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The Use of Artificial Intelligence in Academic and Personal Life of Pedagogy Students

Abstract

This study presents a comparative analysis focused on the use of artificial intelligence (AI) among students of Pedagogy in the Czech Republic and Poland. The aim of the research is to compare how Czech and Polish students use AI in both their academic and personal lives.The research was conducted using a quantitative method through a structured questionnaire (25 closed-ended questions) distributed across five universities in both countries (a total of 275 pedagogy students participated in the research, 130 from Poland and 142 from the Czech Republic) during May and June 2025. Data analysis was carried out using the chi-square test of independence.

The research findings show that AI has already become a common part of academic life for pedagogy students in both countries. The majority of respondents reported using AI regularly, with Polish students showing a slightly higher frequency of use than Czech students. Students most commonly use AI for information retrieval, creating presentations, writing academic papers, translation, grammar checking, and understanding complex subject matter. Students perceive AI as beneficial for their future professional practice, and most express an interest in further education in this area. At the same time, they are aware of the risks associated with AI use-particularly ethical and informational risks – and in most cases, they verify AI-generated outputs through other sources.

The research also revealed differences between students in the two countries-for example, in the frequency of AI use in practical teaching, in the level of

perceived awareness, or in attitudes related to AI use (such as feelings of guilt). The conclusions of the study underscore the need for the systematic integration of AI into education, including training on its risks, and the support for developing students' digital competencies in an international context.

K e y w o r d s: Artificial Intelligence, Higher Education, Students of Pedagogy, Comparative Study, Digital Competence, AI in Education, Student Attitudes, Ethical Use of AI

Introduction

The dynamic development of modern technologies is fundamentally transforming contemporary educational systems. One of the most significant innovations is the application of artificial intelligence in teaching (Belgith et al., 2024). The field of artificial intelligence is developing continously and rapidly (Przybyła-Kasperek, Smyrnova & Kommers, 2023¸ Oprea, 2021; Mhlanga, 2022; Yu & Nazir, 2021). A major shift has occurred particularly with the emergence of tools such as ChatGPT, which provide substantial support in the educational process (Firdaus et al., 2023). In recent years, artificial intelligence (AI) technologies have been gradually entering the field of education, bringing with them new challenges as well as opportunities (Ziatdinov et. al., 2022; Pikkarainen & Tihinen, 2023; Ramírez, 2021). The advancement of AI technologies in the digital era holds the potential to significantly transform and redefine traditional teaching and learning methods, approaches, and tools. In school education, the opportunities offered by these technologies are increasingly being leveraged in areas such as assessing and analyzing learning outcomes, personalizing educational content and learning processes, providing instant feedback, and enhancing student engagement and motivation (Glushkova & Malinova, 2024; Glushkova, Gurba, Hug, Morze, Noskova & Smyrnova-Trybulska, 2022).

1. The Emergence of Artificial Intelligence Use in Schools in the Czech Republic

Czech teachers are beginning to adapt to these changes and are seeking ways to work effectively with Artificial Intelligence. Research conducted by the Faculty of Education at Palacký University in Olomouc (Kopecký et al., 2023) showed that 27.7% of Czech teachers use chatbots when preparing for lessons, and 15.82%

use them directly during instruction. The same study revealed that most Czech teachers view artificial intelligence as a tool that has its place in the educational process. Specifically, 45.5% of Czech teachers have a positive attitude toward the use of AI in education. This opinion likely relates to the fact that as many as 81.7% of teachers recognize the need to acquire the skills necessary to work with these technologies. Although a large percentage of educators hold a positive view of using AI in education, the same research also found that there is a significant level of concern among teachers regarding the use of this technology in the educational field. Approximately 47.6% of teachers believe that chat tools are being misused by students for cheating, and 34% of respondents have already encountered specific cases where students used ChatGPT to generate essays or other homework assignments in order to avoid doing the work themselves.

The introduction of AI into schools is also being addressed by the Ministry of Education, Youth and Sports of the Czech Republic (MŠMT), which has prepared a support plan for the use of Artificial Intelligence in education, as well as by the National Pedagogical Institute of the Czech Republic (NPI ČR), which offers teachers online webinars and in-person seminars focused on the use of AI tools and related ethical issues (NPI ČR, online). The topic of AI in education is also addressed by international institutions. In 2022, the European Commission published the document *Ethical Guidelines for the Use of Artificial Intelligence within the European Union*, created as part of the *Digital Education Action Plan (2021–2027)*. This document provides a set of thought-provoking questions that educators should consider when integrating AI into teaching, encouraging reflection and a responsible approach (European Commission, 2022). At the national policy level, AI is also addressed in the *National Artificial Intelligence Strategy of the Czech Republic*, published by the Ministry of Industry and Trade in 2019. This strategic document not only addresses the impact of AI on the labor market but also explores the legal, ethical, and social aspects of its use in the public sphere, including education.

Artificial intelligence is transforming the Czech educational system. At universities, AI has become a standard part of academic practice. Both students and instructors use AI tools for data processing, translation, syllabus creation, proofreading, programming, and analysis of scholarly articles (MUNI, online). In certain fields-such as computer science, education, psychology, or the humanities-AI is not only a tool but also a subject of teaching and research. Increasing emphasis is being placed on academic integrity. Some universities (e.g., Faculty of Arts at Charles University, Masaryk University, Palacký University) have already amended their internal regulations to clearly define when and how AI may be used and how to distinguish legitimate use from plagiarism (FF UK, online; UPOL, online). In addition, training for academic staff in this area is expanding, and recommendations for the responsible use of these technologies are being developed. AI is thus becoming a standard tool of scientific and academic work.

2. The Emergence of Artificial Intelligence Use in Schools in Poland

In Poland, the topic of artificial intelligence (AI) is becoming increasingly important and is gaining attention from educators, experts, and the general public (Przybyła-Kasperek, Smyrnova & Kommers, 2023). Teachers perceive its potential as a key driving force that may significantly transform not only the educational system itself in the near future, but also the way future teachers and other education-related professionals are trained. AI is seen as a tool that can support the individualization of teaching, streamline administrative tasks, and help better respond to students' needs.

At the same time, Polish teachers are well aware that the use of AI also entails certain risks, especially in the areas of personal data protection, cybersecurity, and the ethical use of digital technologies (PARP, online). Therefore, the Polish education system emphasizes adherence to the procedures outlined in the document titled *Ethical Guidelines for the Use of Artificial Intelligence within the Europe Union*, issued by the European Commission in 2022. These guidelines stress the importance of transparency, accountability, and the protection of the rights of all users, including teachers and students (European Commission, 2022).

In October 2023, a comprehensive research study was published focusing on the use of artificial intelligence tools in Polish education, with particular emphasis on the ChatGPT platform. The results showed that 51% of teachers and 40% of students use this tool at least once a week. Interestingly, teachers were found to be more frequent users of AI than their students, which may reflect their effort to understand the technology they aim to integrate effectively into the classroom. Support for the use of AI also comes directly from the school environment – 38% of teachers actively encourage their students to use AI tools, such as chatbots, in a meaningful and efficient way. The majority of respondents, both teachers (72%) and students (63%), agree that the rise of chatbots and other AI tools brings inevitable changes to the traditional concept of teaching. This change is generally perceived positively – as an opportunity to streamline the teaching process, increase student engagement, and adapt learning to individual needs (PARP, online).

Polish teachers recognize that the emergence of Artificial Intelligence is reshaping the role of the teacher. In their view, the teacher will become more of a mentor or guide – not someone who simply delivers information, but someone who teaches students how to search for information, analyze it, think critically, and work creatively and independently (Vavříková & Zormanová, 2025).

In 2024, a study was published that explored the use of AI among high school students. The study focused on how secondary school students use ChatGPT and other Artificial Intelligence tools in education. The research was conducted among

75 students aged 15–19 who study exclusively using tablets and iPads. The aim of the research was to determine whether there is a connection between the use of these technologies and factors such as gender, personality traits, and career interests. Approximately half of the students reported having used ChatGPT or other AI tools. Although there were no significant differences in usage between genders, boys more frequently reported higher levels of knowledge and interest in AI compared to girls. Most students rated their knowledge of AI as average, while one-third considered their knowledge to be high or very high. According to the students, ChatGPT is particularly useful for information retrieval, translation, and solving math problems. It is perceived as less useful in areas of creative production, such as writing poetry (Skop & Frania, 2024).

The majority of respondents believe that AI will become a standard part of education – similar to computers – and support the idea that these tools should be actively used in schools rather than banned (Skop & Frania, 2024). The research did not find any significant correlation between personality traits (e.g., openness, extraversion) and the level of AI use or attitudes toward AI. On the other hand, career interests did influence both AI usage and attitudes. Students interested in organization and management showed a greater interest in AI, while those with practical-aesthetic interests were more likely to feel that tools like ChatGPT limit creativity. The study highlighted the need to introduce media education focused on working with AI, specifically aimed at practical training in prompt formulation („prompt literacy“) and the ethical use of these technologies. It emphasizes that the use of AI in education is not a matter of the future, but of the presentand the education system must respond to this reality proactively(Skop & Frania, 2024).

3. Research Methodology

The aim of the research is to compare how Czech and Polish pedagogy students use artificial intelligence in both their academic and personal lives. The contrast between Polish and Czech students was deliberately chosen because both countries share certain historical, cultural, and educational similarities, yet their higher education systems and approaches to digital literacy and AI integration differ. Comparing these two groups allows for identifying both common trends and country-specific differences in AI use among pedagogy students, providing a more nuanced understanding of students' behaviors, attitudes, and awareness of ethical issues. The selection of these populations thus offers a relevant context for exploring how AI is adopted and perceived in similar but distinct educational environments.

The main research question, based on the stated research objective, was formulated as follows:

MRQ: „For what purposes and to what extent do Czech and Polish pedagogy students use Artificial Intelligence in their academic and personal lives?“

MH: There are statistically significant differences between Czech and Polish pedagogy students in the purposes and extent of Artificial Intelligence use in their academic and personal lives.

This research question covers both the comparative dimension (comparison between the Czech Republic and Poland) as well as both contexts of AI use (academic and personal). The main research question was further divided into several sub-research questions, each corresponding to a specific hypothesis.

RQ1: To what extent do Czech and Polish pedagogy students use artificial intelligence (AI) in their academic studies, and are there significant differences between them in terms of usage frequency and purpose?

H1: There are statistically significant differences between Czech and Polish pedagogy students in their use of AI in academic studies in terms of frequency and purpose.

The hypothesis is supported by existing research showing that students adopt AI differently based on their perceptions of its usefulness and complexity. Research indicates that in teacher education programs, perceptions of the usefulness and ease of use of AI influence its adoption and practical application, even within an academic context.

Relevant questionnaire items:

- Q1: Do you use AI in your studies?
- Q2: How often do you use AI?
- Q3: For which academic tasks do you use AI most frequently? *(note: creating presentations showed significant difference)*
- Q5: Do you use AI when writing final or seminar papers?
- Q6: Do you use AI to prepare for tests or exams?
- Q7: Do you use AI in practical classes (e.g., simulations, clinical information search, preparation of teaching activities)?

Bećirović et al. (2025), in their multidimensional study of AI adoption among pedagogy students, found that perceptions of usefulness and ease of use positively affect the practical application of AI in academic studies – this explains why the frequency and purposes of AI use may vary across groups with differing perceptions.

RQ2: Do Czech and Polish pedagogy students use AI outside academic obligations, and is there a significant difference in this behavior between the two groups?

H2: There is a statistically significant difference between Czech and Polish pedagogy students in the use of AI for non-academic, personal purposes.

The hypothesis is supported by research showing that students use AI not only for academic purposes but also for personal and everyday tasks, with their motivations and the relevant context influencing the extent of this adoption.

Relevant questionnaire items:

- Q18: Do you use AI outside of your studies?
  Mazaheriyan & Nourbakhsh (2025) note that students primarily use AI tools to improve work quality and efficiency, but without clear guidance, "shadow pedagogy" can emerge, potentially leading to differences in personal usage and motivations.

RQ3: How do Czech and Polish pedagogy students perceive the usefulness of AI for their future professional careers, and do these perceptions differ significantly?

H3: There is a statistically significant difference between Czech and Polish pedagogy students in their perceptions of AI's usefulness for their future professional practice.

Relevant questionnaire items:

- Q8: Do you think using AI can be beneficial for your professional practice?
- Q12: Do you think AI can help you in your future professional work?
- Q17: Do you think AI could threaten jobs in your field in the future?
  The hypothesis that Czech and Polish pedagogy students may differ in how they perceive the usefulness of AI for their future professional careers is grounded in research showing that many students regard AI as an important factor in their future employability and professional development. Studies indicate that students generally recognize AI's potential to enhance learning efficiency and support career readiness, but at the same time express concerns about ethical issues and the need for targeted education on AI competencies. For example, Thomson et al. (2024) found that a majority of students feel that understanding AI tools and their ethical implications will be important in their future careers, with many reporting that they are likely to use AI in their degree programs and believing that AI skills will be valuable in the workforce. This suggests that students' perceptions of AI's usefulness for their future professional practice are well-established in the literature and can vary depending on educational context and individual attitudes toward AI.

RQ4: How do Czech and Polish pedagogy students assess their awareness of AI applications and risks in their field of study, and are there significant differences in this self-assessment?

H4: There are statistically significant differences between Czech and Polish pedagogy students in their self-assessed awareness of AI applications and associated risks.

Relevant questionnaire items:

- Q9: Do you feel sufficiently informed about AI possibilities in your field?
- Q13: Are you aware of risks associated with AI (inaccurate info, plagiarism, ethical issues)?

  There are studies that specifically examine the perception of risks and ethical aspects of AI. Research on the perception of risks associated with emerging AI technologies highlights that these topics are important in the scholarly discussion, and that students reflect on their perception of them, which supports the formulation of H4. Machleidt et al. (2023) in their work on the perception of AI-related risks show that exposure to risk aspects of AI influences both students and the general public and emphasizes the need for ethical and risk-oriented education.

RQ5: Are Czech and Polish pedagogy students interested in AI-related training or education, and do they differ in their desire to further develop AI-related and digital competencies?

H5: There is a statistically significant difference between Czech and Polish pedagogy students in their interest in AI-related training and further development of AI and digital skills.

Relevant questionnaire items:

- Q11: Would you like the school to offer training/courses on AI use in your field?
- Q19: Are you interested in further developing your AI and digital skills?
- Q10: Do teachers at your institution mention AI or actively involve it in teaching?

  Multidimensional research on AI use suggests that students benefit from training programs that emphasize both the practical application and ethical use of AI tools, which may account for differences in their interest in pursuing further AI-related education. Bećirović et al. (2025) point out that the ethical and practical aspects of AI positively influence its use, and that targeted training and support enhance effective AI utilization, which supports the hypothesis of interest in training.

RQ6: How do Czech and Polish pedagogy students perceive the ethical implications of using AI in their studies, particularly in relation to feelings of guilt and perceptions of cheating?

H6: There is a statistically significant difference between Czech and Polish pedagogy students in their ethical perceptions of AI use in academic contexts, particularly regarding feelings of guilt and whether AI use is seen as cheating.

Relevant questionnaire items:

- Q15: Do you consider using AI in your studies as a form of cheating?
- Q21: Do you sometimes feel guilty for using AI?
- Q16: Have you encountered a negative attitude from teachers toward using AI? *ethical context)*

The hypothesis that Czech and Polish pedagogy students differ in their ethical perceptions of AI use is supported by research on academic integrity in the context of emerging technologies. Study (Eaton, 2023) shows that students' feelings of guilt and perceptions of cheating depend on institutional norms, cultural context, and the clarity of rules regarding AI use. Where guidance is ambiguous, students rely on personal moral judgment, which can result in cross-national differences in ethical attitudes toward AI-assisted learning.

RQ7: How frequently do Czech and Polish pedagogy students verify the information obtained through AI, and are there significant differences between them in this regard?

H7: There is a statistically significant difference between Czech and Polish pedagogy students in the frequency with which they verify AI-generated information.

Relevant questionnaire items:

- Q14: Do you verify information obtained via AI using other sources?
  The hypothesis that students differ in how frequently they verify AI-generated information is supported by research on digital literacy and algorithmic trust. Study (Büchi, Festic, & Latzer, 2019) indicates that while many students are aware of AI inaccuracies, verification behavior varies depending on critical thinking skills and prior instruction. Differences in educational emphasis on source evaluation may therefore lead to variation in verification practices across student groups.

RQ8: Do Czech and Polish pedagogy students perceive AI as helpful in understanding specialized academic subjects, and are there significant differences in these perceptions?

H8: There is a statistically significant difference between Czech and Polish pedagogy students in their perception of AI's helpfulness in understanding specialized academic topics.

Relevant questionnaire items:

- Q4: Has AI ever helped you understand a specialized topic?
  The hypothesis that students differ in their perception of AI's usefulness for understanding specialized subjects is supported by research on technology-enhanced learning. Study shows (Zawacki-Richter, Marín, Bond, & Gouverneur, 2019) that AI can support comprehension of complex topics, but perceived usefulness depends on prior experience, learning preferences, and instructional context, which may vary across educational systems.

RQ9: Are Czech and Polish pedagogy students aware of the potential risks of AI dependency, and do their behaviors and perceptions regarding excessive or purposeless AI use differ significantly?

H9: There is a statistically significant difference between Czech and Polish pedagogy students in their awareness and perception of the risks associated with AI overuse or dependency.

Relevant questionnaire items:

- Q22: Do you feel that you spend a lot of time using AI?
- Q23: Do you use AI even when it is not necessary (habit, boredom, nervousness)?
- Q24: Should schools talk more about risks of AI dependency?
- Q20: What is your general attitude toward using AI in education?
  The hypothesis that students differ in their awareness of AI dependency risks is grounded in research on digital habits and self-regulation. Study indicates (Büchi, Just, & Latzer, 2016) that many students use AI intensively without reflecting on potential overreliance, while others are more aware of risks such as reduced autonomy or habitual use. Such awareness is influenced by educational discourse and cultural context.

The research objective was fulfilled through quantitative research in the form of a questionnaire survey, which was conducted during May and June 2025 at selected universities in the Czech Republic and Poland. The following Polish universities participated in the study: AHE in Łódź and the University of Silesia in Katowice. The Czech universities involved were Prigo College Ostrava (VOŠ Prigo) and the College of Entrepreneurship and Law in Frýdek-Místek, and Silesia University in Opava. The questionnaire did not include questions regarding the students' gender, age, type of previous secondary education, or current year of study, because the research sample consisted predominantly of women (there are very few men in teacher training programs) and students from all years of study, making age and year of study non-essential for the purposes of this study. The research focused on capturing general patterns of AI usage among teacher training students, rather than analyzing differences based on gender, age, or previous education. A total of 275 pedagogy students participated in the research, 130 from Poland and 145 from the Czech Republic. The Polish universities represented were AHE in Łódź (60 students) and the University of Silesia in Katowice (70 students). The Czech institutions included Prigo College Ostrava (39 students), the College of Entrepreneurship and Law in Frýdek-Místek (70 students), and Silesia University in Opava (36 students). The research focused on capturing general patterns of AI usage among teacher training students, rather than analyzing differences based on gender, age, or previous education.

For the purpose of the research, an original questionnaire titled *"Use of Artificial Intelligence among University Students"* was created. The questionnaire was distributed in two language versions – Czech and Polish – with the aim of investigating how pedagogy students use artificial intelligence (AI) in both academic and personal life. The survey research was conducted using the online platform Survio.cz. To ensure linguistic accessibility for respondents, two language versions of the questionnaire were prepared:

- Polish version of the questionnaire:
  https://www.survio.com/survey/d/K9P9Z4I2T1K1Y1R3M
- Czech version of the questionnaire:
  https://www.survio.com/survey/d/R8X4P8M6K7C6Y6I7C

The anonymous survey allowed for a comparison of attitudes, habits, and the extent of AI usage between Czech and Polish pedagogy students .

The questionnaire consisted of 25 closed-ended questions and was created in two language versions – Czech and Polish. Both versions were identical in content and structure, which allowed for direct comparison of responses between the two groups of respondents.

The questionnaire consisted of 25 closed-ended questions focusing on the following areas:

- use of AI in studying (e.g., writing seminar and thesis papers, searching for scientific information, preparing for exams),
- use of AI in practical classes and simulations,
- subjective evaluation of AI's benefits for future professional employment,
- level of awareness regarding AI's possibilities and risks,
- ethical aspects of AI usage (including feelings of guilt or perceptions of AI as cheating),
- use of AI beyond the academic context (e.g., for planning, creativity, or communication),
- interest in further education in AI and digital skills.

Respondents answered questions by selecting from predefined options. All respondents completed the questionnaire in full, so no responses had to be excluded. The questionnaire's structure enabled quantitative evaluation and comparison of answers between both respondent groups.

A total of 275 pedagogy students participated in the research, 130 from Poland and 145 from the Czech Republic. All were students in teacher training programs. To test the research hypotheses and assess differences in responses, the chi-square test of independence (χ^2 test) was employed. This non-parametric statistical method was chosen due to the categorical nature of the data collected through the closed-ended questions. The chi-square test made it possible to determine whether observed differences in frequencies between the two national groups – Czech and Polish students were statistically significant or occurred by chance. The comparisons focused on variables such as the frequency, purpose, and context of AI use (academic vs. personal), attitudes toward AI, perceptions of ethical implications, and interest in further AI-related education. Through these analyses, the study was able to identify both similarities and statistically significant differences between the two populations in relation to their engagement with artificial intelligence. The chi-square test is then consistently applied across all research questions and hypotheses (RQ1–RQ9, H1–H9) to assess whether the differences in categorical data (survey responses) between Czech and Polish students are statistically significant.

4. Results of the Research Survey

In response to the question of whether pedagogy students use artificial intelligence (e.g., ChatGPT, Grammarly, mobile AI, image/test generators, voice assistants, Google Translator, diagnostic tools, DALL·E, Perplexity, etc.) in their studies, 95.41% of students from the Czech Republic and 96.92% of students from Poland answered affirmatively. The remaining 4.59% of Czech and 3.28% of Polish students stated that they do not use AI in their studies.

The survey then focused on students who do use AI in their studies, asking them how frequently they use it. The majority of respondents reported using AI regularly. Daily use was reported by 13.77% of Czech students and 16.92% of Polish students. The largest group consisted of those who reported using AI several times a week-specifically, 39.86% of students from the Czech Republic and 46.15% from Poland. The option "once a week" was selected by 19.57% of Czech and 13.85% of Polish respondents. Another 25.36% of students from the Czech Republic and 21.54% from Poland reported using AI rarely.

Table 1
The Extent of Artificial Intelligence Use Among Students of Pedagogy in Poland and the Czech Republic

Frequency of AI Use	Czech Republic (%)	Poland (%)
Use AI in studies (total)	95.41	96.92
Daily	13.77	16.92
Several times a week	39.86	46.15
Once a week	19.57	13.85
Rarely	25.36	21.54

S o u r c e: Own work.

The results indicate that Artificial Intelligence is becoming a common part of the academic life of most students, with Polish students showing a slightly higher frequency of use than their Czech counterparts. At the same time, it is clear that daily use of AI is not very common. These findings highlight the need to reflect this reality in educational practice and to guide students toward critical, effective, and ethical use of AI technologies in education.

When asked about the most common purposes for which pedagogy students use artificial intelligence, the respondents were able to select multiple options. The most frequent use of AI is for searching professional information, cited by 63.59% of Czech students and 58.46% of Polish students. A significant portion of students also use AI for writing seminar papers, with 28,28% of Czech and 21.54% of Polish respondents selecting this option. Regarding presentation creation, a notably higher share of Polish students (44.62%) use AI for this purpose compared to

Czech students (28,28%). Approximately the same proportion of students from both countries use AI for translating professional texts – 24.83% of Czech and 23.08% of Polish respondents. AI is used for grammar and stylistic checks by 28,97% of Czech and 33.85% of Polish students. The majority of students – 66.97% of Czech and 67.69% of Polish respondents – report using AI to generate ideas for practical application. A significant number of students also use AI to explain complex technical concepts: 44.54% of Czech and 49.23% of Polish students.

These results demonstrate that students use AI tools broadly and diversely, primarily to support understanding and the creation of study materials. Marked differences between Czech and Polish students are especially evident in the area of presentation creation, where Polish students utilize AI more frequently. This may reflect differing study strategies, pedagogical approaches, or the extent of AI integration in teaching within each country. Overall, AI serves students not only as a tool for information retrieval and text correction but, most importantly, as an aid in the practical application of knowledge and comprehension of complex topics, thereby supporting their educational process and professional preparation.

When asked whether Artificial Intelligence has ever helped them understand a specialized topic, 75.86% of Czech students and 75.38% of Polish students answered affirmatively. The opposite opinion – that AI did not help them – was expressed by 7.59% of Czech and 12.31% of Polish students. Another 16.55% of Czech and 12.31% of Polish respondents were unsure whether AI had been beneficial in this regard. These results suggest that the majority of students in both countries perceive artificial intelligence as a useful tool for better understanding complex specialized subjects.

When asked whether pedagogy students use Artificial Intelligence to prepare for tests, exams, or final state exams, 64.14% of Czech students and 70.77% of Polish students answered affirmatively. The opposite view – that they do not use AI for preparing for these exam activities – was expressed by 35.86% of Czech and 29.23% of Polish respondents. The results show that the majority of students in both countries perceive Artificial Intelligence as a useful aid in preparing for important academic exams.

When asked whether pedagogy students use Artificial Intelligence in practical teaching, for example in preparing teaching activities, 73,79% of Czech students and 76.92% of Polish students answered affirmatively. Conversely, 26.21% of Czech and 23.08% of Polish respondents stated that they do not use AI in practical teaching. The results suggest that artificial intelligence is an important part of practical teaching, especially among Polish students, who use it to a greater extent than their Czech peers.

Table 2
The use of artificial intelligence among Czech and Polish students of Pedagogy

	Czech students (%)	Polish students (%)
Information searching	63.59	58.46
Writing seminar papers	28.28	21.54
Creating presentations	28.28	44.62
Translating specialized texts	24.83	23.08
Grammar and stylistic checking	33.03	33.85
Generating practical ideas	66.97	67.69
Explaining specialized concepts	50.34	49.23
Preparing for tests/final exams	64.14	70.77
Ideas for practical teaching	73.79	76.92

S o u r c e: own work.

When asked whether students consider the use of Artificial Intelligence beneficial for their professional practice, 46.90% of Czech students and 36.92% of Polish students answered that AI is definitely beneficial for them. Another 40.69% of Czech and 49.23% of Polish respondents indicated that they think AI is rather beneficial. Meanwhile, 4.14% of Czech and 4.62% of Polish respondents stated that AI is not beneficial for their professional practice. Additionally, 4.14% of Czech and 3.08% of Polish students answered that they are unsure whether AI is beneficial for their practice.The results show that the majority of students from both countries perceive Artificial Intelligence as beneficial for their future professional practice, with a higher proportion of Czech students being fully confident in this regard. On the other hand, Polish students more often adopt a slightly more cautious attitude. A smaller group of students express doubts or negative opinions, which may be related to uncertainty about the real impact of AI on their professional opportunities or concerns about potential risks and limitations.

When asked whether pedagogy students feel sufficiently informed about the possibilities of using artificial intelligence in their field, 15.86% of Czech and 15.83% of Polish students answered positively, i.e., “yes.” Another 38.62% of Czech and 38.46% of Polish respondents said they rather feel informed. On the other hand, 40.69% of Czech and 29.23% of Polish students reported that they rather do not feel sufficiently informed, while 4.83% of Czech and 16.92% of Polish respondents said they do not feel informed at all.These results suggest that a significant portion of students in both countries feel they lack sufficient information about the use of AI in their field. While most Polish students tend to feel somewhat informed, a larger share of Czech students report feeling a lack of information. This may indicate a need for increased education and awareness about the possibilities and applications of AI within the respective study programs.

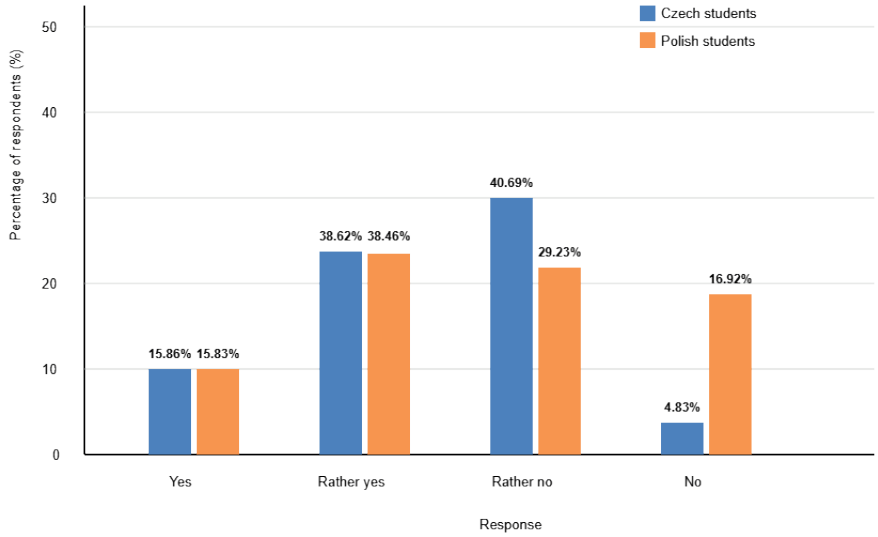

Figure 1. Studenst's Perceived Level of Information about AI Use in Pedagogy

S o u r c e: Own work.

When asked whether they would like their school to offer training or a course focused on the use of Artificial Intelligence in their field, 83.45% of Czech and 73.85% of Polish students answered affirmatively. The opposite opinion – that they would not need such training – was expressed by 7.59% of Czech and 13.85% of Polish respondents. The remaining students, specifically 8.97% of Czech and 12.31% of Polish students, were undecided and selected "I don't know." The results show that a significant majority of students from both countries are interested in further education and skill development in the area of Artificial Intelligence, confirming the need to introduce specialized courses or training programs within universities.

When asked whether pedagogy students believe that Artificial Intelligence can help them in their future professional work, 75.17% of Czech and 78.46% of Polish students answered affirmatively. The opposite opinion-that AI will not help them-was expressed by 7.59% of Czech and 7.69% of Polish respondents. The remaining 17.54% of Czech and 13.85% of Polish students were unsure and selected "I don't know." The results show that the vast majority of students in both countries perceive Artificial Intelligence as a significant support for their future professional careers.

When asked whether pedagogy students are aware of the risks associated with using Artificial Intelligence, such as inaccurate information, plagiarism, or ethical issues, 55.97% of Czech and 75.38% of Polish students answered that they are well aware of these risks. Partial awareness of these risks was reported by 35.77% of Czech and 21.54% of Polish respondents. On the other hand, 8.26% of Czech and 1.54% of Polish students said they rather do not know these risks, and a complete

lack of knowledge about the risks was reported by 0% of Czech and 1.54% of Polish students. The results show that the majority of students in both countries are aware of the possible risks associated with using AI, with Polish students demonstrating a higher level of awareness of these issues than Czech students.

When asked whether pedagogy students verify information obtained through Artificial Intelligence from other sources, 36.55% of Czech and 46.15% of Polish students answered that they always do so. The response "often" was chosen by 37.93% of Czech and 35.38% of Polish respondents, while "sometimes" was indicated by 16.55% of Czech and 16.92% of Polish students. Verifying information "rarely" was reported by 6.21% of Czech and 1.54% of Polish students, and only 3.67% of Czech students answered "never," whereas no Polish students gave this response. The results suggest that the majority of students in both countries approach knowledge gained through AI critically and actively verify it, with Polish students being slightly more cautious in this regard.

When asked whether pedagogy students consider the use of Artificial Intelligence during their studies a form of cheating, 5.52% of Czech students answered affirmatively, while no Polish students gave this response. The opposite opinion – that using AI is not cheating – was expressed by 22.76% of Czech and 18.46% of Polish students. The largest group of respondents, specifically 71.72% of Czech and 81.54% of Polish students, stated that the evaluation depends on how AI is used. The results show that the majority of students in both countries do not see the use of AI during studies as automatic cheating but rather emphasize the ethical aspects and the manner in which AI is utilized.

When asked whether they think Artificial Intelligence could threaten certain jobs in their field in the future, 37.93% of Czech and 35.38% of Polish students answered yes. Conversely, 40.0% of Czech and 49.23% of Polish respondents answered no. The response "I don't know" was given by 22.07% of Czech and 15.38% of Polish students. The results show that there are differing opinions among students regarding the impact of AI on the job market, with a slightly larger share of Polish students perceiving a lower risk of job displacement.

When asked if they are interested in further developing their skills in Artificial Intelligence and digital technologies, 82.07% of Czech and 47.69% of Polish students answered yes. The response "no" was chosen by 17.93% of Czech and 9.23% of Polish students, while "maybe" was selected by 0% of Czech and 43.08% of Polish students. The results indicate a significant difference between Czech and Polish students in their willingness to actively pursue further education in AI. While the majority of Czech students show a clear interest, Polish students are more divided on this issue.

When asked whether they use Artificial Intelligence outside of their studies, for example for writing emails, planning, or creative activities, 73.10% of Czech and 47.96% of Polish students answered "yes." The response "maybe" was given by 22.76% of Czech and 43.08% of Polish students, while "no" was chosen by 4.14%

of Czech and 9.23% of Polish respondents. The results show that Czech students use AI outside of academic purposes more frequently.

When asked about their general attitude towards the use of Artificial Intelligence in education, 26.90% of Czech and 4.62% of Polish students responded that they have a very positive attitude. A rather positive opinion was expressed by 41.38% of Czech and 53.85% of Polish respondents. A neutral attitude was reported by 27.59% of Czech and 32.31% of Polish students. AI in education is viewed somewhat negatively by 2.07% of Czech and 7.69% of Polish students, while a very negative attitude was expressed by 2.07% of Czech and 1.54% of Polish students. The results suggest that Czech students more often have a strongly positive attitude towards AI in education, whereas Polish students tend to lean towards a rather positive or neutral stance.

When asked whether they sometimes feel guilt or remorse when using Artificial Intelligence, 7.59% of Czech and 23.08% of Polish students answered "yes." The response "no" was chosen by 47.59% of Czech and 35.38% of Polish students. The option "yes, in academic matters, but no otherwise" was selected by 23.45% of Czech and 18.46% of Polish respondents, while "I never thought about it" was chosen by 21.38% of Czech and 23.08% of Polish students. The results show that feelings of guilt when using AI are more common among Polish students than Czech students, with a significant portion of students in both countries either feeling guilt only in an academic context or not considering the question at all.

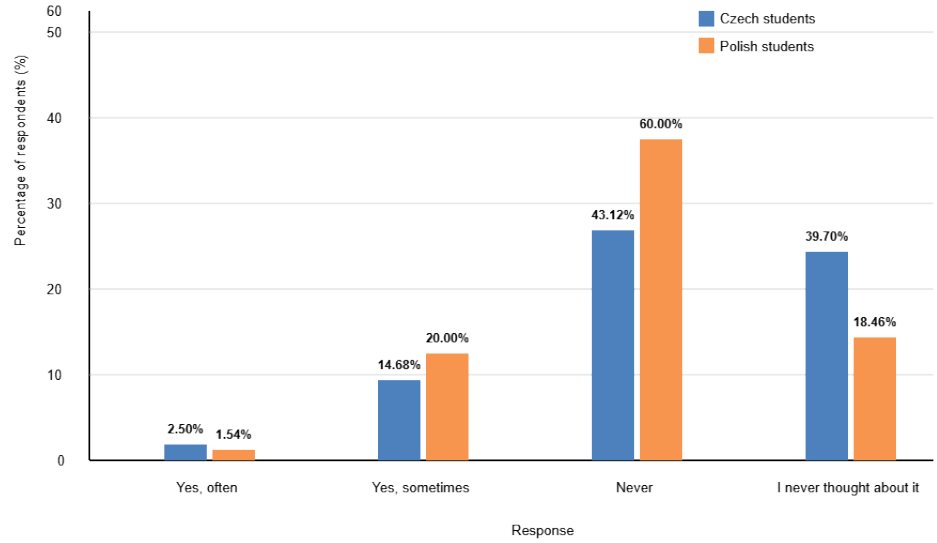

Figure 2. Studenst's Perceived Amount of Time Spent Using Artificial Intelligence

S o u r c e: Own work.

When asked whether they feel they spend a lot of time using Artificial Antelligence, only 2.50% of Czech and 1.54% of Polish students answered "yes, often." The option "yes, sometimes" was selected by 14.68% of Czech and 20% of Polish respondents. The response "never" was chosen by 43.12% of Czech and 60% of Polish students, while "I never thought about it" was indicated by 39.70% of Czech and 18.46% of Polish students. The results suggest that most students, especially in Poland, do not feel they spend excessive amounts of time using AI, with a significant portion of Czech students not even considering the question.

When asked whether they use artificial intelligence even in situations when they do not actually need it, for example out of habit or boredom, only 1.83% of Czech students and no Polish students answered "yes, all the time." The option "yes, out of habit" was chosen by 2.70% of Czech and 7.69% of Polish students, while "yes, when I'm bored" was selected by 8.11% of Czech and 9.23% of Polish respondents. The response "yes, when I'm nervous" was given by 2.75% of Czech and 3.08% of Polish students. On the other hand, the majority of students said they do not use AI without a specific need –this answer was chosen by 85.14% of Czech and 80% of Polish students. The results show that most students in both countries use AI primarily with purpose, while habitual or boredom-driven use of AI is rather rare, although Polish students report using AI out of habit or boredom more often than Czech students.

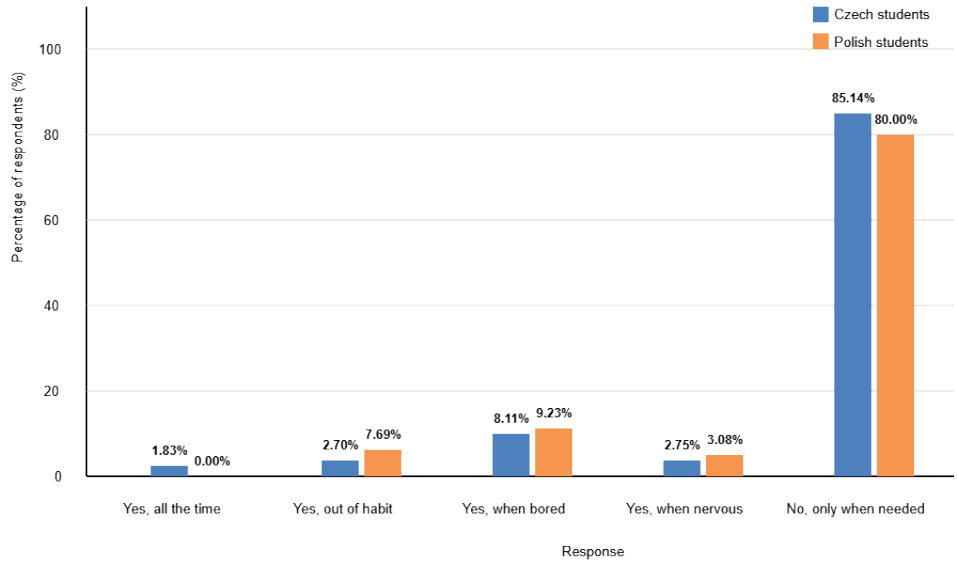

Figure 3. Use of Artificial Intelligence Without Actial Need

S o u r c e: Own work.

When asked whether schools should talk more about the possible risks of addiction to Artificial Intelligence, 86.21% of Czech and 80% of Polish students answered yes. Only 0.69% of Czech and 3.08% of Polish students stated that they do not see the need to discuss this topic. The option "I'm not sure whether the risks of addiction should be discussed more at school" was chosen by 13.10% of Czech and 16.92% of Polish students. The results suggest that a significant majority of students in both countries consider it important to discuss the risks of AI addiction more in schools.

5. Results of statistical data analysis

To verify the research hypotheses, the chi-square test of independence was used, which allowed for the identification of statistically significant differences between the responses of individual respondent groups.

The first research question (RQ1) and hypothesis (H1) focused on the use of Artificial Intelligence (AI) in the study environment revealed that the vast majority of Czech and Polish students use AI while studying. The difference between the two groups was not statistically significant ($\chi^2 = 0.37$; $p = 0.543$), indicating a similar level of AI adoption in both countries. Regarding the frequency of AI use, the differences in the frequency of use were also not statistically significant ($\chi^2 = 2.55$; $p = 0.638$).

Regarding the purpose of AI use, respondents most frequently reported using AI to generate ideas for practice, to search for specialized information, and to explain more complex concepts. A statistically significant difference was observed in only one area –creating presentations. While 44.62% of Polish students selected this option, only 28.28% of Czech students did ($\chi^2 = 8.31$; $p = 0.0039$). In the area of writing final and seminar papers, the majority of students indicated that they use AI at least occasionally. Differences between the groups were not statistically significant in this case either ($\chi^2 = 0.42$; $p = 0.81$). Similarly, for AI use in preparing for tests and exams, most of Czech and of Polish students responded affirmatively ($\chi^2 = 0.43$; $p = 0.51$). In the area of examining AI use in practical teaching statistical significance was not confirmed ($\chi^2 = 1.74$; $p = 0.19$).

The second research question (RQ2) and hypothesis (H2) focused on whether and how students use Artificial Intelligence outside their academic obligations,for example, when writing emails, planning, managing their time, or engaging in creative activities. Responses to this question revealed significant differences between Czech and Polish students, both in absolute numbers and in statistical significance. Statistical analysis ($\chi^2 = 13.88$; $df = 2$; $p \approx 0.001$) confirmed that these differences are statistically significant. Thus, hypothesis H2 was confirmed – there

is a statistically significant difference between Czech and Polish students in the extent of AI use in their personal lives. Czech students use Artificial Intelligence in a personal context significantly more often than their Polish peers.

The third research question (RQ3) and hypothesis (H3) focused on how Czech and Polish students assess the potential benefits of Artificial Intelligence for their future professional practice. Statistical analysis ($\chi^2 = 0.114$; $df = 2$; $p \approx 0.945$) again showed that there is no significant difference between the responses of Czech and Polish students.

An interesting addition to the previous questions was whether students believe that AI could threaten jobs in their field in the future. Statistical analysis ($\chi^2 = 1.29$, $df = 2$, $p \approx 0.53$) again showed that there is no significant difference between the responses of Czech and Polish students. Both groups have comparable perceptions of the risks that AI might bring to the labor market, although among Polish students there is a slightly higher proportion who completely reject the risk.

Research question RQ4 and hypothesis H4 investigated how Polish and Czech students evaluate their level of awareness regarding the possibilities of using Artificial intelligence in their field. The responses indicate that there are slight differences between Czech and Polish students in their self-assessment of awareness. To verify whether a statistically significant difference exists between the groups, a chi-square test of independence was conducted, yielding a χ^2 value of approximately 7.8 with 3 degrees of freedom and a p-value around 0.05. This result suggests that the difference is on the borderline of statistical significance, meaning that a statistically significant difference in self-assessed awareness between Czech and Polish students cannot be conclusively demonstrated, but small differences do exist, particularly with Polish students more frequently reporting a feeling of insufficient awareness.

Another survey question related to research question RQ4 and hypothesis H4 focused on students' awareness of the risks associated with using AI, such as inaccurate information, plagiarism, or ethical issuesThis difference was confirmed by a chi-square test with a value of approximately $\chi^2 = 11.5$, 3 degrees of freedom, and a p-value of approximately 0.009, indicating that there is a statistically significant difference in awareness of AI-related risks between Czech and Polish students. Polish students demonstrate a significantly higher level of knowledge about the risks associated with using Artificial Intelligence than Czech students.

The fifth research question (RQ5) and hypothesis (H5) focused on whether students from the Czech Republic and Poland are interested in training or courses related to the use of Artificial Intelligence in their field, as well as their general interest in further developing their AI and digital skills. The chi-square test for these responses ($\chi^2 = 0.978$, $df = 2$, $p \approx 0.613$) showed that the difference between Czech and Polish students in interest in training is not statistically significant. This result suggests that the majority of students in both countries are interested in expanding their knowledge of AI through specialized courses or training.

Research question RQ6 and hypothesis H6 focused on how Czech and Polish students perceive ethical issues related to the use of Artificial Intelligence in their studies, specifically whether they consider AI to be a form of cheating.. The chi-square test calculation yielded a value of $\chi^2 = 11.67$ with three degrees of freedom (df = 3) and a p-value of approximately 0.009. This p-value is less than 0.05, indicating a statistically significant difference between Czech and Polish students in feelings of guilt associated with using AI. Polish students more frequently express a general feeling of guilt, while Czech students tend to perceive guilt more narrowly in the study context or do not consider guilt at all.

Another survey question related to RQ6 and H6 focused on whether students consider the use of AI in their studies to be a form of cheating. The chi-square test for this question yielded a value of $\chi^2 = 5.58$ with df = 2 and a p-value of 0.061, the difference between Czech and Polish students is not statistically significant but close to the significance threshold.

Research question RQ7 and hypothesis H7 focused on how frequently Czech and Polish students verify information obtained through Artificial Intelligence from other sources. To test the statistical significance of differences between the two groups, a chi-square test was conducted, yielding a value of $\chi^2 = 6.44$ with four degrees of freedom (df = 4) and a p-value of approximately 0.168. Since the p-value is greater than 0.05, the null hypothesis cannot be rejected, meaning that the difference in the frequency of verifying information between Czech and Polish students is not statistically significant.The results show that the majority of students in both countries approach knowledge gained through AI critically and actively verify it, with Polish students being slightly more cautious in this regard, as evidenced by the higher proportion of those who always verify the information.

Research question RQ8 and hypothesis H8 focused on whether Polish and Czech students use Artificial Intelligence to better understand their specialized subjects. To verify the statistical significance of the differences between the two groups, a chi-square test was conducted, yielding a value of $\chi^2 = 2.88$ with two degrees of freedom (df = 2) and a p-value of approximately 0.24. Since the p-value is greater than 0.05, the null hypothesis cannot be rejected, meaning that the difference between Czech and Polish students' responses is not statistically significant. The results show that the majority of students in both countries perceive Artificial Intelligence as a useful tool that helps them better understand complex specialized topics.

Research question RQ9 and hypothesis H9 examined whether there is a statistically significant difference in the percentage of students between Czech and Polish students who are aware of the risks of AI dependency. A chi-square test for this distribution yielded a value of $\chi^2 = 16.78$ with 3 degrees of freedom and a p-value of approximately 0.0008, indicating that the difference between Czech and Polish students is statistically significant. The results suggest that most students, especially in Poland, do not feel that they spend excessive time with AI, while a significant

portion of Czech students had not considered this question at all. Additionally, the study investigated whether students use AI without a specific need, for example out of habit, boredom, or nervousness. However, the majority of students stated that they do not use AI without need. The chi-square test result ($\chi^2 = 14.55$, $df = 4$, $p = 0.0057$) again showed a statistically significant difference between the two groups. The results thus indicate significant differences between Czech and Polish students in the perception of addictive AI use. Polish students more often report using AI out of habit or boredom, whereas Czech students are more likely not to consider this issue at all. Nevertheless, overall, the majority of students in both countries do not perceive the time spent with AI as problematic.

Conclusion

The study showed that Artificial Intelligence (AI) is currently an integral part of the study practices of most pedagogy students in both the Czech Republic and Poland, supporting H1. The majority of students actively use AI for inspiration, accessing specialized information, and understanding complex concepts. Czech students use AI more frequently in their personal lives ($\chi^2 = 13.88$; $p \approx 0.001$), confirming H2, and show a markedly higher interest in further developing their digital and AI skills ($\chi^2 = 38.98$; $p < 0.0001$), confirming H5, while Polish students are better informed about the risks associated with AI ($\chi^2 \approx 11.5$; $p \approx 0.009$), supporting H4, and more often experience ethical dilemmas or feelings of guilt when using AI ($\chi^2 = 11.67$; $p \approx 0.009$), confirming H6. Both groups similarly assessed the benefits of AI for their future professional practice, with differences not statistically significant ($\chi^2 = 4.02$; $p \approx 0.40$), which relates to H3.

The collected data indicate that Artificial Intelligence has become a common part of both the academic and professional lives of future educators in the Czech Republic and Poland, which carries significant social and educational implications. The high level of AI usage in studies, exam preparation, and practical teaching suggests that digital technologies are no longer peripheral tools but structural elements of the educational landscape. From a societal perspective, this implies a transformation in the way future teachers will manage information, plan instruction, and support student learning, which could have a long-term impact on the overall quality of the education system.

The educational significance of the findings lies primarily in the fact that students use Artificial Intelligence purposefully and reflectively – particularly for understanding specialized topics, generating teaching ideas, and applying knowledge in practice. This confirms AI's potential as a supportive learning tool, rather than merely a means to simplify academic tasks. At the same time, the fact that

a substantial portion of students do not feel sufficiently informed about the possibilities of AI in their field points to insufficient institutional support and a lack of systematic education in this area.

A socially significant finding is also the relatively high level of ethical reflection among students. Most respondents are aware of the risks associated with AI use, regularly verify the information they obtain, and do not regard AI use as an automatic form of cheating, but rather consider the situational context of its application. This attitude suggests the emergence of a new form of digital literacy based on critical thinking and responsibility, which is crucial for the sustainable integration of AI into both education and broader society.

Another important societal aspect is that most students do not feel excessively dependent on Artificial Intelligence, and they do not use AI unnecessarily out of boredom or habit. At the same time, it is evident that schools should pay greater attention to the risks of potential AI addiction. In this regard, a preventive dimension of education and an open discussion about the psychosocial impacts of digital technologies are needed. Therefore, educational institutions should not only develop technical skills but also promote healthy and balanced technology use.

Overall, the findings are of critical importance for the future direction of teacher education. They point to the necessity of systematically integrating AI-related topics into university curricula, addressing practical skills as well as ethical, critical, and social dimensions. Such an approach can help ensure that future educators are not only capable of using AI effectively, but also able to responsibly reflect on AI-generated outcomes and integrate them meaningfully into educational practice.

Based on the findings, the following recommendations can be made:

1. Integration of AI into teacher training programs: Since students actively and regularly use AI for study purposes, AI should be incorporated into teacher education curricula. Courses should include not only technical skills but also the ability to evaluate the reliability of AI-generated information and use AI ethically.
2. Promotion of ethical and responsible AI use: Polish students more frequently experience ethical dilemmas or feelings of guilt when using AI. Educational institutions should provide clear guidelines and recommendations on when AI constitutes assistance and when its use may be considered unethical, helping students use AI with confidence and responsibility.
3. Encouragement of critical verification of information: While most students verify information obtained from AI, Polish students are more cautious than Czechs. Teachers should actively promote the habit of consistently cross-checking AI outputs with reliable sources.
4. Balanced and purposeful use of AI: Data show that students use AI both for specific tasks and as a general study assistant. AI should be used as a tool to support independent thinking – generating ideas, analyzing data, or understanding specialized topics – without replacing active engagement in learning.

5. Development of digital competencies: A high proportion of Czech students expressed interest in further developing AI and digital skills (84.4% positive responses), while Polish students were more divided. Structured courses or workshops should be offered to enhance these competencies in both groups and build confidence in effective AI use.
6. Awareness of AI's potential for habitual use: Polish students more frequently reported using AI out of habit or boredom ($\chi^2 = 16.78$; $p \approx 0.0008$). Students should be guided toward intentional and goal-oriented use of AI to prevent overreliance or unconscious usage.

Overall, AI represents a significant tool supporting both study and professional preparation for pedagogy students. Its effective and ethical use requires structured guidance, educational support, and development of digital competencies to maximize positive outcomes while minimizing risks such as dependency, misinformation, or unethical use. Despite cultural and educational differences between the Czech Republic and Poland, pedagogy students in both countries share similar attitudes toward AI and its role in education.

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Wykorzystanie sztucznej inteligencji w życiu akademickim i prywatnym studentów pedagogiki

S t r e s z c z e n i e

Niniejsze badanie przedstawia analizę porównawczą dotyczącą wykorzystania sztucznej inteligencji (SI) wśród studentów pedagogiki w Czechach i Polsce. Celem badania jest porównanie, w jaki sposób czescy i polscy studenci korzystają z SI zarówno w życiu akademickim, jak i prywatnym.

Badanie przeprowadzono metodą ilościową za pomocą ustrukturyzowanego kwestionariusza (25 pytań zamkniętych) dystrybuowanego na pięciu uczelniach w obu krajach (łącznie w badaniu wzięło udział 275 studentów pedagogiki: 130 z Polski i 142 z Czech) w maju i czerwcu 2025 roku. Analizę danych przeprowadzono przy użyciu testu chi-kwadrat niezależności.

Wyniki badania wykazały, że SI stała się już powszechną częścią życia akademickiego studentów pedagogiki w obu krajach. Większość respondentów zadeklarowała regularne korzystanie z AI, przy czym studenci polscy wykazywali nieco częstsze wykorzystanie niż studenci czescy. Studenci najczęściej korzystają z SI w celu pozyskiwania informacji, tworzenia prezentacji, pisania prac naukowych, tłumaczenia, sprawdzania gramatyki oraz rozumienia złożonych zagadnień. Studenci postrzegają SI jako korzystną dla swojej przyszłej praktyki zawodowej i większość z nich wykazuje zainteresowanie dalszą edukacją w tym zakresie. Jednocześnie są świadomi ryzyk związanych z korzystaniem z SI – szczególnie ryzyk etycznych i informacyjnych – i w większości przypadków weryfikują wyniki generowane przez SI za pomocą innych źródeł.

Badanie ujawniło również różnice między studentami w obu krajach – na przykład w częstotliwości wykorzystania SI w praktykach dydaktycznych, w poziomie postrzeganej świadomości lub w podejściu do korzystania z SI (np. odczuwanie poczucia winy). Wnioski z badania podkreślają potrzebę systematycznej integracji SI w edukacji, w tym szkoleń dotyczących jej ryzyk, oraz wsparcia w rozwijaniu kompetencji cyfrowych studentów w kontekście międzynarodowym.

S ł o w a k l u c z o w e: sztuczna inteligencja, szkolnictwo wyższe, studenci pedagogiki, badanie porównawcze, kompetencje cyfrowe, SI w edukacji, postawy studentów, etyczne wykorzystanie SI

The Use of Artificial Intelligence in Academic and Personal Life of Pedagogy Students

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Uso de la Inteligencia Artificial en la Vida Académica y Personal de los Estudiantes de Pedagogía

Resumen

Este estudio presenta un análisis comparativo centrado en el uso de la Inteligencia Artificial (IA) entre estudiantes de Pedagogía en la República Checa y Polonia. El objetivo de la investigación es comparar cómo los estudiantes checos y polacos utilizan la IA tanto en su vida académica como personal.

La investigación se llevó a cabo mediante un método cuantitativo a través de un cuestionario estructurado (25 preguntas cerradas) distribuido en cinco universidades de ambos países (participaron un total de 275 estudiantes de pedagogía: 130 de Polonia y 142 de la República Checa) durante mayo y junio de 2025. El análisis de los datos se realizó utilizando la prueba de independencia chi-cuadrado.

Los resultados muestran que la IA ya se ha convertido en una parte común de la vida académica de los estudiantes de Pedagogía en ambos países. La mayoría de los encuestados reportó usar la IA de manera regular, siendo los estudiantes polacos quienes mostraron una frecuencia ligeramente mayor que los checos. Los estudiantes utilizan la IA principalmente para la búsqueda de información, creación de presentaciones, redacción de trabajos académicos, traducción, corrección gramatical y comprensión de temas complejos. Los estudiantes perciben la IA como beneficiosa para su futura práctica profesional y la mayoría muestra interés en recibir más formación en este ámbito. Al mismo tiempo, son conscientes de los riesgos asociados al uso de la IA, especialmente los riesgos éticos e informativos, y en la mayoría de los casos verifican los resultados generados por la IA mediante otras fuentes.

La investigación también reveló diferencias entre los estudiantes de ambos países, por ejemplo, en la frecuencia de uso de la IA en la enseñanza práctica, en el nivel de conciencia percibida o en las actitudes relacionadas con el uso de la IA (como sentimientos de culpa). Las conclusiones del estudio subrayan la necesidad de integrar sistemáticamente la IA en la educación, incluyendo formación sobre sus riesgos y apoyo en el desarrollo de las competencias digitales de los estudiantes en un contexto internacional.

Palabras clave: Inteligencia Artificial, Educación Superior, Estudiantes de Pedagogía, Estudio Comparativo, Competencia Digital, IA en la Educación, Actitudes de los Estudiantes, Uso Ético de la IA

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Использование искусственного интеллекта в академической и личной жизни студентов педагогики

Аннотация

Данное исследование представляет собой сравнительный анализ использования искусственного интеллекта (ИИ) среди студентов педагогики в Чехии и Польше. Цель исследования – сравнить, как чешские и польские студенты используют ИИ как в академической, так и в личной жизни.

Исследование проводилось с использованием количественного метода через структурированную анкету (25 закрытых вопросов), распределённую среди пяти университетов в обеих странах (в исследовании приняли участие всего 275 студентов педагогики: 130 из Польши и 142 из Чехии) в мае и июне 2025 года. Анализ данных проводился с использованием критерия хи-квадрат для проверки независимости.

Результаты исследования показывают, что ИИ уже стал обычной частью академической жизни студентов педагогики в обеих странах. Большинство респондентов сообщили о регулярном использовании ИИ, при этом польские студенты демонстрировали немного более высокую частоту использования, чем чешские. Студенты чаще всего используют ИИ для поиска информации, создания презентаций, написания академических работ, перевода, проверки грамматики и понимания сложных тем. Студенты считают ИИ полезным для своей будущей профессиональной практики, и большинство выражает интерес к дальнейшему обучению в этой области. В то же время они осознают риски, связанные с использованием ИИ – особенно этические и информационные – и в большинстве случаев проверяют результаты, созданные ИИ, через другие источники.

Исследование также выявило различия между студентами двух стран – например, в частоте использования ИИ в практическом преподавании, в уровне осознанности или в отношении к использованию ИИ (например, чувство вины). Выводы исследования подчеркивают необходимость систематической интеграции ИИ в образование, включая обучение по его рискам, а также поддержку развития цифровых компетенций студентов в международном контексте.

К л ю ч е в ы е с л о в а: искусственный интеллект, высшее образование, студенты педагогики, сравнительное исследование, цифровая компетентность, ИИ в образовании, отношение студентов, этическое использование ИИ