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AI, Misinformation, and Trust in Higher Education: Information Literacy Approaches of University Librarians in Germany and Bulgaria

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Abstract:

This study aims to examine university librarians' perceptions of information literacy, misinformation, and trust in Higher Education Institutions in the context of artificial intelligence. New challenges for library users as generative AI tools become more prevalent in research, writing, summarising, citing, and learning: they must locate credible sources, evaluate for and against bias, verify citations generated by AI, and ensure they are accurate and ethically sound. The method used was qualitative research, and 14 participants were purposively selected for their experience in information literacy and AI-related information literacy services. Thematic analysis was used to analyze how libraries are integrating AI literacy. The findings indicate that German university libraries have well-defined, scalable implementation strategies, including workshops, LibGuides, doctoral training, and academic writing support. On the other hand, practices in Bulgarian libraries are developing but are not homogeneous, and they organize webinars, consultations, workshops on AI tools, and activities related to courses. In both settings, librarians identified verification, scholarly databases, transparency, academic integrity, privacy, copyright, and critical thinking as necessary measures to counter AI-powered misinformation. AI literacy is becoming a

component of information literacy, and university librarians are becoming important intermediaries in creating responsible, critical, and trust use of AI.

Keywords: Artificial intelligence; AI literacy; Information literacy; Misinformation; Trust

1. Introduction and Literature Background

Generative artificial intelligence (AI) is reshaping research practices, information acquisition, and access within higher education. Tools such as ChatGPT facilitate summarisation, writing, translation, information retrieval, and learning support, thereby creating new opportunities for academic work (Jabeen & Lux, 2026; Lo, 2023). However, these technologies also introduce challenges related to misinformation, bias, credibility, academic integrity, ethics, and trust. These challenges are intrinsically linked to information literacy, as students must evaluate the quality, reliability, and responsible use of information in academic contexts (Association of College and Research Libraries) [ACRL], 2016; Cox, 2023; Lo, 2024).

Academic libraries have long been responsible for educating users about information literacy. Librarians support students in searching databases, evaluating sources, utilising academic information, and applying citation practices. The Association of College and Research Libraries (ACRL) Framework highlights the importance of questioning authority, evaluating evidence, understanding information production, and using information ethically (ACRL, 2016). The emergence of generative artificial intelligence has increased the complexity of these skills. Students must now evaluate not only books, articles, and websites, but also AI-generated responses, summaries, and references.

A primary challenge is that AI-generated content may appear accurate even when it contains inaccuracies. Generative AI can generate coherent answers that include unverifiable claims or falsified references. Students should use scholarly databases to ensure outputs and to confirm the validity of sources, as well as to engage in critical thinking to solve this problem. This is consistent with the ACRL Framework, which focuses on evaluating authority, evidence, information production, and ethical information use (ACRL, 2016). Students are already struggling with environments of unverified information, and generative AI raises concerns about trust and credibility (Head et al., 2020; Lloyd, 2019). Librarians must therefore gain new AI skills to help them assist students in critically and responsibly assessing AI products (Cox, 2023; Cox & Mazumdar, 2024; Lo, 2024).

The reliability of AI-generated content, including what is true, what is missing, or what is misinformed, is a focal point in learning and research with AI. While LLMs can be used for searching, writing, and summarizing, they can also hallucinate information, fabricate references, or provide misleading information (Adel & Alani, 2025; Formanek, 2025; Fu & Yang, 2023). Moreover, students need to enhance their ability to verify supporting evidence for AI-generated statements, verify the authenticity of citations, assess potential bias, and evaluate the ethical implications of AI use. Critical AI literacy extends from information literacy, equipping students to evaluate credibility, detect misinformation and bias, and ensure transparency and responsible use within AI-based

information environments (Archambault et al., 2024; Bridges et al., 2025; Dover & Grzegorski, 2025).

The university librarians can play an important role in this transformation through their current portfolio, which includes the evaluation of sources, the promotion of academic honesty and appropriate information use, and support for research and user education. The increasing adoption of AI tools in academic settings puts greater pressure on librarians to support their students in active rather than passive engagement with these tools. Recent studies have shown that AI is revolutionising library services, including reference services, teaching information literacy, research assistance, and user training (Cox et al., 2019; Fu & Yang, 2023; Igwe & Sulyman, 2022; Jabeen, 2025; Jha, 2023). Hence, it is quite important for librarians to have practical knowledge of AI to help users understand the pros and cons of AI tools and to be aware of its implications, including trust, bias, misinformation, copyright, citation, and ethical issues (Berkowitz, 2025; Cox, 2023; Cox & Mazumdar, 2024).

Recent research in Library and Information Science (LIS) shows that most professionals focus on the importance and use of artificial intelligence (AI) in academic libraries. Still, there is less focus on formulating AI policies, frameworks, ethical guidelines, and strategic instructions for libraries (Ali & Richardson, 2025; Bridges et al., 2025; Guan, 2025; Huang, 2024). Additionally, scholars highlight the importance of developing critical AI literacies among students, particularly the ability to critique AI-generated outputs, identify associated risks, and anticipate future applications of AI in educational and research contexts (Bubinger & Dinneen, 2024; Dover & Grzegorski, 2025). Similarly, research concerning librarians and researchers indicates a growing demand for AI literacy support across academic, health, and scientific environments (Alam et al., 2024; Dieltiens et al., 2025; Elsayed & Abusharhah, 2025).

2. Research Gap

Although recent studies have examined AI literacy frameworks in academic libraries, librarians' perceptions of AI use, and competency frameworks for AI literacy, the specific challenges of misinformation and trust in AI within higher education remain underexplored. While research has addressed AI adoption and related perceptions in academic libraries, there is comparatively less focus on misinformation and trust in AI in the higher education context. The increasing use of AI tools by students for searching, writing, learning, and decision-making has heightened expectations for university librarians to support students' information access and critical evaluation of AI-generated content (Head et al., 2020; Lloyd, 2019). Despite this trend, limited research investigates how librarians instruct students to assess the credibility, bias, transparency, ethical risks, and trustworthiness of AI tools and outputs in routine information literacy practice. Furthermore, evidence from higher education contexts in other European countries is scarce. This study addresses this gap by examining perceptions of AI, attitudes toward misinformation, and trust issues, as well as the integration of these concerns into the teaching, training, and support provided to users in universities in Germany and Bulgaria.

Objectives of the study

The study has two objectives:

1. To examine German and Bulgarian university librarians' understanding of artificial intelligence and its integration into information literacy practices within library teaching, training, and user support.
2. To interpret how university librarians in Germany and Bulgaria facilitate students' critical thinking regarding artificial intelligence tools and outputs, with a focus on misinformation, bias, credibility, ethics, and trust.
3. Methodology

2.1 Research Design

This study employs a qualitative method to explore the viewpoint of German and Bulgarian universities within their respective higher education systems. Respondents were university librarians who had sufficient experience with the AI integration in information literacy services. It delves into the conceptualization of AI and how it affects students' critical interactions with technology in learning environments. The qualitative approach allows the researcher to gain a deeper understanding of librarians' experiences, perceptions, AI literacy, misinformation, credibility, ethics, trust, and professional practices. The study does not measure predefined variables; instead, it will provide deeper insight into AI integration in familiarity with information literacy skills and concepts across various university library contexts.

2.2 Interview Technique: Semi-Structured Approach

Interviews were the primary method of data collection, using a semi-structured approach. This allowed participants to define their opinions and answer guiding questions. Semi-structured interviews are useful in educational and institutional contexts for discussing emergent issues and integrating examples not anticipated in the pre-designed interview questions (Hill & Knox, 2021). In this study, detailed qualitative data were collected through interviews to better understand librarians' roles in AI-based information literacy services.

2.3 Sample Selection and Study Population

The population comprised German and Bulgarian university librarians who are engaged in information literacy teaching, user education, research support, or the implementation of AI technology in university libraries. Participants were selected purposively from those directly engaged in AI literacy and related services. A search of university websites in both countries was conducted to determine which universities offered information literacy services, AI training, digital research services, AI tools, LibGuides, workshops, or other user support services in their university libraries. Librarians who provide these services were invited to participate and share their insights. The study comprised 14 university librarians – 7 from Germany and 7 from Bulgaria. The participants were selected based on their expertise and knowledge of implementing AI tools in library instruction and user support.

2.4 Interview Guide

The semi-structured interview guide was designed to cover relevant themes and subthemes. An open discussion was encouraged to uncover the facts regarding the integration of AI into information literacy and the use of AI tools in library services and sources. Specific emphasis on the key issues such as misinformation, hallucinated references, bias, credibility, ethics, transparency, privacy, and trust. The interview guide and consent form were sent to all respondents via email prior to the interviews.

2.5 Expert Review and Pilot

The interview guide was pretested by subject experts in Library and Information Science to enhance question clarity and ensure alignment with the study objectives. Three interviews were conducted with library professionals in academic libraries regarding information literacy. Later on, those professionals could not consider the actual data. Based on pilot testing, the wording, sequence, length, and recording process were revised. Minor modifications were incorporated into the final version of the guide.

2.6 Data Collection Procedure

Participants were contacted by email and briefed about the main aim of the study. Participants were informed that their responses would be kept confidential prior to each interview and would be used only for research purposes. The participants were contacted via official email and interviewed online via Zoom link. Interviews were conducted and recorded with permission for transcription and analysis. The interviews lasted approximately 30-40 minutes, and notes were taken to provide context and add further observations.

2.7 Data Analysis

The interview data were analysed using the qualitative method of thematic analysis, appropriate for identifying and interpreting patterns in qualitative research. The analysis was accomplished in accordance with the six phases suggested by Braun and Clarke (2006): familiarisation, initial coding, theme identification, theme review, theme definition and naming and reporting of findings. Transcripts were analysed several times, then systematically coded and arranged into themes and subthemes related to the research objectives. The data were organised, coded, and visualised in MAXQDA and Canva.

2.8 Ethical Considerations

The most important ethical issues that arose during the study were fully considered. All participants were asked to volunteer, and informed consent was obtained in writing from each. The respondents were anonymized using country codes (German: G1–G7; Bulgarian: B1–B7). Only anonymous quotes and summarised findings are reported in the paper.

3. Results Section

The findings are presented according to the objectives of the study: Information literacy programs and services; universities' awareness of the role of artificial intelligence (AI) in information literacy education; and institutional support for students in critically assessing the use of artificial intelligence (AI) and its impact on information literacy in Germany and Bulgaria. The results are based on interviews with 14 university librarians, 7 from each country.

3.1. Integration of Information Literacy into Library Teaching, Training, and User Support

Information literacy has always been a fundamental goal of academic libraries, especially through user education, database training, research assistance, and guidance on scholarly information use (Jabeen et al., 2016). With the advent of Artificial Intelligence, this function has grown to include harnessing AI to streamline search, writing, and research processes, in addition to finding and evaluating information (Jabeen & Lux, 2026). The integration of AI into library services presents both opportunities and challenges for teaching, training, and user support, particularly regarding accuracy, critical evaluation, and responsible use (Hussain, 2023).

AI literacy is increasingly integrated into existing information literacy services in university libraries in Germany and Bulgaria; however, it has not yet been established as a distinct service area (see Table 1). In Germany, university librarians promote AI integration by offering workshops on literature search, data literacy, metadata awareness, reference management, and doctoral training, with particular emphasis on publication writing. Figure 1 illustrates that the most significant developments occur in teaching and training, user support, and service integration within German university libraries.

In Bulgaria, integrating AI literacy with existing information literacy services includes database instruction, scientific writing and publishing, bibliography assistance, citation support, consultations, and training for research assistants (Table 1). However, consistency cannot be seen; a few institutes take the initiative to run provider-led webinars, LibGuides, and consultations, while others are engaged with s Consensus AI workshops and activities linked to courses. This variation is reflected in figure 1, which shows moderate development in Bulgaria across most fields, along with relatively low levels of service integration.

In both countries, AI literacy is primarily associated with the user support services that libraries provide for research, writing, citation, evaluation, and information retrieval. Table 1 and Figure 1 demonstrate that Germany has implemented a more developed, large-scale approach to integration, while Bulgaria's approach remains less formalised but is progressing, with variation from initial awareness to more advanced integration through specific tools. These findings indicate that AI literacy is emerging as a component of information literacy, and libraries are adapting their instructional and support strategies to address AI-related needs.

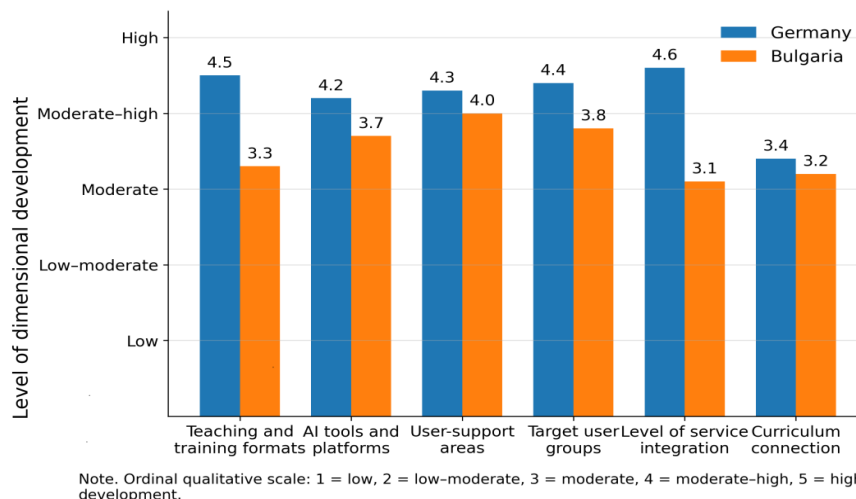


Figure:1 Comparative development of AI-literacy services across library-service dimensions in Germany and Bulgaria.

3.2 Supporting Students' Critical Engagement with AI Outputs: Misinformation, Verification, and Trust

University libraries have broadened their support for students' engagement with artificial intelligence (AI) tools and outputs within information literacy initiatives. The ACRL Framework highlights the necessity for students to question authority, make evidence-based decisions, understand information production processes, and recognize the broader context of information dissemination (Association of College and Research Libraries, 2016). Within the context of generative AI, these competencies now encompass the identification of misinformation, bias, hallucinated references, unsupported claims, ethical risks, privacy concerns, and trust-related issues. As reliance on AI-generated content and algorithmic outputs increases, librarians are expected to assist in evaluating these resources alongside traditional information sources. As a result, information literacy now includes AI and opaque or "black box" information environments (Head et al., 2020; Lloyd, 2019, Bradley.,2022). Academic librarians must therefore acquire AI-related competencies to provide responsible support for students' information needs (Cox, 2023; Cox & Mazumdar, 2024; Lo, 2024).



Figure 2: AI misinformation, verification, and trust support in German and Bulgarian university libraries

Table 1: AI integration into information literacy practice: from awareness to structured service models

Dimension	Germany	Bulgaria	Related quotation	Key insight
Teaching and training formats	The integration of AI in IL services is most often implemented through literature-search workshops, self-study AI courses, prompting modules, doctoral workshops, academic-writing support, and course-integrated sessions.	AI support is delivered via provider webinars, LibGuides, consultations, online tutorials, and Consensus AI workshops, and is available as either a voluntary or credit-based option.	"Mostly, we used AI for literature search workshops, open courses, targeted seminar sessions, doctoral training days, and self-study materials, which constitute the primary methods of AI integration" (G1, G7, G5). "Library is offering Consensus AI workshops for around six months, with each session lasting about 1–1.5 hours" (B5, B7, B3).	Germany offers more organised and scalable teaching formats. In Bulgaria, teaching formats are mixed but developing, with some strong examples of workshop-based approaches.
Use of AI tools and platforms.	German librarians discussed utilizing ChatGPT Edu, prompting tools, the Citavi AI Assistant, and making comparisons with Semantic Scholar. They also employ Academic Cloud/ChatAI and other AI tools to support literature searches and writing assistance.	Bulgarian librarians provide IL sessions through Consensus AI, the Web of Science AI Research Assistant, EBSCO's natural-language search, ProQuest Research Assistant, Scite AI, LeapSpace, and website chatbots.	The library plans to offer structured online self-study courses on ChatGPT Edu and generative AI, covering their functionalities and critical considerations for use (G2). AI is also referenced in the context of scientific writing and publishing, with tools such as the Web of Science AI Research Assistant, LeapSpace, and Scite AI being highlighted (B7, B1).	While both countries are transitioning from general to tool-specific guidance, Germany demonstrates a greater emphasis on the methods and approaches used in training.
User-support areas	AI literacy encompasses literature searching, database literacy, metadata awareness, academic writing, reference management, research support, and publication support.	AI support comprises instruction on database use and scientific writing and publication, assistance with bibliographies and citations, research consultations, and training for AI research assistants.	"AI is only really useful when it is supported by good database and metadata literacy" (G3, G5). "Each user group has a customised training, supporting bibliography and research work" (B5, B2).	In both countries, AI literacy is not distinct from information literacy and is included in the current support for searching, writing, citing, and researching.
Target user groups	German AI-literacy German activities promoting AI literacy are aimed at bachelor's, master's, doctoral students, researchers, academic staff, and, in some cases, library staff.	Bulgarian services are provided to undergraduates, graduates, doctoral students, researchers, faculty and users who attend voluntary sessions.	For master's, doctoral, and academic staff users, advanced AI search support is provided, and for bachelor's students, basic concepts of databases and scholarly communication are provided first (G1). The users are: "upper-level undergraduates, graduating students, doctoral students and faculty" (B5).	Both countries distinguish between levels of users' support for AI, although Germany is more explicit in specifying novices and experts.
Level of service integration	Germany introduced operational workshop models, formalised self-study ecosystems, embedded database-first models, multi-format voluntary training, and partial-credit courses by working librarians.	Bulgaria exhibits varying levels of formal AI literacy, ranging from no initiatives to provider-led awareness, embedded AI and disinformation guides, licensed AI tools workshops, research support training, and voluntary course-linked models.	AI literacy is emerging as a library service that can be delivered as a structured, scalable online offering through AI modules and prompting instructions (G2, G4, G7). University libraries in Bulgaria employ diverse approaches to AI integration, including informal AI literacy instruction in curricula, licensed Consensus AI workshops, and AI or disinformation LibGuides (B1, B2, B5).	Germany adopts a more formal approach, while Bulgaria demonstrates a wider spectrum of awareness and readiness, from early-stage to innovative practices.
Curriculum integration	AI literacy is frequently offered as an optional or requested component, with opportunities for partial integration into curricula and the potential for academic credit.	AI-related information literacy is incorporated into voluntary workshops, seminars, consultations, and certain required or elective courses.	In some cases, such as in programme G7, three credit points are awarded for an introductory AI course within a flexible minor. In programme B7, AI-related information literacy practices are included in both mandatory and elective credit-bearing BSc and MSc courses, and are also available as optional components in online seminars and workshops.	Both countries are developing curriculum integration; however, a fully institutionalised, library-based AI literacy program has not yet been established.

The thematic visualization in Figure 2 differs from a statistical word cloud in that each term is sized according to its relative prominence across the seven interviews conducted in each country. The analysis is organized into three panels: misinformation and hallucination; verification and bias awareness; and ethical, privacy, copyright, and responsible trust. Figure 2 indicates that verification is considered the primary strategy for addressing AI-generated misinformation and fostering trust among German and Bulgarian university librarians. Germany can be seen as more systematic, focused, and consistent, with an institutional approach in this regard. German librarians associate terms such as misinformation, hallucination, bias, credibility, GDPR, copyright, and transparency with structured instructional methods, including comparing information in databases, disclosing AI usage, evaluating tools, and conducting responsible academic work.

Librarians in Germany primarily identified hallucinated references, excessive reliance on AI-generated responses, and inadequate verification practices.

“For instance, one respondent noted that students occasionally present AI-generated sources that do not exist” (G2).

This indicates that hallucination is not solely a technical issue; it also raises concerns about the credibility of the processes of searching, citing, and referencing in academic writing.

“Another respondent expressed concern that students may copy from ChatGPT “before they think” (G6)

This emphasizes the need for students to critically review their work rather than accept AI-generated text uncritically. In this context, trust in AI was described as “conditional” rather than automatic.

“Many participants emphasize the need to verify AI-generated content against scholarly databases, original sources, and established academic standards before integrating it into student assignments (G2, G6, G7).

German librarians also associated credibility and trust with transparency, ethical considerations, and academic responsibility.

“Another participant stated that students should “disclose where and why AI was used” (G4).

This suggests a correlation between responsible AI use and both verifying the accuracy of outputs and clarifying the purpose of AI within the research or writing process.

“Several respondents observed that AI tools are neither neutral nor self-validating, particularly due to the potential for bias, privacy concerns, and inaccurate claims in their outputs” (G1, G5).

The Bulgarian cases are less uniform but are very practice-oriented. Librarians have tended to focus on fact-checking, source comparison, academic integrity, GDPR,

copyright, and peer-reviewed resources rather than on broader institutional frameworks.

“One Bulgarian librarian linked the library's AI literacy role to preventing misinformation (B2), noting that the library is responsible for verifying whether “AI-produced citations are real.”

Another stressed that “AI cannot replace critical thinking or fact-checking, and that trust should be based on user competency rather than AI performance” (B4).

“I can explain that the purpose of using ChatGPT is to provide insight that database data is more credible, unbiased, and accurate than AI-generated data. We are using a comparative analysis of database-based and AI-generated data” (B7).

Overall, these findings indicated that Germany is better equipped and has taken policy-driven initiatives regarding AI literacy. On the other hand, Bulgaria, although it has started AI integration, is at an early, uneven stage and is working on verification, academic integrity, privacy, copyright use, and responsible AI.

4. Discussion

The present study examines how university librarians in Germany and Bulgaria address AI, misinformation and the trust in higher education from an information literacy perspective. Results indicate librarians' viewpoints from both countries on AI literacy as part of their current responsibilities. AI literacy is considered part of information literacy as its extension, not as a new technical service. The main AI assistance functions are skills-oriented in literature searching, database use, academic writing, citations, and source evaluation. The findings of the present study align fully with recent research indicating that AI is becoming the central focus of instruction and user experience in IL programs across academic libraries in both countries. Information has become a primary target for this technology. Particularly as learners increasingly use generative AI tools for research and information gathering (Lo, 2025; Guan, 2025; Jabeen & Lux, 2026).

Objective 1 shows that German university librarians are more proactive and better equipped to implement information literacy services using AI. Interviews reveal a systematic approach to AI literacy, from the creation of AI-themed LibGuides to literature search workshops, self-study sessions and prompt sessions, doctoral programs and academic writing support, and embedding AI literacy in other information literacy programs. It indicates a transitional phase in the use of AI in German libraries towards more structured teaching and learning and highlights the need for library staff's abilities, the institutions' readiness, and professional support for AI services in academic libraries (Cox, 2023; Kautonen & Gasparini, 2024; Jabeen, 2025). Bulgarian university libraries recognize the value of AI in information literacy, but its use remains uneven. The study revealed that information literacy skills can be infused into credit-bearing classes, workshops, lectures, online tutorials, and other library activities (Jabeen et al., 2016). A number of Bulgarian librarians have undertaken successful projects: Consensus AI workshops, webinars led by the provider, LibGuides,

consultations, and various activities related to courses. However, they are not necessarily institutionalized or established by institutional requirements; instead, they depend on individual initiative, available tools, or training. It shows that AI literacy is already established in Bulgaria, but there is a dire need to implement institutional strategies, design specific training materials, and integrate AI into information literacy courses.

The results added to the existing discussion on "generative AI in academic libraries," demonstrating that trust in AI-generated information is not a straightforward matter of access or usability, but a multifaceted process involving verification, ethical considerations, source evaluation, and institutional accountability (Jabeen, 2026). While librarians in Germany and Bulgaria agreed that AI tools are valuable for academic research, their responses showed a cautious, critical approach to their use. This caution is valid because AI tools can draw students in with their efficiency, user-friendliness, and ability to provide coherent, natural-language answers (Adel & Alani, 2025). However, being fluent does not guarantee accuracy. Errors in content, such as misinformation, hallucinations, fabricate citations, or inaccurate explanations, indicate that AI can sometimes produce content that appears credible despite being incorrect or lacking scholarly rigor (Formanek, 2025). The comparison also indicates that there are shared associations between trust and verification among librarians across countries; however, they view them through different lenses. Librarians from Germany highlighted the importance of verification-based approaches, such as transparency, awareness of databases, verification of citations, metadata quality, GDPR compliance, and responsible use of AI. Bulgarian librarians, on the other hand, emphasized fact-checking, peer-reviewed sources, source comparison, copyright protection, privacy, academic integrity, and responsible use. These differences are not indications of disagreement but rather complementary ways of establishing responsible trust in the use of AI in academic work. These concerns are raised by more recent research, which has shown the potential for generative AI to assist and augment academic scholarship, but also to lead to false citations and incorrect, unverified, or biased explanations (Fu & Yang, 2023; Lo, 2023; Jabeen, 2025).

The results of this study highlight the importance of university librarians as key players in building trust in AI learning environments. Librarians not only incorporate AI tools into their users' workflows but also verify results, evaluate credibility, detect bias, address ethical issues, and encourage responsible AI use. Such findings align with recent studies on critical AI literacy, which call for integrating critical thinking skills into teaching and learning to help students question and reflect on the societal, ethical, and academic impacts of AI-generated content (Bridges et al., 2025; Bubinger & Dinneen, 2024; Dover & Grzegorski, 2025). Comparing Germany and Bulgaria, one can see differences in the formalization and comprehensiveness of AI literacy: in Germany, it is more formalized and comprehensive, while in Bulgaria, it is less operationalized and still in development. The integrating elements of the German university library model, based on structured AI LibGuides, self-study modules, targeted training, policy support, and staff development initiatives, could be a useful addition to the Bulgarian approach.

5. Conclusion and Future Work

AI literacy is emerging as an important facet of information literacy and is considered a critical skill for university libraries. In Germany, for instance, librarians are already

using AI tools to enhance literature searching, source appraisal, academic writing assistance, citation, and user training in several fundamental areas of librarianship. These AI-related practices should be explicitly included in future information literacy instruction as an integral part, not as separate activities. One of the most important results of the study is the critical role librarians play in supporting users' critical thinking during learning with AI. Students should assess AI-generated information critically and be aware that it may be inaccurate, biased, contain incorrect references, be sourced ambiguously, or be completely false. Librarians need to advocate for responsible, ethical AI practices and prompt students to assess the quality of AI-generated information by consulting authoritative databases and primary sources. Thus, AI literacy encompasses more than the operational use of AI tools; it requires the critical evaluation, comparison, and assessment of information. The findings indicate considerable potential to further strengthen AI literacy in Germany and Bulgaria, and suggest that current AI practices could be further developed. Ongoing assessment and integration into information literacy programmes provide German university libraries with avenues to further structure their initiatives. The incorporation of AI guidance into regular library instruction can be improved, while Bulgarian university libraries may strengthen their practice-based initiatives by standardising guidance information. In both contexts, the primary objective is to support students in becoming critical, responsible, and reflective consumers of AI-generated information.

Moving forward, it is crucial that university librarians continue to advance their role in the age of AI, especially by helping users navigate the ethical, responsible, and critical use of AI-generated information. More research is needed on how to encourage clear policy guidance within the institution, GDPR compliance, staff training, and university awareness of AI literacy in libraries. Greater focus should be placed on technological infrastructure, access to approved AI tools, data privacy practices, and institutional readiness to sustain AI literacy provision in HE libraries.

6. Limitation

The results of this study are restricted to 14 university librarians from Germany and Bulgaria, and cannot be extrapolated to other university libraries in either country. Qualitative research, however, creates an in-depth understanding of librarians' perception, practices, and challenges in the context of AI literacy, misinformation, and trust in higher education. Further studies might consider a larger sample, more European countries, and input from students and faculty.

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