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AI AS A CREATIVE PARTNER: HOW ARTIFICIAL INTELLIGENCE IMPACTS STUDENT CREATIVITY AND INNOVATION: CASE STUDY OF STUDENTS FROM LATVIA, UKRAINE AND SPAIN

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Abstract. This study explores students' perceptions of Artificial Intelligence (AI) in the educational process, focusing specifically on creativity and confidence. As AI technology becomes increasingly integrated into higher education, understanding its impact on students' creative development and their confidence in using AI tools is crucial for shaping effective educational practices. To this end, a comprehensive questionnaire was designed and distributed to higher education students across Latvia, Ukraine, and Spain, resulting in a diverse sample of 89 respondents. The survey collected data on demographic information, general AI usage in education, and students' attitudes towards AI's impact on creativity. To analyse the data, the Kruskal-Wallis test was employed to examine country-based differences in AI usage frequency. The results showed no significant variance ($p = 0.448$). This finding led to the rejection of the hypothesis that students from EU countries use AI more frequently than those from non-EU countries. Descriptive data analysis revealed that 83% of students felt AI did not limit their creative expression, and 69% reported a positive impact on their ability to generate creative solutions. However, only 47% of students expressed confidence in using AI collaboratively, indicating mixed perceptions about its role in group creative tasks. These results suggest that while students generally view AI as supportive of their creativity, there is a need for increased efforts to enhance confidence in AI's collaborative and creative applications. In light of the escalating significance of AI in educational settings, this study is pivotal in elucidating the optimal integration of AI to nurture students' creative growth and fortify their confidence in the effective utilisation of AI tools. This research makes a significant contribution to the field by offering valuable insights into the evolving role of AI in higher education, emphasising the importance of balanced integration strategies for maximising its potential in the educational sphere.

Keywords: education, artificial intelligence, creativity, quality, students.

JEL Classification: A20, I21, I30

1. Introduction

In recent years, the integration of Artificial Intelligence (AI) into higher education has given rise to considerable debate among educators, researchers and policymakers. As AI technologies become more sophisticated, their potential to transform teaching and learning processes is indisputable. Nevertheless, there remains a paucity of research in this area, particularly with regard to the impact of AI on student creativity and innovation. While the efficiency and accessibility of education is often lauded as a key benefit of AI, its impact on students' creative abilities, particularly within the context of higher education, remains a subject of ongoing research and discussion.

This study aims to address this gap by investigating the ways in which AI affects student creativity, particularly in terms of enhancing or hindering creative thinking in academic settings. The pertinence of this research is twofold: firstly, it is informed by the increasing utilisation of AI tools within educational environments; and secondly, it is driven by concerns regarding the possibility of these tools impeding

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critical thinking or fostering dependency. Despite the widespread adoption of AI in education, empirical studies specifically examining its impact on creativity are scarce, especially in cross-cultural contexts. This paper aims to fill this gap by exploring students' attitudes towards the role of AI in enhancing or limiting creativity, with a focus on students from higher education institutions in Latvia, Ukraine and Spain.

The research goal is to analyse students' perceptions of the influence of AI on their creative processes, including the role AI plays in both individual and collaborative creative activities. The study objectives include identifying the extent to which students perceive that AI enhances or limits their creative thinking, and understanding the factors that influence these perceptions across different national and educational contexts. The methodology involves a cross-national survey of students from different disciplines, with data analysed using statistical tests such as the Kruskal-Wallis test. Limitations of the study include a relatively small sample size and a focus on self-reported perceptions, which may not fully capture the complexity of AI's impact on creativity.

2. Literature Review

Understanding AI

The term 'artificial intelligence' was first coined during a 1956 workshop at Dartmouth College, in Hanover, New Hampshire, United States, to denote the *"science and engineering involved in creating intelligent machines, particularly intelligent computer programs"* (Miao et al., 2021). A proposal was submitted for a two-month, ten-person study on artificial intelligence to be conducted during the summer months. The study was predicated on the hypothesis that every aspect of learning, or any other feature of intelligence, could be described in such precise terms that a machine could simulate it. The aim of the research was to explore *"how to get machines to use language, to form abstractions and concepts, to solve the kind of problems that are now the province of human beings, and to improve themselves"* (McCarthy et al., 1955). This statement laid the foundation for the development of AI as a field of study.

Since the advent of deep learning in the early 2010s, it has profoundly transformed the domain of scientific discovery, enabling AI to assume a pivotal role in research across various disciplines (Wang et al., 2023). Artificial intelligence (AI) has emerged as a pivotal catalyst of industrial transformation, endowing machines with the capacity to execute tasks autonomously (Ahmed, Jeon, and Piccialli, 2022). Technological advancements stemming from the third industrial revolution, particularly in the domains of computing and internet technologies, have established the foundational infrastructure necessary for the accelerated development of AI. The use of machine learning in a wide range of fields has grown significantly in recent years (Eliott, 2022). AI-based tools are increasingly being used by artists in the visual arts, media and technology to explore new forms of representation, explore the creative possibilities of technology and critically evaluate its wider implications. The effectiveness and efficiency of automated processes has been greatly enhanced by the human ability to learn (Hassani et al., 2020). The definition of artificial intelligence (AI) is a complex undertaking. In contemporary usage, artificial general intelligence refers to a machine's ability to communicate, reason, and function autonomously in both familiar and unfamiliar situations, much like a human (Du-Harpur et al., 2020). Nevertheless, this capability remains well beyond the capacities of contemporary technologies and deviates from the conventional interpretation of the term "AI". In contemporary discourse, the term "AI" is frequently used in a broad sense, often in a synonymous manner with terms such as "machine learning" or "deep learning".

Artificial intelligence can be categorised according to its level of development and function. The first level, reactive machines, includes simple AI that responds to stimuli based on pre-defined rules but has no memory, such as IBM's Deep Blue, which defeated Garry Kasparov at chess (Google, 2023a). Most current AI falls into the "limited memory" category, which can learn and improve over time by processing new data, often through neural networks. Future stages include "theory of mind" AI, which could potentially understand and interact based on human emotions and social cues, and "self-aware" AI – a hypothetical form of AI with self-awareness and human-like emotional and intellectual abilities.

AI programming focuses on key cognitive skills: learning, reasoning, self-correction, and creativity (Laskowski, Tucci, and Craig, 2022). Learning involves collecting data and creating algorithms to turn it into actionable insights, while reasoning selects the best algorithm to achieve specific goals. Self-correction allows algorithms to refine their accuracy, and creativity uses neural networks and statistical methods to generate new content such as images, text and music.

Artificial intelligence (AI) is about building machines that can think, learn, and perform tasks that typically require human intelligence, or analyse massive datasets beyond human capacity. It's a broad field that combines expertise from computer science, data analytics, engineering, linguistics, neuroscience, psychology, and philosophy (Google, 2023b). Generative AI has a range of applications, from creating unique images, text and music, to advancing

computer vision, natural language processing and speech recognition. For instance, it has the capacity to generate realistic graphics for video games, simulations and virtual reality, and even to design innovative chemical compounds for pharmaceutical research (Aydin and Karaarslan, 2023). In practical terms, especially in business, AI includes technologies such as machine learning and deep learning. These tools assist with tasks including data analysis, forecasting, object recognition, language processing and personalised recommendations.

At its core, AI relies on data. By analysing patterns within this data, AI systems can gain insights and make connections that humans might miss. Algorithms play a key role here, acting as rule-based guides for AI's learning and decision-making processes. Over time, AI systems adapt and improve, becoming better at tasks such as recognising images or translating languages.

AI in education

Recent advancements in the field of Artificial Intelligence (AI) have given rise to considerable optimism with regard to its future influence on education and learning (AIED) (Holmes and Tuomi, 2022a). The utilisation of AI-based modelling is imperative for the creation of automated, intelligent, and advanced systems that are capable of meeting the current demands (Sarker, 2022). The conviction that Artificial Intelligence (AI) possesses transformative potential is pervasive, with AI frequently being equated to foundational innovations such as oil or proclaimed as a watershed moment in human history (Holmes and Tuomi, 2022b). Substantial global investments in AI have given rise to calls for the establishment of regulatory frameworks to govern and promote its utilisation, particularly in the educational sector, where AI is regarded as a tool to enhance learning and cultivate AI literacy.

Artificial Intelligence in Education (AIED) has moved out of the computer science lab and into the mainstream, becoming a multi-billion dollar sector. Despite limitations, the potential for AI to make education cheaper and more accessible around the world raises hopes that AI will help overcome challenges in traditional education. With the rapid advancement of AI, it is crucial to explore how educators can effectively use AI tools to improve students' academic performance (Zhai et al., 2021). Over the past 25 years, artificial intelligence has brought incredible improvements to education, creating new opportunities and difficulties, especially in personalising learning and assisting teachers (Limna et al., 2022). AI applications such as adaptive learning, autonomous grading systems and teacher feedback have improved educational processes by tailoring learning to individual needs. However, the successful use of AI in education requires overcoming barriers such as teacher reluctance and the need for collaboration between educators, legislators and professionals to harness these opportunities and prepare students for the modern workforce.

As posited by Limna et al. (2022), the implementation of AI in educational settings offers a plethora of advantages, encompassing personalised learning systems, automated assessments, and social media integration. These advancements are designed to assist students and educators by providing specialised instruction and prompt feedback. The utilisation of these tools has been demonstrated to enhance learning efficiency, promote active learning methodologies, and foster effective communication between students and educators. Nevertheless, concerns regarding privacy and the necessity for robust data governance, in addition to the technical proficiency required to effectively utilise artificial intelligence and big data, constitute significant obstacles to their widespread adoption.

It has been posited by some that generative AI has the capacity to transform education and enhance the learning experience for students (Chan, 2023). For instance, certain experts propose that generative AI could offer personalised feedback and assistance to students.

Creativity and AI

AI technology, particularly the recent proliferation of ChapGPT since November 2022, has gained prominence not only among technology enthusiasts, but also among creativity researchers. New research questions have emerged, for example, focusing on the creative aspects of tasks performed by generative AI as opposed to human participants (Cropley, 2023; Koivisto & Grassini, 2023), or audience evaluations of AI and human-generated works (Chamberlain et al., 2018; Hong & Curran, 2019; Ragot et al., 2020), or ethics and humanistic aspects of AI in creativity (Lee, 2022). Runco (2023) introduced the concept of "parallel AI", defined as "the opposite of intelligence and creativity – artificial creativity – covering the outputs of machines generating content". This concept was further explored by Cropley et al. (2023), who investigated the property of artificial creativity in contrast with human creativity.

From one perspective, a group of creativity researchers have proposed four possible scenarios for the role of AI systems in relation to creativity (Vinchon et al., 2023): (1) co-creation with AI where a person is the creator and AI is just one of the tools (or a tool) used to boost creativity; (2) genuine creativity being characterised solely by humans as in the case of handmade products (Fuchs et al., 2015) or valuations of works of art (Locher et al., 2015; Newman & Bloom, 2012); (3) plagiarism cost; (4) a section of human beings losing self-motivation to be creative and their creative self-concept due to AI.

It is reasonable to hypothesise that each of these scenarios will engender its own lines of research. For instance, it would be a fascinating exercise to examine which individuals would be more likely to become discouraged and which would be inspired by the prospect of artificial systems to carry out creative tasks. In this context, it is noteworthy to consider the concept of the creative mortification effect (Beghetto, 2014), which posits that generative AI may exert an adverse influence on individuals with low levels of creative self-efficacy, strong attachment to creativity, and psychosocial constructs of emotional control, particularly anxiety and frustration, while engaging in the creation of novel ideas.

A plethora of studies have demonstrated that artificial intelligence has a considerable impact on student creativity and innovation, often manifesting both opportunities and challenges. Generative AI has been shown to be a valuable tool for the generation of ideas, with the potential to encourage divergent thinking by offering a multitude of starting points or alternatives for creative projects (Girotra et al., 2023). Brynjolfsson and Raymond (2023) posit that AI augments productivity by offering structured assistance in tasks such as brainstorming and content generation, thereby facilitating the swift refinement of ideas by students. This assistance has the potential to stimulate creativity in structured problem-solving and enhance the overall quality of students' work.

Nevertheless, Epstein and Hertzmann (2023) have expressed concerns that overreliance on AI-generated concepts may impede originality in certain instances. The potential of AI to inadvertently influence students' perspectives, thereby encouraging a more derivative approach and less innovative thinking as they become dependent on algorithm-suggested frameworks, is a salient concern. Research conducted by Noy and Zhang (2023) and Peng et al. (2023) further illuminates how the influence of AI in education frequently impacts student outcomes in accordance with the creativity task's inherent characteristics. For instance, in open-ended creative tasks, AI can serve as a source of inspiration but there is a risk that it may constrain unique self-expression if it is overused.

In summary, while AI has the capacity to significantly enhance the speed and breadth of creative ideation, research suggests that its impact is contingent on the manner in which students interact with it, thereby highlighting the necessity for a balanced approach to the integration of AI in educational settings.

3. Methodology

In order to achieve the research objectives, the authors developed a comprehensive questionnaire specifically designed for students enrolled in higher education institutions, including colleges, universities, and universities of applied sciences. The survey was distributed across three countries: Latvia, Ukraine, and Spain, with the objective of ensuring a diverse and representative sample of responses. This cross-national approach enhances the validity of the findings and facilitates comparative analysis of students' perspectives in different educational contexts.

The questionnaire was meticulously designed to capture pertinent data, encompassing various dimensions such as academic experiences, socio-economic backgrounds, and perceptions of educational quality. The detailed structure of the questionnaire is outlined in Table 1, which illustrates the different sections and types of questions included. The design of each section was informed by specific research questions, with the objective of facilitating a comprehensive analysis of the factors influencing student experiences in higher education across the participating countries.

In order to guarantee the reliability and validity of the instrument, the questionnaire was subjected to multiple cycles of revision, informed by feedback from experts in the field of educational research and pilot testing with a small group of students. This iterative process enabled the refinement of the questions and the enhancement of clarity, thereby ensuring the collection of data of an elevated quality.

Table 1 outlines the structure of the research questionnaire designed to collect comprehensive data from higher education students. It is divided into three main sections: the respondent profile, general questions about the use of AI in higher education, and attitudes towards AI and its impact on student creativity. Each section utilises a combination of open and closed questions, with responses categorised by specific codes for efficient analysis. The employment of evaluation scales enables respondents to articulate their perspectives on a series of statements, thus yielding significant insights into their perceptions and experiences. This structured approach guarantees that the research effectively captures a range of perspectives on the role of AI in higher education.

Questionnaire was placed on QuestionPro platform available on www.questionpro.com. The distribution of data occurred via electronic mail and during lectures with students. This took place over a period of one month, from September 10th to October 10th, 2024.

The study's sample comprised a total of 89 respondents, who were categorised by gender as follows: 33 participants identified as female, 55 as male, and 1 respondent selected the option labeled "other".

The majority of the participants were pursuing a bachelor's degree, with 64 individuals constituting the largest subset of the sample. This was followed by a group of 13 respondents enrolled in short-cycle higher education programs, which typically consist

Table 1
Structure of the questionnaire (Author's construction, 2024)

	Description		
Part of the survey	Question types	Evaluation scale	Codes
A: Respondent profile	Open/Closed	Multiple-choice	A_1-A_4
B: General questions (4 statements to rate in relation to usage of AI in Higher Education)	Closed	Multiple-choice/rating from 1 to 5	B_1-B_4
C: Attitudes towards AI and creativity of students (10 statements to rate aspects related to usage of AI by students and its influence on the creativity of students)	Closed	Multiple-choice/rating from 1 to 5	C_1-C_10

of shorter, specialised courses. Furthermore, nine respondents were pursuing a master's degree, while a smaller group of three respondents were engaged in doctoral studies.

In terms of field, students predominantly come from the field of Information Technology – 37 students, followed by 21 students from Management and Entrepreneurship, while similar numbers of students from Education, Economics, Engineering and Philology – 4,8,6 and 6 students respectively; only one student comes from Finance and only two students from Mathematics, while 4 students chose the option "other".

As illustrated in Table 2, the distribution of respondents is delineated by their respective study fields, their countries of origin, and the countries in which the studies were conducted.

Table 2
Distribution of respondents by research area, country of origin, and country of study.

Label	Respondents' number	% from the total share
Field of the study		
Information technology	37	42%
Management and entrepreneurship	21	24%
Education	4	4%
Economics	8	9%
Engineering	6	7%
Philology	6	7%
Finance	1	1%
Mathematics	2	2%
Other	4	4%
Country of study		
Latvia	18	20%
Ukraine	50	56%
Spain	21	24%
Country of origin		
Latvia	3	3%
Spain	22	25%
Ukraine	45	51%
India	17	19%
Other	2	2%

With regard to the fields of study, the majority of the sample – 37 individuals – are specialising in information technology (IT), thus constituting the most represented discipline. The second largest group, comprising 21 students, is focused on management and entrepreneurship.

The remaining students are distributed across a number of other fields, though in smaller numbers. The field of education is represented by four students, while the field of economics has eight students. The engineering field is represented by six students, while philology, the study of languages and literature, also has six students.

In addition, only one student is studying finance, which contrasts with the larger group focusing on broader economic issues. Similarly, Mathematics has 2 students, with 4 students selecting the "other" option, indicating that they are studying in areas outside those listed above.

The majority of respondents, constituting 50 students (56%), are currently engaged in academic pursuits in Ukraine, which is thus identified as the primary location of study within the present sample. Spain is the second most popular location, with 21 students (24%) engaged in academic programs there, while Latvia accounts for 18 students (20%).

The majority of respondents are originally from Ukraine, constituting 45 students (51%). In addition, 22 students (25%) hail from Spain, while 17 students (19%) are from India. The remaining three students (3%) hail from Latvia, and two students (2%) are from countries not specified in the sample.

4. Results

To achieve the research objectives, the authors developed the following hypothesis:

H1: Students from EU countries use AI in education process more often than students from Ukraine as non-EU country.

The Kruskal-Wallis test was conducted in order to assess whether there were any statistically significant differences in the frequency of AI usage among students from four different countries. The findings

indicated an absence of statistically significant differences in AI usage frequency for educational purposes across these countries, with an Asymp. Sig. value of 0.448.

Consequently, the hypothesis is rejected based on these results.

Furthermore, the authors analysed the data pertaining to the responses given by the participants in relation to AI and creativity. Participants were invited to respond to questions and assign a rating on the Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The results of this study are presented in Table 3. The findings are presented in Table 3 as percentages.

Table 3
Students' assessment of statements about the impact of artificial intelligence on creativity in education

Statement	Rankings of 4 and 5 % from the total share
I think that AI don't limit my creative expression	83%
I believe that AI enhances creative thinking in education	43%
AI has positively impacted my ability to develop creative solutions or ideas	69%
I feel positively about the role of AI in collaborative creative projects	47%
I'm very confident in my creative abilities when using AI tools	47%

A large majority (83%) of students agree or strongly agree that AI does not limit their creative expression. This suggests that most students feel that AI tools provide room for personal creativity without imposing significant restrictions. They are likely to see AI as a supportive tool rather than one that limits their creativity.

A mere 43% of students subscribe to the opinion that artificial intelligence has a beneficial effect on creative thinking within education. This figure is lower than the percentage obtained in other metrics and may be indicative of scepticism among students regarding AI's ability to promote creative thought. Alternatively, it is possible that students regard AI as being more functional than inspirational in the creative process.

A significant proportion (69%) of students have indicated that AI has had a positive impact on their ability to develop creative solutions or ideas. This finding suggests that a significant proportion of students consider AI tools to be beneficial in the domains of brainstorming, problem-solving, and the generation of innovative ideas, which are pivotal components of creative work.

A survey of students reveals that just under half (47%) of respondents have a positive attitude towards the use of AI in collaborative creative projects. This distribution may be indicative of a range of opinions, with some students expressing appreciation for the potential of AI in fostering collaboration, while others may harbour reservations, potentially due to concerns regarding the utilisation of AI in teamwork or reservations about the compatibility of AI with human collaboration.

In a similar vein, 47% of students reported feelings of confidence in their creative abilities when using AI tools. This response indicates that while some students perceive an enhancement of their creativity in conjunction with AI, others may still be in the process of developing trust in their own abilities in the context of AI.

It is evident that students are generally receptive to the integration of AI into their creative processes, particularly in ways that do not impede their expression or restrict the generation of ideas. While a majority find AI beneficial for creating solutions, opinions are more divided on its role in collaborative settings and in building confidence in creative skills. These findings suggest that while AI is generally viewed positively in educational settings, there is potential to enhance its perceived value in fostering creative thinking and confidence in collaborative environments.

Conclusions

The impact of artificial intelligence (AI) on student creativity and innovation is a multifaceted phenomenon, with both positive and negative implications. On the one hand, AI has the capacity to enhance creativity by offering personalised learning experiences, fostering new ways of problem-solving, and facilitating access to information and tools that spark innovation (Gartner, 2020). For instance, adaptive learning systems and AI-assisted design tools, which are two examples of AI-driven platforms, offer students the opportunity to explore ideas and solutions that transcend traditional boundaries (Gobet & Chabris, 2021).

However, there are concerns that an over-reliance on AI could lead to a decline in independent critical thinking. Some researchers argue that while AI can help automate repetitive tasks, it may inadvertently reduce students' ability to develop original ideas, as they may rely too heavily on machine-generated solutions (Binns, 2021). This concern is particularly relevant in subjects that require creative thinking, where overuse of AI could stifle the creative process by providing solutions that students may not question or explore further.

Furthermore, the integration of AI into educational practices has the potential to act as both a tool for creative expansion and a limitation. When employed as a support system, AI has the capacity to inspire

students to push the boundaries of their imagination, offering prompts, feedback, and real-time assistance. However, if not carefully managed, it might inadvertently promote a more rigid, standardised approach to learning, which could hinder the free flow of ideas (Kelley & Littman, 2018).

The role of educators is pivotal in ensuring that AI enhances rather than inhibits creativity. It is imperative for educators to strike a balance between leveraging AI for its technological benefits and preserving the human aspects of creative learning. The development of AI literacy among students is also crucial to ensure they understand the limitations and possibilities of AI tools, using them in ways that complement, rather than replace, their creative abilities (Johnson et al., 2022).

The Kruskal-Wallis test was run to see if there were any statistically significant differences in the frequency of AI use between students from four different countries. The results indicated no significant difference in the frequency of AI use for educational purposes between these countries, with an Asymp. Sig. value of 0.448. Therefore, based on these results, the hypothesis is rejected.

It appears that students are amenable to the integration of AI into their creative processes, particularly in ways that do not restrict their expression or limit the generation of ideas. While a majority find AI beneficial for the creation of solutions, opinions are more divided on its role in collaborative settings and in building confidence in creative skills. These insights suggest that while AI is generally viewed positively in education, there is potential for enhancing its perceived value in fostering creative thinking and confidence in collaborative settings.

In conclusion, AI presents both challenges and opportunities for student creativity and innovation. While it has the potential to revolutionise the way students learn and create, it is important for educators and institutions to ensure that AI is used as a tool that enhances, rather than limits, students' creative potential. Careful integration of AI into education systems can pave the way for a generation of learners who are both innovative and equipped to harness the power of AI.

Discussion

Discussion: How Artificial Intelligence Impacts Student Creativity and Innovation

This study investigates the impact of generative AI on students' creativity and innovation in higher education. A cross-national sample from Latvia, Ukraine and Spain was used to design a robust questionnaire to measure AI's perceived role in enhancing creativity among students. The survey was refined with expert feedback to improve its clarity and validity. This cross-cultural design provides a comprehensive perspective, capturing diverse attitudes towards AI's potential to augment creative thinking, especially in technologically advanced fields such as information technology (42%) and management (24%).

The findings indicate that the majority of students – 83% – do not perceive AI as a restriction on their creative expression, suggesting that they regard it as an enhancer of creativity. However, only 43% of students felt that AI actively enhances creative thinking in educational settings, suggesting some reservations about AI's potential to inspire creative processes. These findings support existing research suggesting AI's role in "professionalising" output by structuring and refining ideas (Baldwin et al., 2023). The analysis demonstrated that students, particularly those with limited experience in creative endeavours, perceived a significant benefit from AI, as evidenced by an increase in confidence in utilising AI tools to generate novel concepts (47%) and to develop creative solutions (69%).

The divergent responses to the integration of AI into collaborative tasks and creative confidence (47% in each category) demonstrate the complexity of attitudes towards the incorporation of AI in group work. This hesitation could be linked to concerns about AI overshadowing human agency in joint creativity, aligning with findings by Jarrahi et al. (2020) that highlight AI's dual role in both enhancing and potentially restricting collaborative innovation. The Kruskal-Wallis test further demonstrated that AI usage frequency did not differ significantly across countries, suggesting that attitudes toward AI might be more influenced by individual factors or field of study rather than national context.

A critical insight from the study pertains to the notion of ownership perception; respondents placed a premium on transparency in AI usage and suggested the provision of compensation for AI-generated ideas. This finding is in alignment with Zuboff's (2019) observations on AI ethics, which emphasise the significance of credit and ethical responsibility in AI-assisted creative endeavours.

It is suggested that subsequent studies should analyse self-selection in AI usage in order to explore whether students with lower creative self-assessment might disproportionately benefit from AI, as has been suggested in work productivity studies (Frey & Osborne, 2017).

In summary, while AI has shown promising potential to equalise the quality of creative output across students, wider adoption of AI for creativity may present nuanced challenges, particularly around collective originality and ethical standards. The findings of this study provide a basis for further exploring these implications as AI capabilities continue to evolve, with the promise of enriching the landscape of human creativity and innovation in higher education and beyond.

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