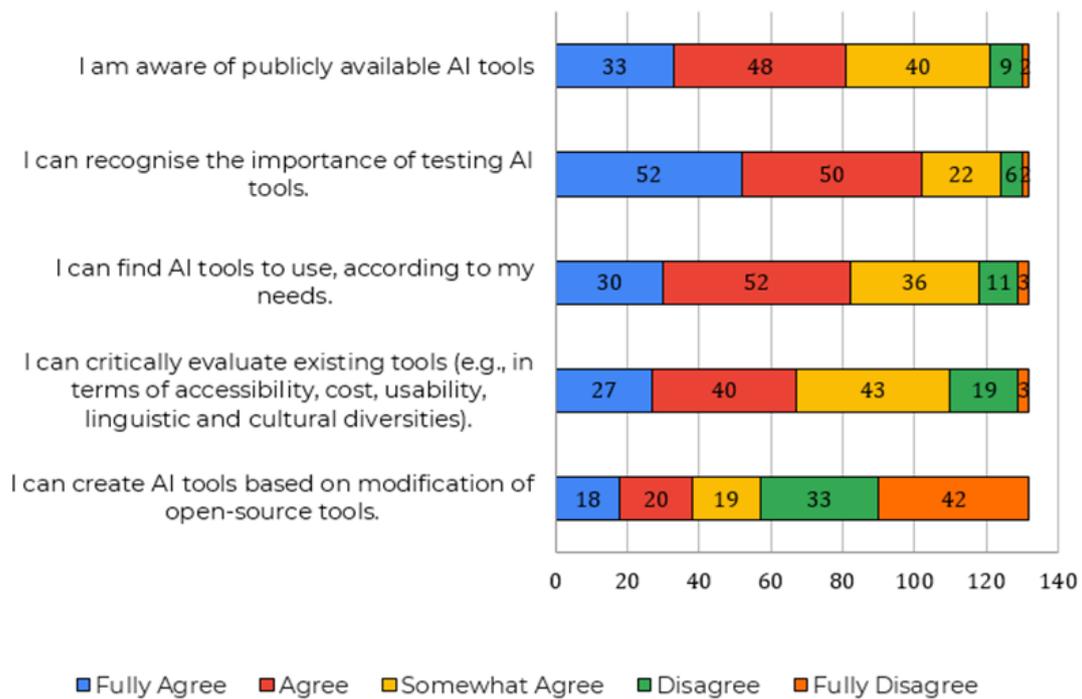
agency, and ethics using a 5-point Likert scale, where "Fully agree" is rated as point 5 and "Fully disagree" as point 1. The data shows (Picture 4) that the majority of participants agree with the statements "I can critically discuss the benefits, limitations, and risks of AI," "I can identify risks to AI (including equity, inclusion, bias amplification)," "I can use AI tools with academic integrity," and "I can recognise the ethical principles linked to AI (e.g., security, fairness, non-discrimination, the right to privacy, data protection, transparency, explainability, etc.)." Additionally, most participants expressed somewhat agreement levels for the statements "I can protect personal privacy and security," "I can advocate for ethical and responsible AI use in society," and "I can propose modifications to address ethical concerns." This indicates a widespread consensus among participants regarding the importance of ethical AI practices, safeguarding personal privacy, and engaging in critical discourse on AI-related issues.



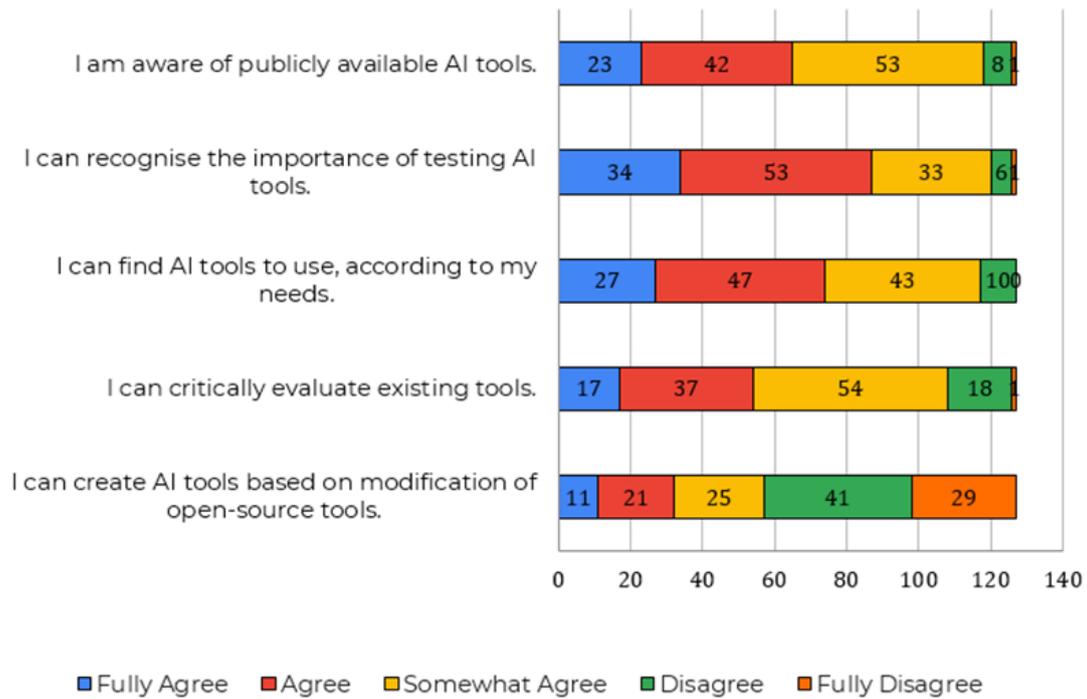
Picture 4: AI human agency and ethics

Regarding the topic "AI Tools", results reveal valuable insights into respondents' perceptions of AI tools (Pictures 5 and 6). Most staff (48 out of 132) consider themselves aware of publicly available AI tools, whereas most students (53 out of 127) are moderately aware (somewhat agree). Additionally, most staff and students emphasised the importance of testing these tools, demonstrating a shared focus on

proper evaluation. Furthermore, respondents expressed confidence in finding publicly available AI tools that meet their specific needs. However, a gap appears in their comfort level with creating custom AI tools. Specifically, most staff (42) strongly disagree, and most students (41) disagree with the idea of modifying open-source tools. This indicates a potential need for further development in this area. Addressing these challenges through targeted education and resource allocation could promote greater adoption and utilisation of AI tools in educational settings.

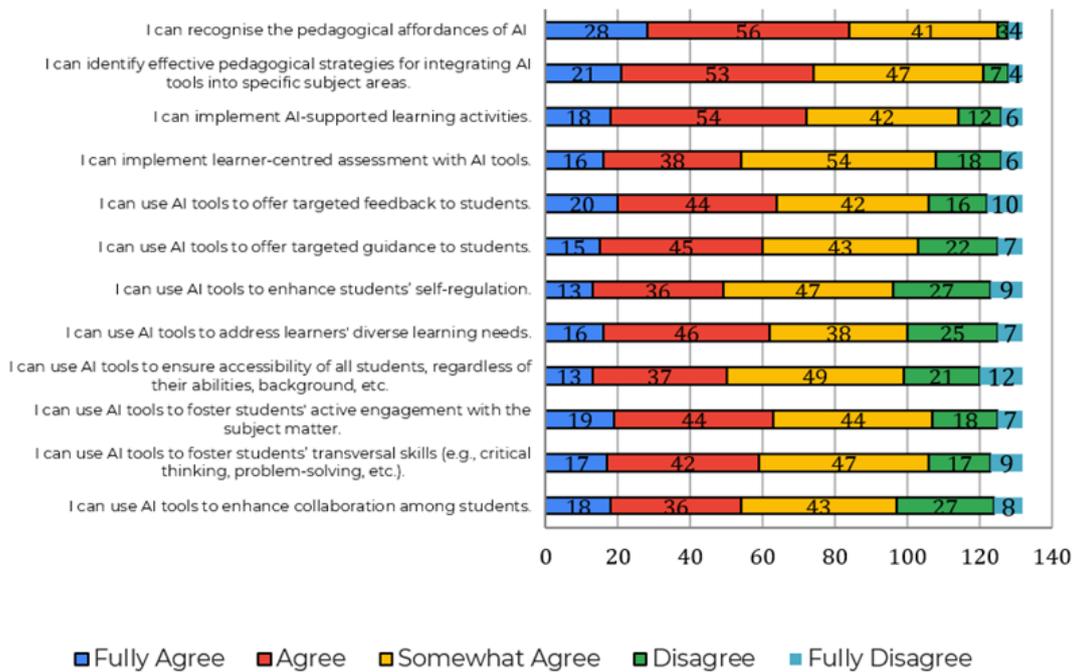


Picture 5: AI tools (staff opinions)



Picture 6: AI tools (students' opinions)

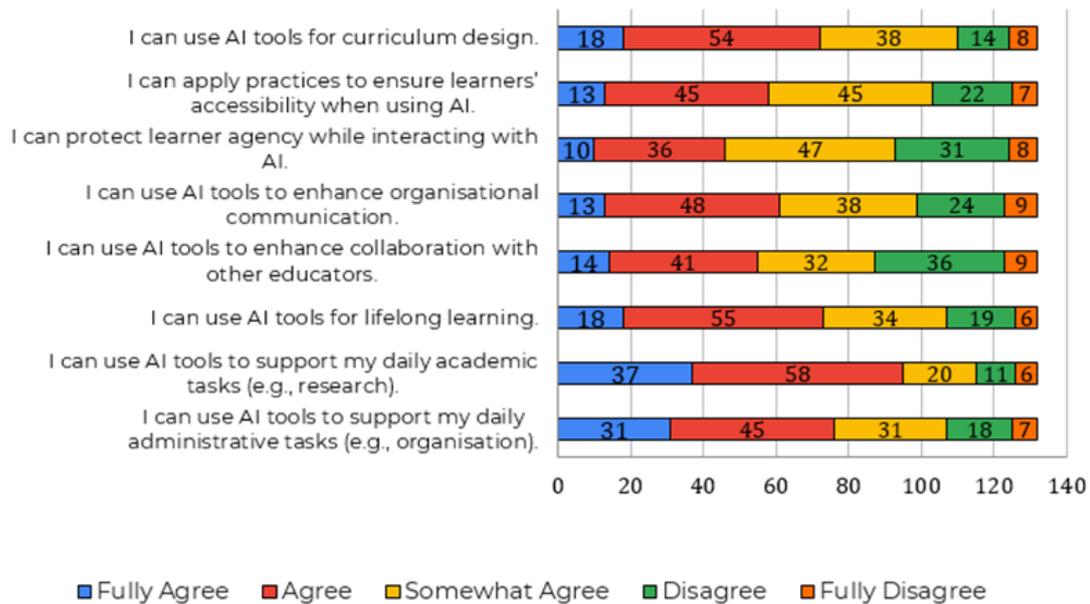
Regarding the topic “AI for pedagogical practice”, educators express confidence in their ability to identify effective strategies, implement AI-supported learning activities, and recognise the pedagogical opportunities of AI (Picture 7). However, as the responses show, educators remain uncertain and hesitant about how AI could be further utilised to conduct learner-centred assessments, provide targeted feedback and guidance to students, and promote students' active engagement and transversal skills. Similarly, they do not feel sufficiently confident in using AI tools to enhance students' self-regulation, foster collaboration, and ensure accessibility and accommodation of diverse learning needs



Picture 7: AI for pedagogical practice

Regarding the topic “AI for professional practice” there are varied opinions among staff about using AI tools for research tasks (Picture 8). While 58 individuals indicated they can apply practices to ensure learners’ accessibility when using AI (13 fully agree and 45 agree), another 45 are uncertain, and the rest do not agree. Similarly, although educators showed promise for using AI in organisational communication (13 fully agree, 48 agree), some uncertainty and disagreement also exist (38 somewhat agree, 24 disagree, and 9 fully disagree). Providing resources on how AI tools can enhance communication could help address this gap. However, interest in other AI applications appears stronger. Ninety-five (95) and eighty-six (86) respondents highlighted AI's potential to support their daily academic and administrative tasks, respectively. Notably, although 73 felt confident using AI for ongoing learning throughout their careers, 34 were unsure about these opportunities, and 25 disagreed or fully disagreed. Educators' responses regarding AI collaboration with colleagues were mixed (55 agree/fully agree versus 68 disagree/somewhat agree). While a slight majority see value, many lack confidence in this area. This suggests educators need additional information and practical examples to feel assured that AI can enhance collaboration. Additionally, 72 respondents recognised AI's potential in curriculum design by strongly agreeing or agreeing with the relevant statement. It is also notable

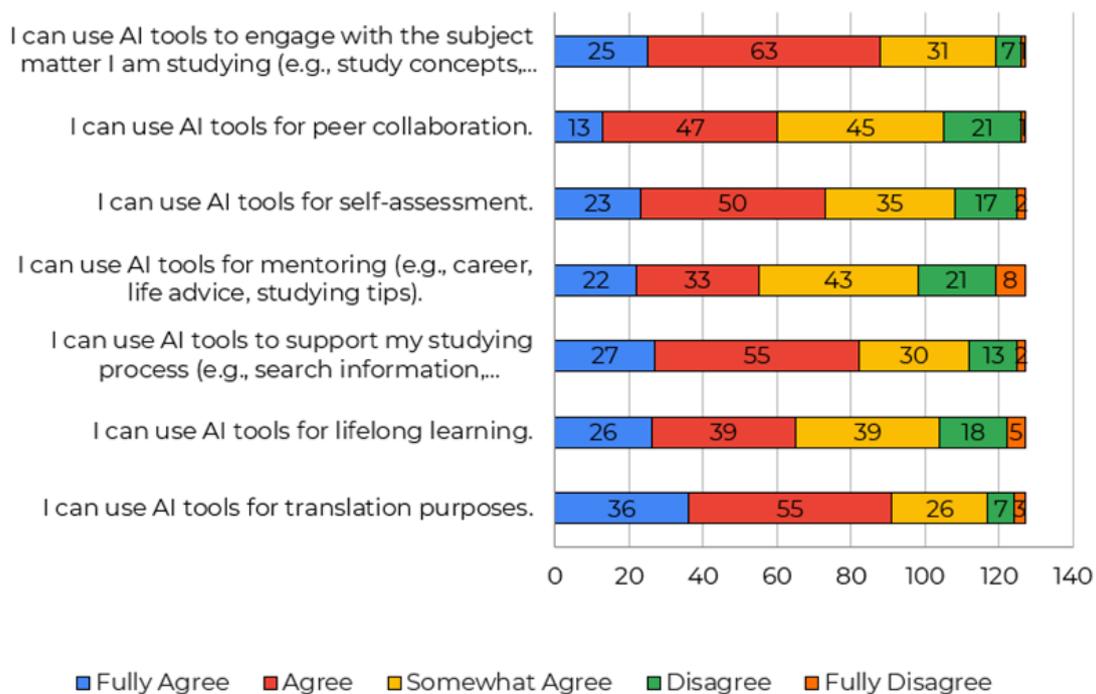
that 47 individuals somewhat agree that they can ensure learner safety when interacting with AI, while 39 (31 disagree and 8 fully disagree) expressed safety concerns about students when AI is involved, emphasising the importance of ethical considerations in AI use within professional contexts. Overall, these findings indicate that although staff are somewhat open to AI, there remains a strong emphasis on responsible and ethical use.



Picture 8: AI for professional practice

Regarding the topic “AI for learning”, responses from HE students about using AI tools for educational purposes are encouraging (Picture 9). Support for the study process, such as searching for information and writing essays, receives strong approval, with 64.6% of students either agreeing or strongly agreeing. Additionally, a similar number of participants (69.3%) agree or fully agree that they can utilise AI tools to engage with their subject matter. The translation category also received a high percentage of agreement, with 71.7% of students either agreeing or fully agreeing, indicating broad awareness of translation tools and a positive outlook towards AI translation adoption. Over half (57.5%) of respondents agree or fully agree that they could use AI tools for self-assessment. However, while most respondents (47.2%) either agree or strongly agree that they could use AI tools for peer collaboration, 35.4% somewhat agree with the statement, suggesting room to increase confidence and experience with these tools in this context. This also points to potential growth and the need for educational

initiatives. Responses regarding AI mentoring show cautious optimism: 43.3% agree or strongly agree that they could use AI tools for mentoring. In comparison, many (33.9%) express reservations about AI’s role compared to human mentors or limitations in specific areas. Importantly, HE students are equally split between agreeing and somewhat agreeing (30.7% each) about using AI tools for lifelong learning. While the positive responses indicate growing acceptance of AI in lifelong learning, some students remain cautiously optimistic—possibly because they are not yet fully confident or aware of how to use AI tools effectively for specific purposes. This underscores the importance of initiatives to help students develop the skills and knowledge needed to leverage AI tools for lifelong learning.



Picture 9: AI for learning

Regarding the open-ended questions, participants' comments shed light on the challenges they face when integrating AI into their daily educational routines. Participants provided insights into various challenges hindering the integration of AI into their daily practices, categorised into five themes. Each category highlights distinct challenges faced by participants in the partner countries when integrating AI into their respective fields or practices.

Ethics and Budget Concerns

Across all five countries, educators voiced concerns about the ethical issues of using AI in professional and teaching practices. Data privacy, algorithmic bias, and the risk of misuse were all emphasised. Budget constraints were another major concern, with educators worried about the expense of AI tools and the costs of providing safe access for students. Copyright issues also arise within the ethical sphere. Additionally, some educators expressed fears that AI could negatively affect essential skills, such as writing.

Training and Time Constraints

Educators worldwide highlighted a significant challenge in keeping up with the rapid pace of AI development. The continuous stream of new tools and the swift evolution of the field make it difficult for them to find time to learn and implement these technologies effectively. Adding to this challenge is a lack of sufficient training. Educators reported feeling inadequately prepared, and many emphasised the need for both basic and specialised training for themselves and their students. This specialised training is essential for educators to fully understand the potential of AI and utilise it to improve their teaching methods, as well as for students to develop the necessary skills to navigate this increasingly AI-driven world.

Effectiveness and Reliability

Beyond the ethical, time, and training challenges, educators and students expressed concerns about the effectiveness and reliability of AI tools themselves. A recurring issue was the accuracy of AI-generated information, with respondents emphasising the need for fact-checking to prevent misleading students. Concerns were also raised about the lack of specificity in AI responses and the potential for unreliable source findings in research tasks. These limitations highlight the importance of careful evaluation when using AI in education. Educators must be critical of the information AI provides and ensure it aligns with their teaching objectives. This critical assessment extends to students as well, who must learn to critically evaluate information encountered through AI, developing essential skills for navigating the increasingly information-rich world.

Educational Adaptation

Respondents from all countries highlighted challenges in adapting their teaching practices to effectively incorporate AI. A major concern was ensuring alignment between AI tools and existing curricula to optimise learning outcomes. Additionally, educators expressed a need for practical guidance on implementing AI in the classroom, including considerations for different age groups. The potential impact on student development was also a concern, with some educators worried that overreliance on AI could hinder critical thinking skills. Finally, educators in some countries called for the development of clear policies around AI use in education to ensure responsible integration. These findings emphasise the need for ongoing collaboration between educators, curriculum developers, and AI specialists to create a framework for successful AI integration in the classroom.

Specific Needs and Practical Resources

Educators highlighted various practical challenges associated with using AI in the classroom. These included concerns about the scarcity of readily available resources, such as powerful computers and large datasets, which can be expensive for some institutions. Additionally, educators expressed a need for more specific tools and functionalities, like the ability to incorporate graphics and access scientific databases. Beyond technical limitations, some educators are also worried about AI's potential impact on creativity in the classroom. A common theme was the need for practical guidance and support. Educators requested resources to help them design effective prompts, navigate the ethical implications of AI use, and collaborate with colleagues to integrate AI into their teaching practices. These findings emphasise the importance of developing user-friendly AI tools and providing educators with the necessary training and support to harness AI effectively in their classrooms.

Discussion

Recognition of Benefits and Applications

Desk research and the AI Needs Analysis Survey show AI's broad impact on HE, mainly on professional and pedagogical practice. *Administratively*, AI simplifies tasks, saves time, and supports data-driven decisions. Research benefits from faster literature

reviews and analysis. *Pedagogically*, AI personalises learning, provides tailored feedback, and improves accessibility via virtual tutors. It also boosts engagement through recommendation engines and flexible environments, supporting critical thinking and problem-solving. The survey reinforced AI's positive outlook, with most participants able to discuss benefits, risks, and ethics. Staff and students reported comfort with AI tools for research, administration, and learning support. Students valued AI particularly for information search, writing support, subject engagement, and self-assessment. Overall, findings highlight AI's potential to enhance learning, empower educators, and support lifelong learning.

Common Challenges and Concerns

Desk research and surveys also revealed risks: data privacy, algorithmic bias, and the opaque “black box” nature of AI. While staff and students showed awareness of AI ethics, the survey highlighted low confidence in safeguarding privacy and ensuring responsible use. Other issues include tool complexity and the risk of overreliance. Educators recognised AI's potential but were uncertain about its role in assessment and collaboration. Students valued AI's support yet expressed concerns about dependence, underscoring the need for balanced, ethical use.

Implications for Educational Practices

Findings emphasise the need for a balanced strategy in AI integration. Training educators, providing ethical guidelines, and increasing institutional support are vital. Educators must be equipped to evaluate and implement tools effectively, while students need critical thinking skills to assess AI outputs responsibly. Addressing data privacy and bias through clear protocols is essential. A comprehensive approach—including user-friendly tools, national AI policies, and institutional guidelines—can help institutions harness AI's benefits, prepare graduates for the workforce, and foster responsible innovation.

Recommendations for Future Research and Policy

Future work should focus on two goals: building ethical frameworks and promoting collaborative AI development with educators. Frameworks must address algorithmic

bias and AI's long-term effects on critical thinking and lifelong learning. Collaboration between educators and technologists can ensure customised solutions, knowledge sharing, and innovative learning experiences. Expanding access to AI training and resources will build digital fluency and encourage responsible use. Policymakers play a crucial role by developing ethical standards, privacy rules, and accountability frameworks. Investment in teacher training and professional development is key, as is fostering collaboration between institutions, technology providers, and researchers. Given risks of malicious AI use, governments must also prioritise cybersecurity and counter misinformation. By establishing supportive policies, governments can accelerate responsible AI integration, benefiting learners, educators, and society.

Conclusions

This transnational study employed desk research and field surveys across Cyprus, the Netherlands, Greece, Ireland, and Belgium to investigate AI integration in HE. AI tools are transforming both professional and pedagogical practices. In professional settings, AI streamlines administration, supports strategic planning through data analytics, and aids research with literature reviews, data analysis, and content creation. In teaching, AI personalises learning, facilitates assessment and feedback, generates engaging materials, and provides student support through virtual tutors and chatbots. These tools improve engagement, accessibility, and inclusivity. The study also highlights challenges in ethical AI adoption. Issues such as data privacy, bias, and misuse require attention, while the fast-paced development of AI necessitates training and capacity-building for educators. Ensuring equitable access and reducing algorithmic bias demand collaboration among educators, policymakers, and developers. Concerns were expressed regarding the accuracy, specificity, and reliability of AI responses, underscoring the importance of fact-checking and quality resources. Guidelines and training on responsible AI use, including source evaluation, are essential. Adjusting teaching practices to effectively incorporate AI remains a key challenge. Aligning AI tools with curricula, offering practical classroom guidance, and supporting tool customisation are priorities. Educators stressed the importance of a shared understanding of AI in HE, policies to steer responsible integration, and safeguarding critical thinking from overdependence on AI. The findings suggest a multifaceted

approach: addressing ethical considerations, supporting educators with training, and developing user-friendly, reliable tools. Collaboration among educators, curriculum developers, and AI specialists is crucial to creating a framework that enhances learning. Limitations of the study, including contextual specifics and survey biases, underline the need for ongoing research. The INFINITE project can assist this process through its AI Literacy Toolkit, Digital Hub, and training courses, alongside an Action Plan for HEIs to promote collaboration and shared understanding.

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