GÖÇ ARAŞTIRMALARI DERGİSİ
THE JOURNAL OF MIGRATION STUDIES

Cilt/Volume: 12 | Sayı/Issue: 1 (Özel Sayı) | Haziran/June 2026 | s. 135-149
DOI: https://doi.org/10.70972/gad.1887796

HOW ACCURATELY DO ARTİFİCİAL INTELLİGENCE CHATBOTS EXPLAİN INTERNATİONAL PROTECTİON? A COMPARATİVE EVALUATİON

Araştırma Makalesi

Received: 4 Şubat 2025

Accepted: 30 Temmuz 2026

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Abstract

Background: This study aims to comparatively evaluate the performance of artificial intelligence chatbots in explaining fundamental concepts and processes related to international protection status. Within the scope of the research, a set of 10 questions related to international protection status was posed to the OpenAI ChatGPT-5, Google Gemini 2.5 Flash, and Microsoft Copilot Think Deeper models in October 2025.

Objective: The initial responses generated by the models were scored by five academics specialising in migration using a blind evaluation method. The evaluation process was based on the Handbook on Procedures and Criteria for Determining Refugee Status and Guidelines on International Protection developed by the United Nations High Commissioner for Refugees (UNHCR).

Method: The responses were evaluated on a five-point scale according to their accuracy and comprehensiveness. Kendall's W coefficient was used to determine inter-rater agreement in the analysis of the data obtained, while the Friedman test was used to test the differences between the artificial intelligence models.

Results: The findings show that all models are generally accurate but often provide limited and superficial explanations. It was found that ChatGPT's average scores were higher than those of other models, but there were significant differences between models, particularly in concepts open to legal interpretation, such as “complementary protection”.

Conclusion: Consequently, it was concluded that artificial intelligence chatbots could serve as auxiliary tools providing rapid access to fundamental information in the field of international protection, but could not replace expert assessment in rights-based and legally consequential individual application processes.

Keywords: International protection, artificial intelligence, ChatGPT, Gemini, Copilot.

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YAPAY ZEKÂ SOHBET BOTLARI ULUSLARARASI KORUMAYI NE KADAR DOĞRU AÇIKLIYOR? KARŞILAŞTIRMALI BİR DEĞERLENDİRME

Research Article

Makale Gönderim Tarihi: 4 Şubat 2025
Makale Kabul Tarihi: 30 Temmuz 2026

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Özet

Arka Plan: Bu çalışma, uluslararası koruma statüsüne ilişkin temel kavram ve süreçlerin açıklanmasında yapay zekâ sohbet robotlarının performansını karşılaştırmalı olarak değerlendirmeyi amaçlamaktadır. Araştırma kapsamında, uluslararası koruma statüsüne ilişkin 10 soruluk bir soru seti Ekim 2025'te OpenAI tarafından geliştirilen ChatGPT-5, Google Gemini 2.5 Flash ve Microsoft Copilot Think Deeper modellerine yöneltilmiştir.

Amaç: Modeller tarafından üretilen ilk yanıtlar, göç alanında uzman beş akademisyen tarafından kör değerlendirme yöntemiyle puanlanmıştır. Değerlendirme süreci, Birleşmiş Milletler Mülteciler Yüksek Komiserliği tarafından geliştirilen Uluslararası Koruma Kılavuzları ve Mülteci Statüsünün Belirlenmesine İlişkin Usul ve Kriterler El Kitabı esas alınarak yürütülmüştür.

Yöntem: Yanıtlar doğruluk ve kapsamlılık ölçütleri temelinde beşli Likert tipi ölçek kullanılarak değerlendirilmiştir. Elde edilen verilerin analizinde değerlendiriciler arası uyumu belirlemek amacıyla Kendall'ın W katsayısı kullanılmış; yapay zekâ modelleri arasındaki farklılıkların test edilmesinde ise Friedman testi uygulanmıştır.

Bulgular: Bulgular, tüm modellerin genel olarak doğru yanıtlar üretmekle birlikte açıklamaların çoğu zaman sınırlı ve yüzeysel kaldığını göstermektedir. ChatGPT'nin ortalama puanlarının diğer modellere kıyasla daha yüksek olduğu saptanmış; ancak özellikle "tamamlayıcı koruma" gibi hukuki yoruma açık kavramlarda modeller arasında anlamlı farklılıklar bulunduğu belirlenmiştir.

Sonuç: Sonuç olarak, yapay zekâ sohbet robotlarının uluslararası koruma alanında temel bilgilere hızlı erişim sağlayan yardımcı araçlar olarak işlev görebileceği; ancak hak temelli ve hukuki sonuç doğuran bireysel başvuru süreçlerinde uzman değerlendirmesinin yerini alamayacağı sonucuna ulaşılmıştır.

Anahtar Kelimeler: Uluslararası koruma, yapay zekâ, ChatGPT, Gemini, Copilot.

1. Introduction

Technologies emerging with the rapid advancement of the digital age are having a multifaceted impact across various sectors, including healthcare, economics, communication, and industry (Schwab, 2017). Technological developments are also making their mark in education. Technological developments are also making their mark in education. These developments necessitate the integration of technology into education, thereby contributing to the development of individuals' everyday life skills. Artificial intelligence is one of the most important stakeholders in the integration of education and technology today. Artificial intelligence is a system that enables a device to adapt to new situations, cope with problems, and answer various questions through machine learning, performing human intelligence-based activities in a static or stable manner (Chen et al., 2020; McCarthy & Wright, 2004).

Due to the capabilities of these systems, such as their high data processing speed, advanced algorithms, and ability to perform big data analysis, individuals are increasingly using artificial intelligence for various purposes such as translation, data analysis, image generation, and chatting (Zeide, 2019). Examples of artificial intelligence chatbots commonly used for the purposes mentioned above include Google Gemini, OpenAI ChatGPT, Writesonic, Microsoft Copilot, and DeepAI (Koçyiğit & Darı, 2023).

The use of generative artificial intelligence chatbots came to the fore in November 2022 with the company's launch of ChatGPT. OpenAI was a large language model (LLM) that rapidly became one of the fastest-growing user bases within the first few months of its launch. Other companies also launched chatbots; for example, Artifical intelligence chatbots such as Gemini and Microsoft Copilot increased in the market (Cohen et al., 2025). The rise in innovative technologies and people's cross-border mobility prompted states to reassess how they manage migration. Today, governments and international organisations using artificial intelligence in migration management play a central role in defining migrants' identities and, consequently, the opportunities, protection, and assistance they can access (Nalbandian, 2022). An examination of Google Trends statistics reveals that searches for the keyword ‘international protection’ have increased over the last decade, reaching a peak in 2025 (Google Trends, 2025). Furthermore, Migration Data Portal statistics show that by the end of 2024, 304 million individuals worldwide were classified as international migrants, accounting for approximately 3.72% of the global population (Global Migration Data Portal, 2025). International protection statistics show a sharp increase since 2021. In 2022 and 2023, there were over 2.6 million new international protection applications and millions of backlogged cases (IOM, 2024).

As more and more countries turn to digital governance strategies, various artificial intelligence tools are being integrated into the field of migration management, such as identity checks, border security and control, and the analysis of data related to visa and asylum applicants, this will increase the efficiency and accuracy of the migration process (Rönsch, 2024). As the use of artificial intelligence chatbots in the field of migration increases, both those working in the field of migration need to learn about artificial intelligence chatbots and migrants applying for status need accurate and comprehensive information on complex status appeals. The sudden increase in international protection applications seen after 2021 and the accumulation of millions of files with new application figures exceeding 2.6 million annually in the 2022–2023 period show that protection systems are reaching their capacity limits.

Information production plays a critical role in managing these rapidly increasing numbers, ensuring chatbots are assessed accurately and consistently, and, crucially, sustaining a rights-based protection mechanism. At this very point, the accuracy, reliability and comprehensiveness of the answers given regarding the meaning of international protection status in the age of artificial intelligence have become more important than ever. In this context, recent literature has drawn attention to the phenomenon commonly referred to as artificial intelligence hallucinations, defined as the generation of responses that appear coherent and authoritative but contain incomplete, misleading, or normatively incorrect information (Alkaissi & McFarlane, 2023; Ji et al., 2023). The increasing volume of data, diversifying application profiles and rapidly changing global risk environment require both experts and digital tools to rely on correct conceptual definitions. The widespread use of artificial intelligence-based systems necessitates that accurate information, the current legal framework, and human rights norms are correctly reflected in algorithmic processes. This study aims to evaluate the ability of three leading artificial intelligence chatbots to answer questions related to international protection status. Specifically, it aims to determine the accuracy, comprehensiveness, and level of variability of the responses provided.

2. Method

This section of the study includes information regarding the research model, the study group, the data collection process, data analysis, and ethical considerations.

2.1. Research model

In October 2025, a set of 10 questions related to international protection status for artificial intelligence chatbots was entered. The models included Open AI's ChatGPT-5, Google's Gemini 2.5 Flash, and Microsoft's Copilot Think Deeper application. The initial responses generated by each artificial intelligence model were included in the study.

2.2. Sample

The initial responses generated by each artificial intelligence model were included in the study. The AI-generated responses were evaluated by an independent panel of five academics, selected via purposive sampling. All evaluators hold at least an Associate Professor rank in social sciences. A strict inclusion criterion was active field research experience in migration studies, ensuring their high-level familiarity with UNHCR guidelines and international protection procedures.

2.3. Data collection process

After the data collection process was completed, each response provided by the artificial intelligence chatbots was evaluated by five academics specialising in migration. The evaluation process was conducted blindly. The Handbook on Procedures and Criteria for Determining Refugee Status and Guidelines on International Protection, developed by the UNHCR (2019) in an evidence-based manner, was provided to the evaluators for the evaluation process. The evaluation criteria were defined as follows: (1) Completely incorrect, (2) Mostly incorrect, (3) Mostly correct, (4) Correct but insufficient, (5) Completely correct and comprehensive, to reduce variability stemming from differing professional interpretations, evaluators were provided with the UNHCR Handbook and Guidelines as a shared reference standard and were instructed to prioritise definitional

fidelity and completeness rather than stylistic features. The blind evaluation procedure aimed to minimise brand-related bias across models.

In this study, all queries were presented to the artificial intelligence chatbots in Turkish, and the corresponding responses were obtained in Turkish. For the purpose of reporting and presentation in this manuscript, the original Turkish questions and the AI-generated responses were translated into English by the researchers.

2.4. Data analysis

Ten questions were independently examined to determine the evaluator agreement between the three artificial intelligence chatbots used. Using Kendall's W coefficient, evaluator agreement among the three artificial intelligence programmes was assessed for each question. Kendall's W coefficient assessed reliability among evaluators, and the significance of the chi-square test applied indicated agreement among evaluators. In addition, a non-parametric one-way analysis of variance was used in the measurements. The Friedman test was applied to test whether the mean scores of the three different artificial intelligence models on the same question were significantly different. Statistical analyses were conducted in accordance with the ordinal data structure. The median and mean standard deviations of the evaluators for each question were presented for each artificial intelligence application. The P-value obtained from the Friedman test indicates whether there is a difference in the ratings between evaluators. In this case, it was assumed that the rating scale was ordinal. Inter-rater agreement was subsequently quantified using Kendall's W to examine the consistency of expert ratings across questions.

2.5. Ethics

Ethical committee approval is not required for this study. Informed consent was obtained from the five academic experts who participated as evaluators in this study. Their participation was strictly voluntary, and all identifying information was completely anonymized and securely stored.

2.6. Limitations

This study has several limitations that should be considered when interpreting the findings. First, the evaluation of artificial intelligence–generated responses relied on expert judgment, which may be influenced by individual professional perspectives and interpretative differences, particularly in a field characterised by legal and normative complexity. Although this potential bias was mitigated through the inclusion of five independent evaluators and the use of a shared reference framework based on UNHCR guidelines, some degree of subjectivity remains unavoidable. Second, the study was based on a limited set of ten questions, which may not fully capture the breadth and practical complexity of international protection procedures or reflect the diverse informational needs of applicants in real-world contexts. Third, the absence of a validated and standardised instrument for assessing the quality of AI-generated legal explanations necessitated the use of a researcher-defined ordinal rating scale, which may limit the comparability of results across studies. Finally, the rapid and ongoing evolution of artificial intelligence models means that the findings represent a snapshot in time and may not fully reflect future improvements or changes in system performance.

Table 1. *Example Chatbot Response To Question "Who İs Eligible For İnternational Protection Status?.*

International protection status is generally granted to individuals who are outside of their home country and cannot safely return because they face a well-founded fear of persecution or a real risk of serious harm. This status has two main forms. The first is Refugee Status, which is granted if a person fears persecution based on their race, religion, nationality, political opinion, or membership in a particular social group. The second is Subsidiary Protection, which applies to individuals who do not meet the refugee criteria but face a substantial risk of serious harm, such as being sentenced to death, subjected to torture, or facing a serious threat due to indiscriminate violence in a situation of armed conflict. In essence, international protection acts as a replacement for the protection that their home country is unable or unwilling to provide.	International protection status is granted to individuals who are unable or unwilling to return to their country of origin due to a well-founded fear of persecution based on race, religion, nationality, political opinion, or membership in a particular social group, qualifying them for refugee status; alternatively, those who do not meet the refugee criteria but would face serious harm—such as the death penalty, torture, or indiscriminate violence from armed conflict—may be eligible for subsidiary protection. This status is determined through legal frameworks like the 1951 Refugee Convention, EU directives, and national laws, and applies to both stateless persons and third-country nationals who meet these conditions.	International protection status is granted to individuals who cannot return to their home country because they face a real risk of serious harm or persecution. According to the 1951 Refugee Convention, a person qualifies for refugee status if they are outside their country of origin and have a well-founded fear of persecution based on race, religion, nationality, political opinion, or membership of a particular social group, and their government is unable or unwilling to protect them. Those who do not meet this definition but would face the death penalty, torture, or serious harm from indiscriminate violence in armed conflict may receive subsidiary protection. People who have committed serious crimes or acts against the principles of the United Nations are excluded. Some countries also offer temporary protection to groups fleeing mass conflict or disaster until conditions allow safe return.

3. Results

Table 2. *Comparison of responses.*

Question	Gemini Med [Q1-Q3]	Gemini Mean±sd	ChatGPT Med [Q1-Q3]	ChatGPT Mean±sd	CoPilot Med [Q1-Q3]	CoPilot Mean±sd	W	p
1. Who is granted international protection status?	4 [2-5]	3.8±1.3	5 [5-5]	5±0	4 [2-5]	3.8±1.1	0.463	0.099
2. What does complementary protection mean?	4 [2-5]	4±1.2	5 [5-5]	5±0	4 [2-4]	3.4±0.9	0.76	0.022
3. What is the principle of Non-Refoulement?	4 [3-5]	4.2±0.8	5 [4-5]	4.8±0.4	4 [3-5]	3.8±0.8	0.48	0.091
4. Can a person whose application for international protection is rejected be deported?	4 [3-5]	4.2±0.8	4 [3-5]	4.2±0.8	4 [3-5]	3.8±0.8	0.16	0.449
5. What acts of persecution are included in an international protection application?	5 [3-5]	4.4±0.9	5 [4-5]	4.6±0.5	4 [3-5]	3.8±0.8	0.35	0.174
6. Can protection be granted if persecution is caused by non-state actors?	5 [3-5]	4.6±0.9	5 [3-5]	4.4±0.9	4 [3-5]	3.8±0.8	0.467	0.097
7. Can a person who has fled their country for economic reasons receive international protection?	5 [4-5]	4.6±0.5	4 [4-5]	4.4±0.5	4 [3-5]	3.8±0.8	0.28	0.247

Table 2 (continued). *Comparison of responses.*

Question	Gemini Med [Q1-Q3]	Gemini Mean±sd	ChatGPT Med [Q1-Q3]	ChatGPT Mean±sd	CoPilot Med [Q1-Q3]	CoPilot Mean±sd	W	p
8. Is there a time limit for international protection?	5 [4-5]	4.8±0.4	5 [4-5]	4.6±0.5	4 [3-5]	3.8±0.8	0.52	0.074
9. Can international protection also be applied to family members?	4 [3-5]	4.2±0.8	5 [4-5]	4.6±0.5	4 [4-5]	4.2±0.4	0.108	0.584
10. What does the internal flight alternative mean?	4 [4-5]	4.4±0.5	4 [4-5]	4.4±0.5	4 [3-5]	4±0.7	0.16	0.449

UNHCR (2019) p = P value for the Friedman's test; W = Kendall's coefficient of concordance

The results obtained are presented in Table 2. There is no doubt that all artificial intelligence models can provide comprehensive and accurate answers to evaluators. When examining the scores given to the responses of the three models, it is seen that their median values generally range between 4 and 5. This shows that, in general, artificial intelligence chatbots produce accurate but not fully comprehensive responses. While ChatGPT achieved the highest scores across all questions, Gemini and Microsoft Copilot scored lower on some questions with less variance and a more moderate average. However, upon closer analysis, it is evident that not all artifical intelligence models demonstrated high accuracy rates for every question. For example, Gemini and Copilot had lower averages of 3.8 on some questions, indicating that the models may occasionally provide incomplete or superficial information when explaining legal concepts such as international protection.

When examining the results of the Friedman test, a significant difference between the models was only found in one question (what does complementary protection mean?). This indicates that the models' approaches clearly differ in how they interpret the complementary protection question in artificial intelligence chatbots. The fact that the test results were not significant for all other questions indicates that the answers provided by the models to the questions were mostly at a similar level of accuracy.

When Kendall's W test results are examined, it is observed that there is no statistically significant strong agreement among the evaluators for the majority of the questions. The only exception is the question 'What does complementary protection mean?', where a significant level of agreement was found (W=0.76, p=0.022). For the remaining questions, the lack of significant homogeneity indicates a notable level of divergence among evaluators regarding the conceptual accuracy of the answers given by the different artificial intelligence models. This general divergence may stem from the fact that many concepts within international protection law are open to interpretation and can be assessed in different ways in practice. It is highly probable that the assessors evaluated

these legal concepts according to their own perceptions and professional backgrounds. As in the study by Cohen et al. (2025), the fact that some questions lead to differences in interpretation can be explained by different types of diversity.

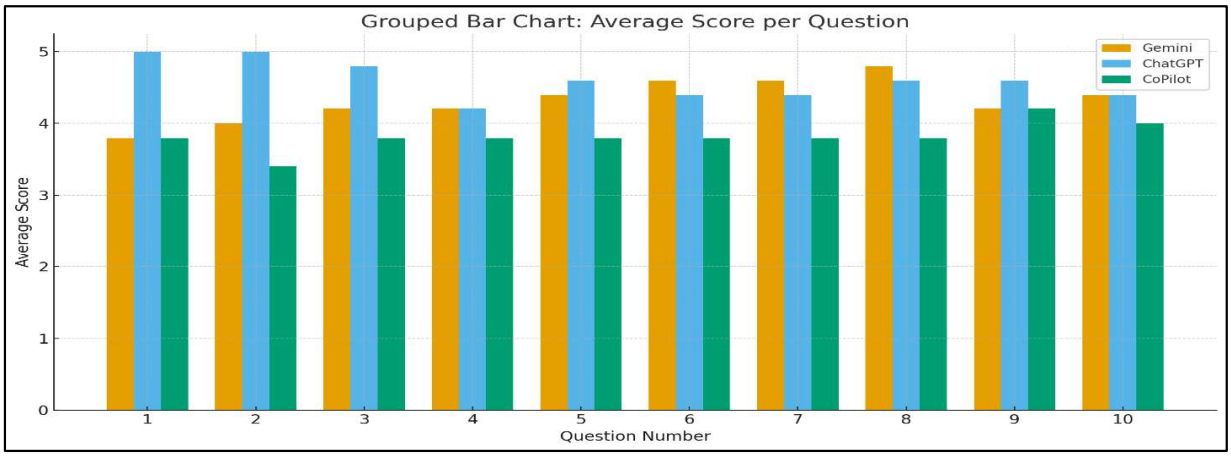

Figure 1. *Average Score For Each Model Per Question.*

Figure 1 shows that when examining the inadequacies of the responses provided by artificial intelligence models, it is observed that Microsoft Copilot and Gemini models fall short, particularly in explaining the contexts of concepts. For example, CoPilot's responses to questions were found to be more general in nature, which may have led to a lower score on a specific topic such as international protection.

4. Discussion

Due to the multidimensional nature of the concept of international protection, it is challenging for artificial intelligence chatbots to produce a completely accurate and comprehensive response. Although the response performance of artificial intelligence chatbots has been extensively studied and evaluated, particularly in the fields of medicine and physiotherapy, there are no studies comparing the response accuracy of artificial intelligence models in the field of international protection, which is one of the fundamental concepts of migration. Therefore, this study compares the performance of artificial intelligence models with a focus on the concept of international protection and addresses this gap in the literature.

This study revealed that evaluators differed on certain questions. This finding highlights that, although artificial intelligence chatbots emphasised in the literature can convey general principles on any subject, they are still inadequate in terms of evaluating details and providing comprehensive explanations (Cohen, et al., 2025).

The findings of this study clearly reveal the inconsistencies exhibited by artificial intelligence chatbots when explaining complex legal concepts such as international protection, as well as the low level of agreement among expert evaluators. While recent literature highlights the innovative solutions and support mechanisms generative AI can provide for refugees in areas like health, language, and integration (Jahani et al., 2024), relying on these tools for complex legal guidance poses significant risks. Contemporary studies examining the use of AI in migration and asylum systems warn that although these technologies have the potential to support administrative procedures, their implementation in Refugee Status Determination (RSD) processes without careful legal and human rights considerations could lead to biased decisions and undermine fundamental rights

(Amoroso, 2024; Memon et al., 2024). While the existing literature predominantly discusses the administrative role or ethical boundaries of AI in asylum processes at a theoretical level, this study fills a significant gap by experimentally demonstrating the conceptual limitations of AI chatbots in international protection law through the direct assessments of independent experts and specific statistical methods like Kendall's W test.

The inconsistencies observed in our study underscore the critical need for robust regulatory frameworks. For instance, the European Union's recently adopted Artificial Intelligence Act (AI Act) explicitly classifies AI systems used in migration, asylum, and border control as high-risk (European Parliament, 2024).

This study demonstrates that although artificial intelligence chatbots generate accurate information in the field of international protection, they provide information that is not entirely comprehensive. Although the accessibility of artificial intelligence chatbots is considered beneficial in terms of rapid learning of basic concepts, it has been observed that they can be incomplete and superficial, particularly in cases requiring legal interpretation and involving facts that are crucial to an individual's life. For these reasons, it has been concluded that they cannot replace expert opinions in cases involving individual appeals and processes within the field of international protection. The ethical implications of these findings must be evaluated through a rights-based approach. Facing barriers to professional legal counsel, vulnerable refugees may rely on free AI chatbots for critical information. This creates a dangerous 'information asymmetry,' as these users lack the legal literacy to verify AI-generated advice. Exposing them to misleading guidance on life-altering concepts like non-refoulement directly undermines their right to equitable access to justice.

5. Research Implications

This study demonstrates the need for further research into the extent to which artificial intelligence chatbots can accurately and effectively convey concepts, particularly in the field of migration. Given that artificial intelligence models are subject to continuous updating and the development of new systems, comparing different artificial intelligence models will be important in future studies. Furthermore, this study is based solely on the questions included in the Handbook on Procedures and Criteria for Determining Refugee Status and Guidelines on International Protection developed by the UNHCR. In this regard, the needs of real users with experience are considered an important area of investigation for future research. Another area that should be addressed is how the information migrants who have experienced this issue obtain from experts aligns with the information they obtain from artificial intelligence chatbots.

6. Conclusion

In this study, the accuracy, consistency, and scope of the responses generated by artificial intelligence-based language models regarding fundamental concepts and processes within the scope of international protection have been critically evaluated. The analyses revealed that these models demonstrated satisfactory performance in terminological definitions and static information transfer. However, when examining the contextual depth of the responses, it was determined that the information provided by the models was generally superficial and insufficient for resolving complex issues. Particularly in complex areas requiring normative knowledge, significant variations between models and information contamination that could be characterised as ‘artificial

intelligence hallucinations' were observed. This finding demonstrates that artificial intelligence chatbots can be positioned as an auxiliary tool that accelerates access to information in migration studies, but cannot replace expert judgement in individual processes with vital consequences, such as human rights and legal status determination. Consequently, the reliability of artificial intelligence in the field of international protection depends on its ability to adapt to dynamic legal processes rather than static data sets. In this regard, training algorithms in line with national and international legislative changes and more actively involving field experts in oversight mechanisms are essential for the ethical, legal, and migration standards-compliant use of the technology.

7. Declarations

Conflict of Interest: The authors declare that they have no conflict of interest.

Data Availability: The data that support the findings of this study are available from the corresponding author upon reasonable request.

Artificial Intelligence Usage: Generative AI chatbots were utilized exclusively as the subject of the research methodology to generate responses for evaluation.

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