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The Use of Artificial Intelligence in Didactics and Academic Research: A Pilot Study Among Academic Lecturers in Poland

Abstract

This article presents the results of a pilot study on the use of artificial intelligence (AI) in didactics and academic work among academic lecturers in Poland. The main objective was to identify the level of experience, barriers, and training needs related to AI among university lecturers. The study was conducted using a survey method (CAWI) on a sample of 120 academic lecturers from various higher education institutions. The analysis revealed that most participants have limited experience in using AI tools. The primary barriers include a lack of adequate training, insufficient time to learn new technologies, and inadequate technical support at the institution. Faculty members with higher academic titles and those who use AI tools less frequently display greater training needs. Academics from science and technical fields use AI more often compared to those from other disciplines. The results indicate the necessity of investing in training programs and technological support for academic lecturers to enhance the effective use of AI in education. Preferences regarding AI tools are strongly tied to their financial accessibility, suggesting a need to promote free or partially free tools. The findings can serve as a basis for developing strategies to support AI implementation in higher education, contributing to improved teaching quality and research efficiency.

K e y w o r d s: artificial intelligence, higher education, training needs, technological barriers, academic lecturers

Introduction

The introduction of artificial intelligence (AI) and modern technologies in higher education is gaining prominence. AI has the potential to revolutionize these areas by offering new tools and opportunities for both educators and students. In education, AI is used for personalized learning, automated assessment, and virtual assistant support, allowing for more efficient management of time and resources (Ouyang et al., 2022). Additionally, studies indicate that modern tools like Padlet can significantly support didactic and administrative processes by tailoring educational materials to the individual needs of students (Kopczyński & Szpyt, 2020). Smyrnova-Trybulska (2021) emphasizes the importance of lecturer development within comparative studies, which is crucial for understanding the impact of modern technologies on all levels of lecturer development, not just within academia.

A review of the literature indicates that the use of AI in higher education has significantly increased in recent years. Research by Ouyang and colleagues (2022) shows that since 2016, the number of publications on AI applications in higher education has grown considerably, particularly in the context of personalized learning and didactic support. AI is employed across various academic fields, from the natural sciences to the humanities, with a focus on enhancing the effectiveness of teaching and learning (Ouyang et al., 2022).

Studies by Kuleto et al., (2021) suggest that AI can greatly contribute to optimizing both didactic and administrative processes in higher education. Intelligent Tutoring Systems (ITS) and big data analysis tools enable precise adaptation of educational materials to students' individual needs, leading to improved educational outcomes (Kuleto et al., 2021).

In the research context, AI is used to support studies through the automation of data analysis and modeling. For example, machine learning algorithms can be applied to analyze biological research results, enabling faster discovery of new relationships and patterns (Duan, Edwards, & Dwivedi, 2019). Furthermore, AI optimizes time management for researchers by automating administrative tasks, allowing them to focus on the more creative aspects of research (Duan et al., 2019).

In summary, the literature highlights the extensive applications of AI in education and research, with the potential to significantly improve the efficiency and quality of didactic and research processes. However, it is essential to consider ethical aspects and develop standards for assessing the effectiveness of these technologies to ensure their sustainable development and implementation (Guilherme, 2019; Cardona et al., 2023).

Research Objective: Why This Study Is Important

The current pace of artificial intelligence (AI) implementation varies significantly across different economic sectors. In the private sector, especially in technology companies, AI is being rapidly adopted, leading to increased operational efficiency, innovation, and competitive advantage (Allioui & Mourdi, 2023). A prime example is the widespread use of AI in data analysis, business process automation, and personalized customer services (Allioui & Mourdi, 2023).

In contrast, the implementation of AI in universities and state-funded institutions is progressing much more slowly. This slower pace may be due to budget constraints, bureaucratic processes, and a lack of adequate technological infrastructure and AI specialists (Chen et al., 2024). Furthermore, educational institutions often face longer decision-making cycles and the need to adapt new technologies to existing educational and research structures (Ouyang et al., 2022).

Conducting research on the use of AI among academic lecturers is essential for understanding the current challenges and barriers, as well as for developing strategies to support the effective integration of AI into education and research. This will make it possible to identify best practices and tools that can facilitate digital transformation within the academic sector, ultimately contributing to improved teaching quality and research efficiency (Benavides et al., 2020).

Based on the above literature review, the following hypotheses have been proposed:

Hypothesis 1: The current experience of academic lecturers in using AI in higher education is largely limited or minimal. It is assumed that the majority of academic faculty members have little or limited experience with AI tools in their work. This hypothesis is based on preliminary pilot data indicating a low level of AI use in the teaching process.

Hypothesis 2: Training needs in the area of AI may be higher among faculty members holding senior academic titles, regardless of age, who rarely use AI tools in their teaching work. It is assumed that faculty members who use AI tools less frequently, regardless of age group, display greater training needs in AI usage in academic teaching. This hypothesis suggests that sporadic AI tool use results from a need for further education and training in this area.

Hypothesis 3: The use of AI tools in teaching is related to the age group and academic discipline represented by academic staff. It is assumed that faculty members from science and technical fields use AI tools more frequently in their teaching and research compared to faculty from other disciplines.

Hypothesis 4: The purpose of using AI in academic work affects the choice of AI tools, distinguishing between general-purpose tools, such as ChatGPT 3.5, Copilot, and Gemini, and specialized tools, such as Grammarly, Tome, and ResearchRabbit. It is assumed that faculty members who aim to use AI for specific purposes, such as

developing texts, lectures, or presentations, prefer narrowly-focused and specialized tools suited to these specific applications, rather than general AI assistants.
Hypothesis 5: Faculty members prefer tools that are free or partially free over entirely paid solutions. It is assumed that faculty members in Poland, without access to additional funding for building their own AI-based resources with advanced paid tools, will be more likely to select free or partially free solutions in surveys.

Literature Review on the Hypotheses

The literature on this topic shows a consensus regarding the limited experience of academic lecturers in utilizing AI. The studies conducted by the World Economic Forum (2023) and UNESCO (2023) indicate that, although awareness of tools like ChatGPT is high, the actual use of these technologies in teaching remains low. The report from the U.S. Department of Education (2023) suggests that while many lecturers are familiar with the basic functions of AI tools (Cardona et al., 2023), they lack advanced skills to integrate these tools into daily teaching practices (Cardona, et al., 2023; Chen, et al., 2022).

Faculty members who use AI tools less frequently show higher training needs, regardless of their age. Research indicates that infrequent use of AI tools among senior faculty members mainly results from a lack of previous technological education and limited access to training (World Economic Forum, 2023; Chen, 2023). These educators need support in the practical application of AI to improve teaching efficiency and time management (Chen, 2023).

Studies reveal that younger faculty members and those representing STEM fields are more likely to use AI tools. For instance, educators in technical and engineering disciplines use AI for modeling, simulations, and data analysis, whereas humanities faculty members use these tools less frequently (Cardona et al., 2023; Labadze et al., 2023).

The choice of AI tools depends on specific educational objectives. Lecturers who use AI for preparing teaching materials often select tools like Grammarly or Research Rabbit, whereas general-purpose tools like ChatGPT are utilized for a broader range of tasks, such as content generation or responding to student inquiries (Labadze et al., 2023).

Faculty members prefer AI tools that are free or partially free, given the limited budgets of institutions for educational technologies. The lack of funding for advanced AI tools is a primary reason why lecturers rely on free solutions (Cardona, et al., 2023).

Methodology

The study involved 150 academic lecturers from various higher education institutions in Poland, of which 30 surveys were incomplete and unsuitable for further analysis. Participant recruitment was conducted using a random sampling method. The participants were selected from university staff who expressed interest in participating after receiving an invitation sent electronically via the CAWI (computer-assisted web interview) method, ensuring complete anonymity. These invitations were sent to email addresses from a database maintained by a company that archives public records. The recruitment process included information about the study's objectives, its anonymity, and the option to withdraw at any stage without giving a reason. Respecting the time and convenience of respondents, the survey was designed to take no longer than 15 minutes to complete (Baker, et al., 2016).

The sample selection was based on the random selection of participants from an available database of academic lecturers. The sample structure was intended to reflect the demographic and professional characteristics of the entire population. It should also be noted that hypothesis testing in this study relied heavily on correlational methods, which justified the selection of a sufficiently large sample to ensure adequate statistical power (Cohen, 2013), allowing for the detection of statistically significant relationships.

Sample Characteristics

Assuming a significance level of $\alpha = 0.05$ and moderate effect sizes, a sample size of 120 provides statistical power of approximately 0.80, consistent with empirical research recommendations (Cohen, 2013). Adequate statistical power is essential for detecting significant relationships between variables. The research sample consisted of 120 academic lecturers, including 62 women (51.7%) and 58 men (48.3%). The mean age of participants was 47.5 years (SD = 10.2), with the youngest participant aged 29 and the oldest 68. The age distribution of participants is shown in Table 1 and Figure 1:

Table 1
Age Distribution of Participants

Age Group	Number of Participants	Percentage (%)
29–39 years	30	25.0
40–49 years	38	31.7
50–59 years	35	29.2
60–68 years	17	14.2
Total	120	100.0

S o u r c e: Own elaboration.

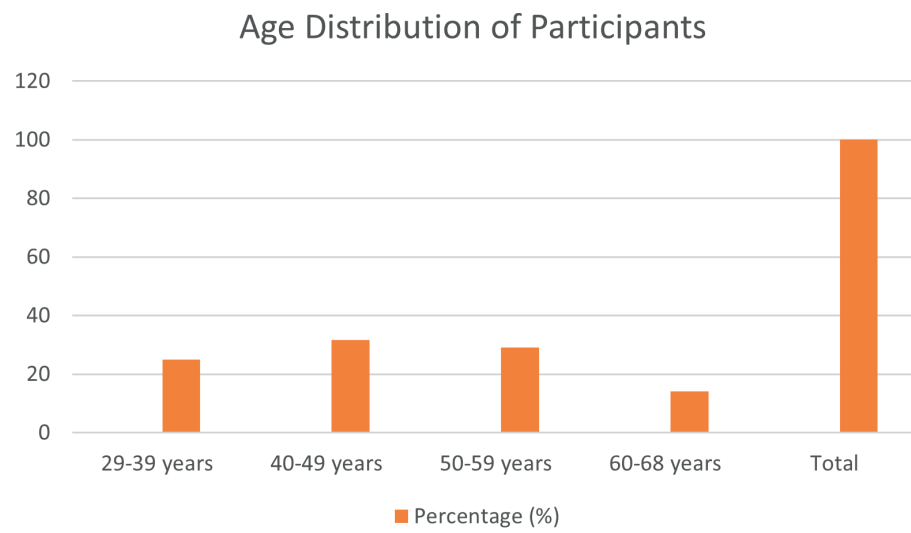

Figure 1. Age Distribution of Participants

S o u r c e: Own elaboration.

The study participants held various academic positions, as presented in Table 2 below.

Table 2
Academic Positions of Participants

Academic Position	Number of Participants	Percentage (%)
Assistant	20	16.7
Adjunct	50	41.7
Associate Professor	30	25.0
Full Professor	20	16.7
Total	120	100.0

S o u r c e: Own elaboration.

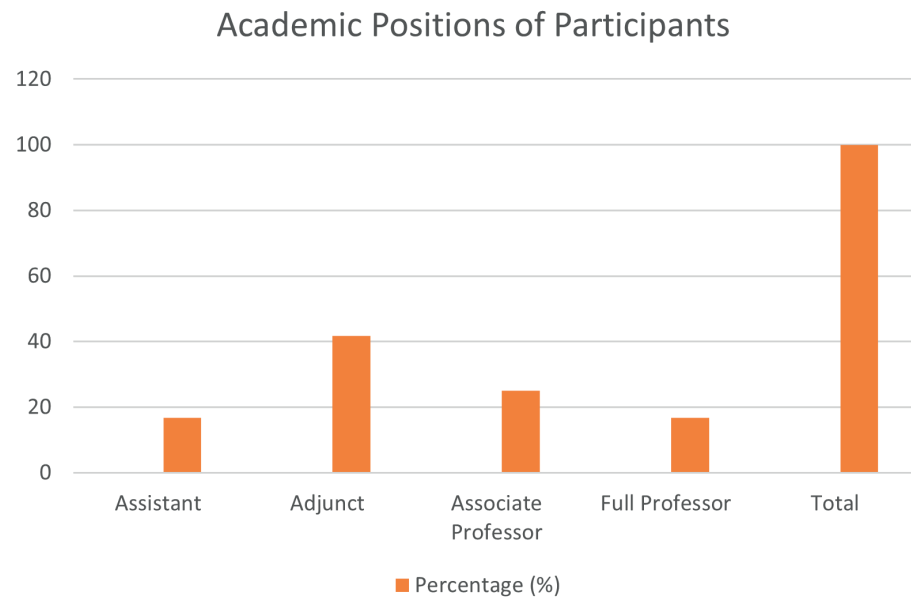

Figure 2. Academic Positions of Participants

Source: Own elaboration.

The surveyed academic lecturers represented various scientific fields, with the highest number in science and engineering and the fewest in medical sciences, as shown in Table 3.

Table 3
Scientific Fields of Participants

Scientific Field	Number of Participants	Percentage (%)
Science and Engineering	40	33.3
Humanities	30	25.0
Social Sciences	25	20.8
Natural Sciences	15	12.5
Medical Sciences	10	8.3
Total	120	100.0

Source: Own elaboration.

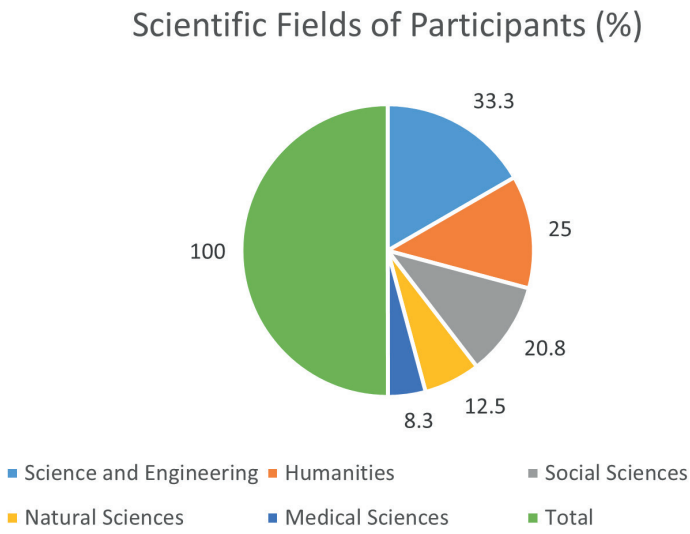

Figure 3. Scientific Fields of Participants

S o u r c e: Own elaboration.

According to the survey data, participants' experience with AI tools varied; however, the majority reported either no experience or only basic experience with AI. None of the respondents identified their proficiency level as very advanced, as shown in Table 4:

Table 4
Levels of Experience with Artificial Intelligence

Experience Level	Number of Participants	Percentage (%)
No Experience (1)	48	40
Basic Experience (2)	36	30
Intermediate Experience (3)	24	20
Advanced Experience (4)	12	10
Very Advanced Experience (5)	0	0
Total	120	100

S o u r c e: Own elaboration.

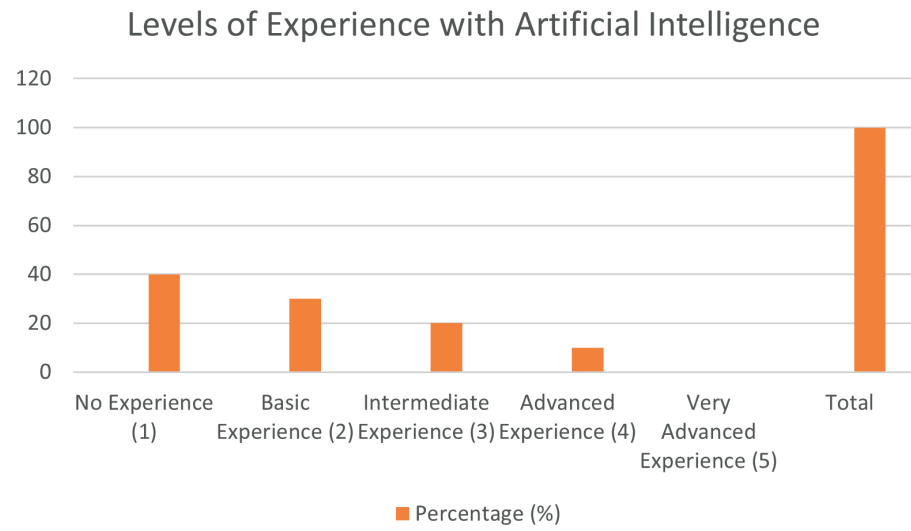

Figure 4. Levels of Experience with Artificial Intelligence

Source: Own elaboration.

Research Procedure

The study was conducted using CAWI online surveys, which were available to participants for one month. The surveys included questions on demographics, AI experience, and training needs related to AI. Both closed and open-ended questions were employed to gain a comprehensive view and allow participants to freely express their opinions. The collected data were analyzed using descriptive statistics and tests for differences between age groups and academic positions. The analysis aimed to identify major trends and differences in AI experience and training needs among academic lecturers.

Objective and Structure of the Questionnaire

The questionnaire used in the study was designed to assess the experiences, attitudes, and training needs of academic lecturers regarding the use of artificial intelligence (AI) in their work. It included both closed and open-ended questions divided into several sections, aimed at collecting demographic data, current

levels of AI use, barriers to implementation, and preferences for future training. The questionnaire was divided into six sections: Section 1 focused on demographic information; Section 2: AI Experience; Section 3: Barriers to AI Use; Section 4: Training Needs; Section 5: Preferences regarding paid and free software. The final Section 6 contained open-ended questions that allowed participants to express their opinions and suggestions on the use of AI in their work.

Results of the Study

The collected responses were analyzed using both statistical and qualitative methods. The analysis aimed to verify research hypotheses 1–5. Likert scales were analyzed in terms of mean values and distributions, while open-ended responses were coded and categorized to identify main themes and patterns. The study included 120 academic lecturers who rated their experience with AI tools on a Likert scale from 1 to 5. The average AI experience score was $\mu = 2.35$, indicating a low level of familiarity with this technology.

The standard deviation (SD) was 0.89, showing moderate variability in responses. These results confirm Hypothesis 1, that academic lecturers' experience with AI in didactics is largely limited. Mean values for the identified barriers to AI use in didactics were also rated on a Likert scale from 1 to 5, as presented in Table 5, with the following results: "I believe the lack of appropriate training is a significant problem in my didactic work": $\mu = 3.87$, SD = 1.02; "I agree that lack of time to learn new technologies hinders the use of AI tools": $\mu = 3.72$, SD = 1.15; "I believe the lack of technical support at the university is a significant barrier to using AI tools": $\mu = 3.45$, SD = 1.21. The greatest barrier proved to be the lack of adequate training, with a mean rating of 3.87 and a standard deviation of 1.02, indicating an urgent need to increase the availability and quality of training. The second significant barrier was the lack of time for learning new technologies, with a mean of 3.72 and a standard deviation of 1.15, suggesting that time management is a widespread issue. The third barrier was the lack of technical support at the university, rated at 3.45 with a standard deviation of 1.21, indicating a need for improved technical infrastructure. Overall, these findings underscore the need for investments in training, time management, and technical support to effectively integrate AI into the didactic process.

Table 5
Mean Values of AI Experience

Variable	Mean (μ)	Standard Deviation (SD)
AI Experience	2.35	0.89
Frequency of AI Use	1.92	0.78
Lack of Appropriate Training	3.87	1.02
Lack of Time for AI Learning	3.72	1.15
Lack of Technical Support	3.45	1.21

S o u r c e: Own elaboration.

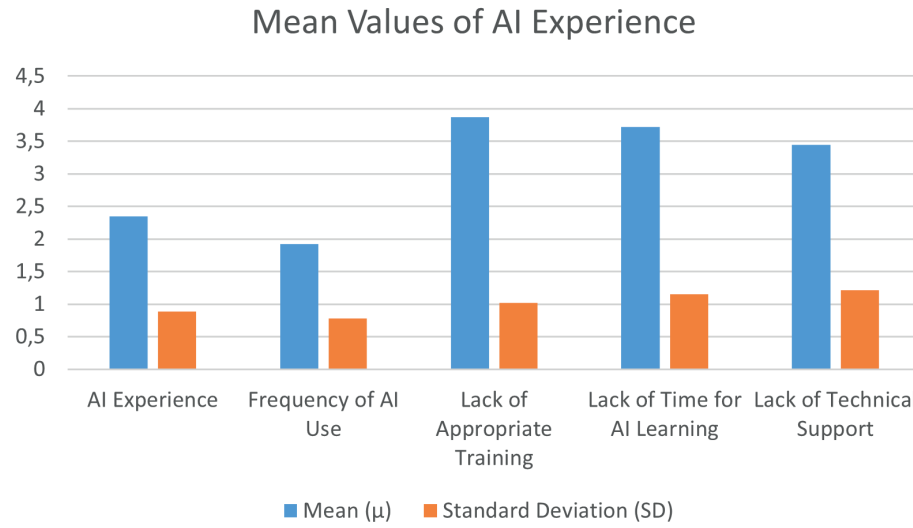

Figure 5. Mean Values of AI Experience

S o u r c e: Own elaboration.

High mean values in these categories indicate that lecturers experience significant barriers in implementing AI, which may explain the limited use of these technologies and supports the assumptions of Hypothesis 1. The frequency of AI use was rated on a scale from 1 (never) to 5 (daily). The mean frequency score was μ = 1.92, SD = 0.78. Low mean values indicate infrequent use of AI in daily teaching activities, further supporting the assumptions of Hypotheses 1 and 2. Preferences regarding software choices were rated on a scale from 1 (prefer paid tools) to 3 (prefer free tools): "I prefer free tools": μ = 2.78, SD = 0.43; "I prefer partially free tools": μ = 2.55, SD = 0.49; "I prefer paid tools": μ = 1.67, SD = 0.61. High mean values for preferences toward free and partially free tools indicate that faculty members prefer tools that do not incur additional costs, confirming Hypothesis 5.

The study found that academic lecturers have limited experience with AI tools, with major barriers being the lack of appropriate training, lack of time, and lack of technical support. Senior faculty members showed higher training needs, confirming Hypothesis 2. Moreover, faculty members under 40 and those from scientific fields were more frequent users of AI tools, supporting Hypothesis 3. Preferences for AI tools showed a clear inclination towards free or partially free tools, consistent with Hypothesis 5. Additionally, the study of preferences regarding types of AI tools revealed that lecturers choose tools based on specific didactic goals, supporting Hypothesis 4. These findings suggest that increased access to training and technical support could significantly improve the use of AI tools in academic teaching.

The results from Pearson correlation tests indicated statistically significant relationships between variables. A moderate negative correlation was found between academic degree and AI knowledge ($r = –0.45$, $p < 0.01$), suggesting that faculty with higher academic ranks may use AI tools less frequently. Additionally, the correlation between age and frequency of AI use was also negative and moderate ($r = –0.38$, $p < 0.01$), indicating that older faculty members use AI less frequently. These findings support Hypothesis 2, suggesting that older faculty members exhibit greater training needs in AI utilization.

To identify factors influencing AI use, a multiple regression analysis was conducted. The results indicate that age, scientific field, and level of AI experience are significant predictors of AI usage frequency ($F(3, 116) = 25.63$, $p < 0.001$, $R^2 = 0.40$). Age had a negative impact on AI use ($\beta = –0.29$, $p < 0.01$), confirming Hypothesis 3 that senior faculty members use AI less frequently. Scientific field had a positive effect, especially among faculty in scientific and technical disciplines ($\beta = 0.35$, $p < 0.001$), supporting Hypothesis 3 that faculty representatives in these fields use AI more frequently. Level of AI experience also had a positive effect on AI usage frequency ($\beta = 0.41$, $p < 0.001$), suggesting that greater experience translates into more frequent use of these tools.

Table 6
Pearson Correlation and Multiple Regression Analysis Results

Variable	r/Beta (β)	p-value	Interpretation
Academic Degree and AI Knowledge	–0.45	< 0.01	Moderate, negative correlation
Age and Frequency of AI Use	–0.38	< 0.01	Moderate, negative correlation
Age	–0.29	< 0.01	Negative effect on AI use
Scientific Field (Technical Disciplines)	0.35	< 0.001	Positive effect on AI use
Level of AI Experience	0.41	< 0.001	Positive effect on AI use

S o u r c e: Own elaboration.

To compare differences between groups, independent samples t-tests were conducted: The comparison of faculty age groups showed that those under 40 years of age reported higher average AI use ($\mu = 2.65$, $SD = 0.70$) compared to those over 50 years ($\mu = 1.75$, $SD = 0.80$), $t(118) = 5.45$, $p < 0.001$, suggesting that faculty members under 40 use AI tools more frequently in their teaching than those over 50.

Conclusions

The results of this study indicate limited experience among academic lecturers in using artificial intelligence (AI) in didactics. The mean AI experience score of $\mu = 2.35$ and low frequency of tool use ($\mu = 1.92$) confirm Hypothesis 1, suggesting that most faculty members have minimal or limited experience in this field. These findings are consistent with previous studies indicating a low level of AI technology integration in higher education (Mercader, 2020). Correlations between age and AI use frequency ($r = –0.38$) and academic rank and AI knowledge ($r = –0.45$) suggest that faculty with higher academic ranks and those who use AI tools less frequently exhibit greater training needs. Regression analysis results indicate that age, academic field, and level of AI experience are significant predictors of AI usage frequency. Younger faculty members and those in technical fields use AI tools more frequently, supporting Hypothesis 3.

Significance of the Findings

The study's findings have important practical implications for academic teaching and research. Faculty members' limited experience with AI and identified barriers, such as lack of adequate training and technical support, suggest the need for investment in training programs and technical support for faculty (Chen, 2020). Increasing the availability of training and technical support could significantly enhance the integration of AI tools in the teaching process, leading to more effective teaching and improved educational outcomes. The preference for free and partially free tools suggests a need to develop and promote accessible AI tools that do not impose additional costs on faculty. This approach would enable the broad application of these technologies, even in institutions with limited budgets (Cardona et al., 2023).

Study Limitations

Despite the valuable insights provided by this study, certain limitations may affect the interpretation of results. First, the research sample consisted of 120 academic lecturers, which may limit the generalizability of results to the entire academic population in Poland. Second, the study relied on self-assessment by participants, which may introduce biases associated with subjective evaluation of one's skills and experience, as it was not compared against an objective competency test. Furthermore, the study focused primarily on Polish higher education institutions, so the data collected may not reflect the diversity of results present in an international context. This article presents only selected findings, focusing on aspects that were statistically significant for testing the research hypotheses.

Omission of some data was due to several important reasons:

1. Lack of statistical significance: Statistical analysis indicated that some data did not show significant correlations with the examined variables. For example, preferences regarding the format of training (workshops, online courses, etc.,) did not differ significantly between groups with varying levels of AI experience. Therefore, these results were excluded from the article to focus on more relevant associations.
2. Low response rate for open-ended questions: Qualitative questions intended to gather opinions and suggestions often have lower response rates compared to closed-ended questions. In this study, a substantial portion of respondents did not answer open-ended questions, precluding a reliable qualitative analysis.
3. Limited article length: Scientific publications generally have word limits, necessitating selective reporting of findings. Consequently, the author decided to focus on statistically significant data directly related to the research hypotheses.
4. Potential for further research: Although insufficient for a complete analysis within this article, the qualitative data collected represents valuable material for future research. Qualitative analysis of academic lecturers' opinions and needs could be the subject of a separate article, providing a deeper understanding of the studied phenomenon.

This article serves as an initial exploration of the issue of AI use in academic teaching. Focusing on statistically significant quantitative data enabled verification of the research hypotheses and the identification of directions for further action. Future research, incorporating qualitative analysis and a broader scope of data, may contribute to a more comprehensive understanding of the needs and challenges associated with AI implementation in academic education.

Suggestions for Future Research

Future research in this area should include larger and more diverse samples to better understand the phenomenon in an international context. Additionally, longitudinal studies would be valuable for assessing changes in the experiences and attitudes of academic lecturers toward AI over time. Research could also focus on a detailed analysis of the effectiveness of various training programs and the identification of best practices in integrating AI tools into academic teaching. An interesting approach would be to compare academic lecturers with another group of professionals in intellectual or office-based roles, such as managerial staff, to provide a more comprehensive picture of AI usage levels and scopes.

Another possible step could involve analyzing specific cases of AI use across different scientific fields to identify the unique needs and challenges associated with implementing these technologies in various didactic contexts. Future research could examine how AI influences students' educational outcomes and satisfaction with the learning process. It could also compare the results of groups taught by faculty applying AI tools with those taught by faculty that does not use such tools.

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Wykorzystanie sztucznej inteligencji w dydaktyce i pracy naukowej: badanie pilotażowe wśród nauczycieli akademickich w Polsce

Streszczenie

Artykuł przedstawia wyniki pilotażowego badania dotyczącego wykorzystania sztucznej inteligencji (SI) w dydaktyce i pracy naukowej wśród nauczycieli akademickich w Polsce. Celem głównym badania było zidentyfikowanie poziomu doświadczenia, barier oraz potrzeb szkoleniowych związanych z SI wśród nauczycieli akademickich. Badanie przeprowadzono metodą ankietową

(CAWI) na próbie 120 nauczycieli z różnych uczelni wyższych. Analiza wyników ujawniła, że większość uczestników posiada ograniczone doświadczenie w korzystaniu z narzędzi SI. Główne bariery obejmują brak odpowiedniego szkolenia, brak czasu na naukę nowych technologii oraz brak wsparcia technicznego na uczelni. Wykładowcy posiadający wyższe tytuły naukowe oraz rzadziej korzystający z narzędzi SI wykazują większe potrzeby szkoleniowe. Wykładowcy z nauk ścisłych i technicznych częściej korzystają z SI w porównaniu do wykładowców z innych dyscyplin. Wyniki wskazują na konieczność inwestowania w programy szkoleniowe oraz wsparcie technologiczne dla kadry akademickiej, aby zwiększyć efektywność wykorzystania SI w dydaktyce. Preferencje dotyczące narzędzi SI są silnie związane z ich dostępnością finansową, co wskazuje na potrzebę promowania narzędzi bezpłatnych lub częściowo bezpłatnych. Wnioski z badania mogą stanowić podstawę do opracowania strategii wspierających wdrażanie SI w edukacji wyższej, przyczyniając się do poprawy jakości kształcenia oraz efektywności badawczej.

S ł o w a k l u c z o w e: SI (sztuczna inteligencja), edukacja wyższa, potrzeby szkoleniowe, bariery technologiczne, kadra akademicka

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El uso de la inteligencia artificial en la didáctica y el trabajo académico: un estudio piloto entre el personal docente en Polonia

R e s u m e n

Este artículo presenta los resultados de un estudio piloto sobre el uso de la inteligencia artificial (IA) en la didáctica y el trabajo académico entre el personal docente en Polonia. El objetivo principal del estudio fue identificar el nivel de experiencia, las barreras y las necesidades formativas relacionadas con la IA entre los docentes universitarios. El estudio se llevó a cabo mediante un método de encuesta (CAWI) en una muestra de 120 profesores de diversas instituciones de educación superior. El análisis de los resultados reveló que la mayoría de los participantes tiene una experiencia limitada en el uso de herramientas de IA. Las principales barreras incluyen la falta de formación adecuada, la falta de tiempo para aprender nuevas tecnologías y la falta de apoyo técnico en las universidades. Los docentes con títulos académicos superiores y aquellos que utilizan herramientas de IA con menor frecuencia muestran mayores necesidades de formación. Los profesores de disciplinas científicas y técnicas utilizan la IA con mayor frecuencia en comparación con los docentes de otras áreas. Los resultados destacan la necesidad de invertir en programas de formación y apoyo tecnológico para el personal docente universitario, con el fin de mejorar la eficacia en el uso de la IA en la didáctica. Las preferencias en cuanto a herramientas de IA están fuertemente vinculadas a su accesibilidad económica, lo que subraya la importancia de promover herramientas gratuitas o parcialmente gratuitas. Las conclusiones de este estudio pueden servir como base para desarrollar estrategias que respalden la implementación de la IA en la educación superior, contribuyendo a mejorar la calidad de la enseñanza y la eficacia de la investigación.

P a l a b r a s c l a v e: IA (inteligencia artificial), educación superior, necesidades de formación, barreras tecnológicas, personal docente universitario

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Использование искусственного интеллекта в дидактике и научной работе: пилотное исследование среди преподавателей вузов в Польше

Аннотация

В данной статье представлены результаты пилотного исследования, посвящённого использованию искусственного интеллекта (ИИ) в дидактике и научной работе среди преподавателей вузов в Польше. Основной целью исследования было выявление уровня опыта, барьеров и потребностей в обучении, связанных с использованием ИИ, среди университетских преподавателей. Исследование было проведено методом анкетирования (CAWI) на выборке из 120 преподавателей различных высших учебных заведений. Анализ результатов показал, что большинство участников имеют ограниченный опыт использования инструментов ИИ. Основные барьеры включают недостаток соответствующего обучения, нехватку времени на освоение новых технологий и отсутствие технической поддержки в университетах. Преподаватели с высокими научными званиями и те, кто реже пользуется инструментами ИИ, испытывают большую потребность в обучении. Преподаватели естественнонаучных и технических дисциплин чаще используют ИИ по сравнению с коллегами из других областей. Результаты исследования подчёркивают необходимость инвестирования в программы обучения и техническую поддержку преподавательского состава, чтобы повысить эффективность использования ИИ в образовательном процессе. Предпочтения в выборе инструментов ИИ тесно связаны с их финансовой доступностью, что указывает на важность продвижения бесплатных или частично бесплатных решений. Выводы исследования могут служить основой для разработки стратегий поддержки внедрения ИИ в высшем образовании, способствуя улучшению качества преподавания и эффективности научной деятельности.

Ключевые слова: ИИ (искусственный интеллект), высшее образование, потребности в обучении, технологические барьеры, преподавательский состав