

GenAI in Higher Education: Perceived Benefits and Risks and Their Implications for KM and Trust

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Abstract: As artificial intelligence (AI), especially Generative AI (GenAI), becomes more ubiquitous, its adoption in higher education requires the critical review of all knowledge management (KM) processes, likely transforming how individuals create, acquire, share, transfer, and retain knowledge. As such, the use of GenAI in higher education poses significant benefits but also entails noteworthy risks. Key benefits encompass enhanced academic support, an increase in productivity, innovative pedagogical approaches, tailored learning experiences, and improved student engagement, all of which facilitate more effective knowledge creation and transfer. GenAI tools are also recognized for their ability to act as tutors, assist with the writing of assignments, aid with research, or take on creative, developmental, or administrative tasks. These tools facilitate knowledge acquisition and retention while broadening access to educational resources which theoretically improve learning outcomes. However, these technologies also bear considerable risks that can undermine trust in GenAI technologies, which is crucial for their responsible and sustainable use in higher educational settings. Some cited examples of risks include academic dishonesty, ethical concerns, data privacy issues, misinformation, hallucinations, and over-reliance on AI tools, which can be argued to lead to the decline of critical thinking, social engagement, and the ability to support sustainable KM practices. When higher education institutions lack structured approaches or guidelines for the use of GenAI among their instructors, students, and staff, potential benefits may not be leveraged, and risks may worsen if they go unmonitored. As such, a thorough understanding of the benefits and risks associated with GenAI use is critical to promoting its responsible use in higher education, as well as to developing trust in it, as ethical standards, transparency, and responsible implementation are critical to ensuring constructive engagement. Since an understanding of these benefits and risks currently remains fragmented and constrained in scope, the main objective of this paper is to identify and analyze the perceived benefits and risks of GenAI use in higher education. The overarching goal being to foster trustworthiness in the technology, and trust in the use of these systems. This paper is intended to provide help to higher education institutions seeking to take advantage of the transformative potential of GenAI in a way that leverages benefits, mitigates risks, and fosters trust in these systems.

Keywords: GenAI, Perceived benefits, Risks, Trust, Higher education

1. Introduction

Generative AI (GenAI) has profoundly transformed knowledge management (KM) processes within higher education institutions (HEIs), reshaping how knowledge is created, organized, and shared (Sousa & Cardoso, 2025; Vrågård et al., 2024; Symeou et al., 2025). This transformation is evident in tools such as ChatGPT, which are increasingly being integrated into faculty development and student learning. According to Van Duy and Khoa (2025), there is a need for an investigation of the emerging GenAI technologies (such as personalized learning systems and advanced analytics) and their effects on KM and educational outcomes. Bencsik et al. (2026) further argue that gaps exist in understanding how GenAI impacts KM processes beyond student perceptions, especially regarding knowledge creation, sharing, and application. Moreover, research is needed to explore the integration of GenAI in broader educational systems, including diverse stakeholder views, and context-sensitive studies to better assess GenAI benefits and risks in HEIs. With this rapid adoption of GenAI into HEIs, it is essential that the integration of the technology is critically informed, ethically grounded, and context specific. In addressing these gaps, it is important to equally identify the perceived benefits and risks associated with GenAI, from both the perspective of students and instructors, as these will go a long way to aid in understanding the influence that emerging GenAI technologies have on KM and educational outcomes.

The objective of this paper is to explore GenAI and its role in HEIs, particularly from the perspective of students, educators, and researchers. This is done by identifying commonly cited benefits and risks of the technology's use in HEIs, followed by a discussion of some of the implications for KM processes and trust.

2. Benefits of GenAI in Higher Education Institutions (HEI)

As with most industries today, GenAI has made an impact on KM processes in HEIs so profoundly that its transformation cannot be ignored. Tools powered by advanced GenAI, including ChatGPT, Copilot, and Gemini, have enabled the reinvention of how knowledge is produced, organized, and shared (Sousa & Cardoso, 2025; Vrågård et al., 2024; Symeou et al., 2025). They have also demonstrated the potential to provide autonomous access to vast stocks of knowledge, simplify information retrieval, and foster personalized forms of learning. For example, students incorporate GenAI tools in concept identification/definition, information summarization, idea generation and refinement, which are essential to academic knowledge creation and organization (Sousa & Cardoso, 2025). With GenAI's assisting capabilities, academic learning processes can be enhanced by providing customized feedback, explaining complex ideas, and personalizing educational resources. Moreover, technologies, such as Fullpicture, provide concise summaries of academic texts, lightening the cognitive load on students, giving rise to a more reflexive reading practice (Lin et al. 2025).

Another significant benefit of GenAI is that it helps increase access to educational resources for all students, and in particular underrepresented and diverse student populations. GenAI tools provide 24/7 accessibility, multilingual support, and available learning resources. This is especially important for students with disabilities, non-native English speakers, and those located in off-the-grid or resource-constrained environments (Krause et al., 2025; Rudolph et al., 2024; Abbi et al., 2025). Features such as text-to-speech/speech-to-text, language translation, and adaptive content creation enhance inclusivity in education (den Hollander et al., 2025; Nikolopoulou, 2024; Rudolph et al., 2024). GenAI democratizes access to high-quality non-formal education and thus complements global efforts, such as the United Nations Goal 4 for Sustainable Development, to ensure inclusive and equitable quality education (den Hollander et al., 2025; Al-Emran et al., 2025; Kurtz et al., 2024).

Moreover, GenAI has the potential to improve personalized learning experiences for students by adapting educational materials based on their specific needs, learning styles, and pace of learning. Tools like ChatGPT, and other Large Language Models (LLMs), offer students personalized study materials, and strategies for adaptive learning to help them focus on the areas they need to improve upon (Cordero et al., 2024; Sallam et al., 2024; Abbi et al., 2025). This individualized learning method may not only promotes understanding but also enable students to take better control of their own educational path by encouraging self-regulation and autonomy (Kurtz et al., 2024; Qian, 2025). This also has benefits for educators as it increases student involvement and enhances academic performance (Doğan et al., 2025; Vrågård et al., 2024; Rudolph et al., 2024).

With respect to educators, GenAI provides a scope to better teaching practices and minimize workload. By automating everyday tasks (e.g., grading, lesson planning, resource generation), GenAI has the potential to free up educators to focus on other academic activities that have a greater impact on learning, such as personalized instruction and mentoring (Rudolph et al., 2024; Cordero et al., 2024; Abbi et al., 2025). GenAI is now commonly used to automate repetitive administrative tasks in HEIs. For example, platforms like Grammarly Go, Turnitin AI Detection, and Gradescope automate grading, scheduling tasks, and provide personalized feedback (Sousa & Cardoso, 2025). Furthermore, GenAI chatbots help with repetitive tasks like writing Emails and preparing for travel (León-Domínguez, 2024).

Wong et al. (2025) found that these technologies can also successfully assist educators with assignment preparation, content inspiration, providing constructive feedback, and serving as reference materials. GenAI has the potential to improve educational quality and student participation by aiding in the creation of more effective teaching resources, more dynamic tutorials, and personalized evaluations (Baig & Yadegaridehkordi, 2025; Nikolopoulou, 2024; Wang, 2023). For example, educators can track student data over time, to recognize patterns in their learning, which not only allows them to track student growth but also provides signals for when early interventions and/or personalized academic support may be needed (Kurtz et al., 2024; Rudolph et al., 2024; Abbi et al., 2025).

GenAI may also facilitate better learning by promoting critical thinking, creativity, and problem-solving. These technologies have the potential to foster deep engagement with course concepts, promote critical analysis of intricate ideas, and build more sophisticated cognitive skills through interactive and adaptive learning experiences (Weng et al., 2024; Qian, 2025; Girón et al., 2024). For example, using tools like ChatGPT and Gemini in pedagogy has been found to be specifically useful for innovative pedagogical approaches involving maker learning or design thinking (Chiu, 2024; Cordero et al., 2024). Furthermore, GenAI has the capability to promote knowledge co-creation and active student involvement, preparing learners for necessary skills in the AI-powered workforce of the future (Kurtz et al., 2024; Jin et al., 2025; Abbi et al., 2025).

Within the larger HEI research landscape, GenAI drastically improves efficiency and productivity through the automation of time-intensive tasks like literature reviews, data synthesis, data analysis, and hypothesis generation (Miller, 2024; Rudolph et al., 2024; Schön et al., 2025). Platforms like Elicit and Scite.ai assist researchers, instructors, and students by facilitating searches of academic literature, summarizing research findings into concise summaries, and proposing data-informed hypotheses (Sousa & Cardoso, 2025). These tools help researchers work through volumes of information, find patterns, and synthesize data, which enables them to concentrate on higher-order cognition like critical evaluation and innovation (Symeou et al., 2025; Rudolph et al., 2024; Schön et al., 2025). Moreover, some tools, such as Fullpicture, can offer novel approaches to academic writing by proposing research paths and conducting content analysis (Lin et al., 2025). GenAI is also beneficial in academic writing by assisting with grammar and coherence, which has been found to contribute to enhancing communication and analytical skills (O'Dea, 2024; Kim et al., 2025; Cordero et al., 2024). GitHub Copilot can even assist with programming-related tasks by interpreting code, and by assisting in learning new programming languages (Vrågård et al., 2024). In addition, GenAI helps to break research language barriers by translating academic texts, breaking down complex scientific content (Schön et al. 2025), assisting with editing, formatting citations, and managing references (Kurdi et al., 2025).

The opportunities GenAI holds within higher education are wide-spanning and not yet fully known. Thus, there is a need to explore GenAI benefits and risks in the HEI context more in-depth. With the increase in GenAI adoption, its potential for transforming education cannot be overstated. It will have the opportunity to help prepare students for a technology-based future while also ensuring that education is inclusive and fair (Doğan et al., 2025; Vrågård et al., 2024; Qian, 2025; Rudolph et al., 2024; Cordero et al., 2024; Schön et al., 2025; Abbi et al., 2025).

3. Risks Associated with GenAI in Higher Education Institutions (HEI)

Alongside the above-mentioned benefits of GenAI, there are also considerable risks that require further exploration. GenAI poses serious risks to HEIs, particularly regarding academic integrity, ethics, and the reliability of AI-generated content. Perhaps the most cited concern is that of academic dishonesty. GenAI, including ChatGPT, is designed to generate outputs that have the potential to fulfill student academic requirements (e.g., essays, exams answers, etc.) without requiring genuine intellectual engagement from students. Thus, this is one commonly mentioned way through which plagiarism and cheating take place (Lodge et al., 2023; O'Dea, 2024; Rudolph et al., 2024; Jin et al., 2025). This not only makes it difficult for HEIs to authenticate student work, but also challenges traditional modes of assessment, which are not widely designed to detect AI-generated content (O'Dea, 2024; Wong et al., 2025). Such risks are only compounded in the absence of clearly articulated institutional policies, guidelines, and frameworks that define ethical boundaries on GenAI use (Simaremare et al., 2024; Kurdi et al., 2025).

Over-reliance on GenAI tools is another important risk, as it stifles the development of skills like critical thinking and creativity (Nidhisree et al., 2024; Andrae, 2025). Research suggests that students who develop a reliance on AI-generated solutions are more prone to intellectual laziness and diminished cognitive engagement (Weng et al., 2024; Qian, 2025; Rudolph et al., 2024). In this context, GenAI dependence may lead to shallow processing of academic material and deprive students of the necessary iterative processes for in-depth understanding and knowledge formation (Shata & Hartley, 2025; Qian, 2025). This type of dependency not only impacts individual learning outcomes but also raises long-term consequences related to the development of a student's foundational skills, and, more broadly, the quality of the education being provided. Moreover, excessive dependence on GenAI has the potential to undermine critical thinking and creativity (Weng et al., 2024; Qian, 2025; Rudolph et al., 2024), which are crucial for sustainable KM practices that build upon human expertise and innovation. For example, Kosmyna et al. (2025) noted that dependence on AI tools like LLMs puts critical thinking, intellectual autonomy, and deep cognitive processing at stake (pp. 140-143). Fan et al. (2025) further state that AI tools could create "metacognitive laziness," where users offload cognitive efforts to AI, which weakens memory retention, reduces engagement, and impaired ownership of ideas.

Another related risk relates to the accuracy and reliability of GenAI outputs. GenAI tools can produce misinformation, inaccuracies, and what is called "hallucinations", where the system generates plausible but incorrect information (Neumann et al., 2024; Damiano et al., 2024; Wang, 2023). These hallucinations have the potential to misguide students, instructors, or researchers, thus negatively impacting academic research and learning outcomes (Yigci et al., 2025; Schön et al., 2025). The proliferation of misinformation and inaccuracies in AI-centric content can also threaten the trustworthiness and credibility of knowledge repositories, resulting in a growing challenge to develop reliable and trustworthy KM systems (Yigci et al., 2025; Wang, 2023). Moreover,

since GenAI's decision making is non-transparent, meaning users cannot verify the sources or reasoning behind AI-generated responses (Kim et al., 2025; Chiu, 2024), potentially making the information they produce more difficult to trust.

Additionally, the use of GenAI is likely to entail ethical risks relating to copyright infringement and sensitive data misuse. GenAI tools often produce content without due attribution, creating legal gray areas around authorship and intellectual property rights (Wang et al., 2024; Cordero & Cordero-Castillo, 2024; Abbi et al., 2025). Privacy and data security risks (i.e., breaches or misuse) can be significant, as GenAI platforms gather and process sensitive student and institutional information (Dempere et al., 2023; McDonald et al., 2025; Abbi et al., 2025). Furthermore, privacy and data security concerns can undermine the sustainability of KM because breaches in sensitive information erode trust in knowledge-sharing platforms (Dempere et al., 2023; McDonald et al., 2025; Abbi et al., 2025). If higher education institutions desire to gain the previously mentioned benefits of GenAI while maintaining academic integrity, equity, and sustainable KM systems, these challenges and risks need to be addressed. Such ethical dilemmas call for, among other things, the definition of strong guidelines and moral frameworks to provide a grounded application for the use of GenAI in higher education (Zlotnikova et al., 2025).

One additional risk involved with GenAI in HEIs is related to the digital divide. The availability of advanced AI tools at unequal rates to students and institutions, especially those with significant digital literacy gaps, could further widen socio-educational gaps (Madden et al., 2025; Alba et al., 2026; Jin et al., 2025). Students from lower socioeconomic status (SES) groups may find it difficult to procure the best GenAI tools, restricting their prospects of harnessing the resources these technologies provide, further widening the education gap (Miller, 2024; Abbi et al., 2025). This divide has the potential to hinder the degree to which inclusion and fairness exist within higher education, making it important to plan initiatives for all aspects of equal access to GenAI tools. The identified risks discussed only represent a small subset of the most frequently cited risks.

The existence of trust between the various interacting stakeholders in a HEI reduces the perceived risks of interaction and increases the likelihood of GenAI adoption. In the following section, the importance of establishing trust in the use of GenAI technologies in HEIs is further discussed.

4. Trust in the Use of GenAI in Higher Education Institutions (HEI)

A detailed discussion of human trust in the context of GenAI is outside the scope of this paper. The authors have previously discussed the significance of trust in GenAI and presented a potential path forward for modeling trust in GenAI, more broadly (Evans and Wensley, 2026, and assessing GenAI trustworthiness, more specifically (Evans et al., 2025). Like in other contexts, in HEIs, trust in Generative AI (GenAI) technologies is a critical determinant of their sustainable integration and use. This is because trust is fundamental for addressing ethical challenges, safeguarding academic integrity, and instilling confidence in the reliability and accuracy of AI-generated outputs (Cena et al., 2026). The absence of trust may undermine the transformative potential of GenAI in education, hindering its effective application in teaching, learning, and research. Trust also extends beyond technical considerations, encompassing relational dynamics shaped by socio-ethical contexts, institutional policies, and stakeholder perceptions (Lelescu et al., 2025). A balanced assessment of the benefits and risks associated with GenAI is very important in building trust in GenAI, and in its adoption into higher education.

HEIs also play a crucial role in fostering trust in GenAI technologies. Cena et al. (2023) emphasize the importance of developing strong policies and guidelines to combat ethical issues, academic integrity, and data privacy. It is further recommended for HEIs to carry out organized AI literacy programs and staff development initiatives that will support educators and students to recognize GenAI's capabilities, as well as its limitations (Zhang & Reusch, 2025). Through transparency and ethical practices, HEIs can foster a culture that encourages trust and allows the smooth integration of GenAI into the academic settings. Moreover, HEIs should address disparities in access to GenAI tools. Valdivieso and González (2025) emphasize the importance of ensuring equitable access to advanced AI technologies, particularly in under-resourced contexts, through subsidies and training programs. This approach can mitigate inequities and promote inclusivity, ensuring that all students and educators benefit from GenAI's transformative potential. Furthermore, HEI stakeholders should be actively involved when developing ethical frameworks and policies to control the use of GenAI. Alba et al. (2026) advocate for campus-based approaches that let all members of the school community—students, faculty, and administrators—devise academic programs which are transparent and inclusive. Interdisciplinary work is needed with ethics committees established in places where algorithmic biases, privacy abuse, or academic integrity are problems (Zhang & Reusch, 2025).

Professional development for educators is another critical component in fostering trust in GenAI technologies. Lee et al. (2024) emphasize the need for HEIs to equip educators with the requisite knowledge and skills to use GenAI tools effectively and ethically. This includes addressing issues related to academic integrity, accuracy, and ethical usage, as well as promoting transparency in student interactions with AI. Additionally, professional development programs should focus on teaching prompt engineering to make sure educators are communicating with the GenAI in a manner that minimizes introducing bias into the decision-making process (Lee & Palmer, 2025). Tailored training programs and workshops can bolster educators' confidence in responsibly leveraging GenAI (Lee et al., 2024; Kurdi et al., 2025). Similar professional development programs could also be developed for students and researchers. Furthermore, HEIs should thoughtfully integrate GenAI into curricula, balancing its advantages with traditional pedagogical methods to ensure holistic educational development. Batista et al. (2024) suggest redesigning assessment methodologies to align with GenAI's capabilities while fostering critical thinking and reflective learning.

5. Conclusion

The adoption of Generative AI in HEIs presents both transformative benefits and significant risks, with significant implications for KM and trust. It is important to note that while GenAI enhances academic support, productivity, and inclusivity, it also introduces challenges such as academic dishonesty, ethical concerns, and over-reliance on AI tools, which can, in the long term, undermine critical thinking and social engagement. Thus, to maximize the perceived benefits and minimize the risks associated with GenAI, HEIs should develop clear policies, promote AI literacy, and ensure equitable access to GenAI technologies. Establishing ethical standards, transparency, and comprehensive training for instructors and students will be essential for fostering trust and responsible use of such tools. In taking a balanced and structured approach, HEIs can leverage GenAI's potential to create a more inclusive, effective, and trustworthy educational environment and better guarantee that GenAI's integration into HEIs supports academic integrity and sustainable knowledge management.

Ethics Declaration: No ethical clearance was required for this research.

AI Declaration: No artificial intelligence was used in the development of this paper.

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