


Charting the Technological, Ethical, and Academic Concerns and Potentials of Generative Artificial Intelligence in Qualitative Research


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Abstract

Objectives: This research determines the academic, ethical, and technological concerns and potentials of GenAI as perceived by teacher–researchers and explores the concerns and potentials of using GenAI in academic classrooms and qualitative research undertakings.

Methods: This study employed the hermeneutic phenomenological postmodernism approach, which is a qualitative research design that, in the present study, delved into the intricate tapestry of lived experiences of 120 purposely selected teacher–researchers from France, India, Nepal, and the Philippines. The teacher–researchers participated in hybrid in-depth interviews and informal conversations guided by 10 interview questions. Responses were thematically analyzed following the phases of the hermeneutic phenomenology method.

Results: This study explored teacher–researchers’ experiences with GenAI. Findings highlighted three (3) major domains—technological, academic, and ethical—with nine (9) themes in total. The technological

domain encompassed AI's accessibility and efficiency, its role in academia, and its benefits for research task automation. Academically, the study revealed that GenAI facilitates writing skills, encourages collaboration, and improves research quality. From an ethical lens, the findings showed how AI influences innovative and ethical writing, questions of credibility, trust, reliability, and the concern for research data bias.

Conclusions: This research reports the intricate interplay between GenAI's potential to transform academic classrooms and qualitative research and the ethical considerations this emerging technology brings. GenAI provides increased efficiency and new research pathways, while it also concerns ethical writing, over-reliance on this technology, potential biases, and data privacy that entails mindful consideration.

Implications: Collaborative efforts among educators, researchers, policy makers, and AI developers should focus on creating frameworks that promote innovation while upholding ethical academic practices. Continued interdisciplinary research on GenAI's impact is crucial in refining best practices and ensuring that technological advancements align with scholarly integrity and ethical responsibility.

Keywords: *academic research, generative artificial intelligence, techno-ethical*

Date Submitted: February 5, 2025 | **Date Accepted:** January 2, 2026 | **Date Published:** May 13, 2026

Recommended Citation

Villarama, J. A., Fabros, B. G., Dela Fuente, A. V., Canosa, J. D. L., & Roy, S. (2026). Charting the technological, ethical, and academic concerns and potentials of generative artificial intelligence in qualitative research. *Higher Learning Research Communications*, 16(1), 1–13.
<https://doi.org/10.18870/hlrc.v16i1.1654>

Introduction

In the past few decades, digital technology has completely changed the landscape of academic research writing as well as the styles and experiences of researchers in their academic and collaborative work. Among the most promising and controversial technological tools is generative artificial intelligence. GenAI has become a major force in this technological shift, evolving from a basic text generator into an advanced, adaptive teaching and learning tool in today's classrooms. GenAI tools are now essential for helping scholars draft articles, sift through vast quantities of data, and identify research gaps quickly (Guilherme, 2019). As a research tool, GenAI not only transforms academic writing across borders but displays a beneficial effect in learning and other tasks (Fabros, 2021; Fabros & Ibañez, 2023; Villarama et al., 2025b). Among working employees who juggle multiple academic and personal responsibilities, the use of GenAI helps them accomplish their goals (Villarama et al., 2024b).

While GenAI has a crucial role among researchers in a myriad of contexts, there remains a noticeable gap between what GenAI can technically do and how it is integrated into ethical and academic practices across various fields. Much of the research up to now has focused on the raw computational power of GenAI tools. Only a handful of studies looked into how these can be aligned with established teaching principles and educational theories. Chen et al. (2023) urged that focusing solely on cutting-edge GenAI methods without considering ethical and pedagogical issues can threaten academic integrity and may even stifle the development of independent critical thinking. While work on adaptive learning has shown some promising results (Guilherme, 2019), research work on this field still lacks extensive, replicated evidence on GenAI's real impact on students' attitudes toward research and their critical-reasoning skills. Villarama et al. (2025a) also highlighted concerns that GenAI inadvertently weakened the growth of autonomous critical thinking among students.

Taking into consideration the technological and ethical concerns and academic potentials of GenAI, the current study explored the roles of GenAI in both academic classroom and research. Specifically, the present study (1) determined the academic, ethical, and technological concerns and potentials of GenAI as perceived by teacher–researchers; and (2) explored the concerns and potentials of using GenAI in academic classrooms and qualitative research undertakings. Through these goals, the research provides a balanced view of both the concerns and the potentials of integrating GenAI into academic and research works.

This research is important because it addresses the need to harness advanced technology without compromising academic integrity. By combining the innovative potential of GenAI with tried-and-true educational theories and ethical guidelines, this study informs a framework that educators and researchers can use to enhance both learning outcomes and the overall quality of research. As more academic institutions start incorporating AI-driven methods into their teaching and research processes, establishing this balanced approach is crucial, not only for promoting innovation but also for ensuring that critical, reflective thinking remains at the heart of academic practice.

Literature Review

Generative Artificial Intelligence (GenAI) and Its Academic Research Path

The exploration and investigation of GenAI within educational research landscapes has undergone extensive scrutiny through both theoretical lenses and empirical investigations. This scrutiny had fostered a diverse array of perspectives regarding GenAI's application and its implications for academic research practices.

Law (2024) underscored the capacity of GenAI to refine conventional teaching modalities and enrich educational encounters in the contemporary digital milieu, advocating for a GenAI integration approach that not only preserves but also amplifies traditional academic research practices, promoting a harmonious fusion of technological advancements and educational theories. Similarly, Yue et al. (2022) probed the impacts of GenAI-driven instructional programs within the K–12 educational framework through empirical analyses, indicating a positive correlation between such programs and enhancements in students' motivation, engagement, and learning attitudes toward qualitative research. Moreover, they stressed the importance of continued empirical efforts to ascertain GenAI's effectiveness in research contexts and its influence on academic, ethical, societal, and technological aspects. Meanwhile, Orel et al. (2023) contemplated the future of academic research, especially on the integration and utilization of GenAI in the training of qualitative researchers and the symbiotic relationship between technological advancements and academic research methodologies. O'Dea & O'Dea (2023) assessed the revolutionary potential of GenAI in the higher education research paradigm through the lens of the Technological Pedagogical Content Knowledge (TPACK) framework and the Unified Theory of Acceptance and Use of Technology (UTAUT). They underscored the need for a clearer definition of how GenAI can ethically benefit research endeavors and called attention to the challenges of integrating and utilizing GenAI into qualitative research practices, emphasizing the critical role of empirical evidence in fully understanding the impact of GenAI on the academic research writing processes.

GenAI in Qualitative Research and Its Techno-Ethical and Academic Concerns

Nowadays, GenAI is based on generative models that produce innovative and efficient results, transforming the role of researchers, teachers, and students (Chiu, 2024). There has been a growing interest in GenAI attributed to its practical applications in various real-world domains, such as teaching, testing, and writing (Guilherme, 2019). However, little is known about the domain of GenAI, which encompasses tackling academic, ethical, and technological concerns (Chen et al., 2023). Ethical principles should include the design, development, and deployment of GenAI in academic research (Chiu, 2024). Few developments have been explored regarding, among others, the GenAI application–focused approach for evaluating academic and

research data (Guo et al., 2021), AI-based ethical research writing and application (Casal & Kessler, 2023), or AI-powered e-writing methods for ethically personalized academic research (Gayed et al., 2022). In research, GenAI solves manpower shortages and facilitates access to writing various content (Li et al., 2025). For GenAI to be integrated into academic research writing, the pedagogical proficiency of researchers is essential (Chen et al., 2023). The integration of GenAI into the research writing system determines how it affects both technical and ethical aspects (Chen et al., 2023; Ghamrawi et al., 2024); thus, GenAI can either enhance or exacerbate existing inequalities in academic research, depending on how it is implemented and accessed (Chen et al., 2023; Stewart, 2023).

While GenAI enhances academic and research productions, it also incurs risks, such as ethical and systemic biases. GenAI requires a multitude of data from various sources, which sets up the possibility of high risk for human research respondents. With GenAI's multifunctionality, qualitative researchers and academicians fear a total dependence on GenAI and note that it remains important to be skillful on the basics of research writing and analysis to check the accuracy of GenAI results being integrated in research functions. Relying solely on GenAI limits researchers' abilities to make scholarly decisions (Adiguzel et al., 2023; Tang et al., 2024), hence the need to preserve freedom of choice and secure human control over GenAI-based work processes. Integration of GenAI in academic research is inevitable, balancing justified and ethical use (Bozkurt, 2024; Hofeditz et al., 2025). It is important to supervise and legislate the use of GenAI to limit potential academic, ethical, and technological concerns and risks (Alharbi, 2023; Ungureanu & Amironesei, 2023).

Purpose of the Study

This study (1) determines the academic, ethical, and technological concerns and potentials of GenAI as perceived by teacher–researchers; and (2) explores the concerns and potentials of using GenAI in academic classrooms and qualitative research undertakings.

Methods

Research Design

This study employed a hermeneutic phenomenological postmodern approach, a qualitative design that explores the complexity of human experience and the constructed nature of meaning within specific sociocultural contexts. Hermeneutic phenomenology emphasizes interpretation rather than mere description, allowing the researchers to uncover how participants make sense of their lived realities. The postmodern orientation further challenges traditional value systems, inviting plural and context-sensitive interpretations of truth and knowledge.

Through this design, the researchers sought to illuminate how teacher–researchers construct, negotiate, and experience the ethical, academic, and technological dimensions of generative artificial intelligence (GenAI) in qualitative research. The study was reviewed and approved by the Central Luzon State University Ethics Research Committee (CLSU-ERC) in the Philippines, with Protocol Compliance Code 2024-576, dated September 10, 2024.

Participants

The investigation was conducted among teacher–researchers from France, India, Nepal, and the Philippines who were selected through purposive sampling to ensure information-rich cases. The inclusion criteria were: (a) active affiliation with a public or private college or university; and (b) demonstrable experience using at least one GenAI tool for teaching or qualitative research purposes.

A total of 120 participants (30 from each country) contributed their lived experiences through hybrid in-depth interviews and informal conversational dialogues. This cross-contextual design enriched the data with cultural and institutional diversity while maintaining the phenomenological focus on individual meaning-making.

All participants provided informed consent and agreed to have their sessions recorded in written, audio, and video formats. Ethical safeguards for confidentiality, voluntary participation, and data privacy were strictly observed.

Instrumentation and Data Collection

The research instrument consisted of three components: (1) informed consent and data privacy clause, ensuring transparency and ethical compliance; (2) interview guide questions on teacher–researchers’ perspectives and experiences of using GenAI in qualitative research writing, focusing on academic, ethical, and technological contexts; and (3) questions on the utilization of GenAI as a potential source for developing novel and ethical academic research policies.

The 10-item interview guide was validated by five specialists—a linguist, psychologist, researcher, statistician, and educator—to ensure clarity, depth, and cultural relevance. Data collection occurred through synchronous (online) and asynchronous (email/chat-assisted) modalities, enabling flexibility across countries and time zones. Interviews averaged 45–60 minutes and were conducted in English, with clarifications provided in local language, when necessary.

Data Analysis

Data analysis followed the Phases of Hermeneutic Phenomenology as outlined by Guillen (2019), with iterative movement between description, reflection, and interpretation. The process consisted of the following stages:

1. **Clarificatory Stage.** The researchers revisited the study’s guiding questions and theoretical assumptions to clarify pre-understandings and potential biases. Reflexive journaling was maintained throughout to ensure awareness of positionality and interpretive stance.
2. **Collection and Immersion.** Audio and video recordings were transcribed verbatim. Each transcript was read multiple times to gain holistic familiarity with participants’ narratives. Initial margin notes captured impressions, emotions, and potential meaning units.
3. **Iterative Coding and Thematic Clustering.** Using inductive and iterative coding, researchers identified recurring expressions and meaning structures. Codes were organized into clusters of meaning that reflected shared experiential essences across participants. Collaborative peer debriefing was conducted to refine codes and resolve interpretive discrepancies.
4. **Interpretive Synthesis.** Themes were synthesized through hermeneutic interpretation wherein individual experiences were contextualized within broader cultural and ethical discourses about GenAI. The interpretive process moved cyclically between parts and whole (the hermeneutic circle), ensuring that understanding evolved through constant dialogue with the data.
5. **Validation and Trustworthiness.** To enhance credibility, member checking was conducted with selected participants who reviewed thematic summaries for accuracy. Peer examination and an audit trail were maintained to document analytical decisions. Triangulation of data sources (interviews and informal conversations) further strengthened dependability.

The final thematic framework captured the convergence of technological, ethical, and academic considerations shaping teacher–researchers’ lived experiences with GenAI. These themes later informed the development of a conceptual model grounded in empirical data.

Limitations

This study focused exclusively on teacher–researchers from France, India, Nepal, and the Philippines who integrate GenAI into their classes and qualitative research practices. It did not include the perspectives of students or other demographic and disciplinary variations, such as age, gender, area of specialization, linguistic background, or quantitative methodological expertise. The findings are, thus, context-specific and interpretive rather than generalizable, aligning with the philosophical stance of hermeneutic phenomenology.

Results

This section presents the technological, ethical, and academic concerns and potentials of GenAI as perceived by teacher–researchers who integrate GenAI in their respective classrooms and qualitative research undertakings. In total, nine (9) themes emerged under three (3) domains, and were accentuated with direct personal narratives from the respondents.

As teacher–researchers, the integration of digital technology, such as GenAI in academic classrooms, and qualitative research augment their accessibility to a volume of data, thereby increasing teachers' efficiency in preparing lessons and activities and providing them extra time to engage in collaborative research across borders. Given teacher workloads, the utilization of GenAI helps streamline and automate their tasks to a certain extent—but, GenAI also has limitations.

As experienced by one of the teacher–researchers, R27, they were relieved by the use of GenAI, which boosted and revitalized their energy as the regular, manual processing of large volume of data was cut short through GenAI. They also shared that GenAI recalibrated their views on collaborative research projects, for they became more enthralled with the process of collaborative writing and mentoring, which they described personally as an empowering shift in their research mindset and experience.

“Because of GenAI, searching for information and processing of numerous research data became automatic and time efficient, which allowed me to write more research articles [R27].”

“Doing research with scholars from different places was made easier and more efficient through online platforms since resources are also available online despite minor challenges because of poor internet connection [R15].”

As personally experienced by R15 prior the utilization of GenAI, there was difficulty on international research collaboration because of the limitations brought about by time differences and internet connectivity in select areas. With the use of GenAI, they described their experiences as more connected to the world, despite their distance from their collaborators. There were minor issues on internet connections, but they were superseded by more beneficial interactions with their colleagues across borders.

However, one teacher-researcher (R3) pointed out that GenAI in academic research must be regulated to avoid abusive use, which leads to academic dishonesty and derelict writing. Regulation on the integration and use of GenAI tools will necessitate institutional and area-specific guidelines.

“As a researcher, I appreciate the integration of technology in academic research writing but I suggest having regulation so as not to abuse the use of GenAI, which might lead to irresponsible writing [R3].”

The presence of GenAI in qualitative research writing brings innovative ways of approaching and presenting research-based facts, making the strenuous research writing process less demanding and manageable.

“It is good to maximize the use of technology in research just like the use of GenAI tools but there should be a balance between innovation and ethics in any academic writing and publication [R55].”

Innovation in classrooms and research endeavors aligns with ethics. While GenAI generates information based on a systemic command of users, generated research data must be verified to eschew research data biases that are detrimental to the credibility of researchers and the reliability of results. While the research path with GenAI showed promising innovations, some teacher–researchers shared that they personally felt excited about the convenience, yet they still were anxious about the potential inaccuracy issues on the integration of GenAI in academic undertakings. R36, for instance, expressed that academic writers who rely too heavily on AI-generated data could produce work that is questionable and unreliable, which potentially leads to questions on fully embracing innovations in research and maintaining academic integrity in the field.

“Over-reliance on GenAI tools makes the research information and the writers questionable and unreliable, especially when the researchers do not carefully examine the information generated solely through AI [R36].”

“Since the proliferation of GenAI, not all the research data/information is accurate, that is why as a researcher, I need to verify the contents generated through the GenAI tool [R48].”

“Not all authors and studies cited or generated by GenAI tools are correct, that is why it is the responsibility of writers to check the veracity of information from GenAI tools to maintain high-quality research outputs as well as academic rigor [R88].”

As noted by R48, vigilance is a requisite for the utilization of AI tools (GenAI) in any endeavor, especially research. The respondent shared how they religiously cross-check and validate AI-produced information, often putting in extra hours at night after their regular duties as teachers. Further, R88 emphasized the responsibility of teacher–researchers to intervene and manage the use of GenAI in their respective endeavors, to authenticate the works fabricated through GenAI.

Despite this need for verification, teacher–researchers consider GenAI a beneficial tool for them to accomplish their classroom-based responsibilities, such as planning lessons, creating PowerPoints, writing reports, and so on.

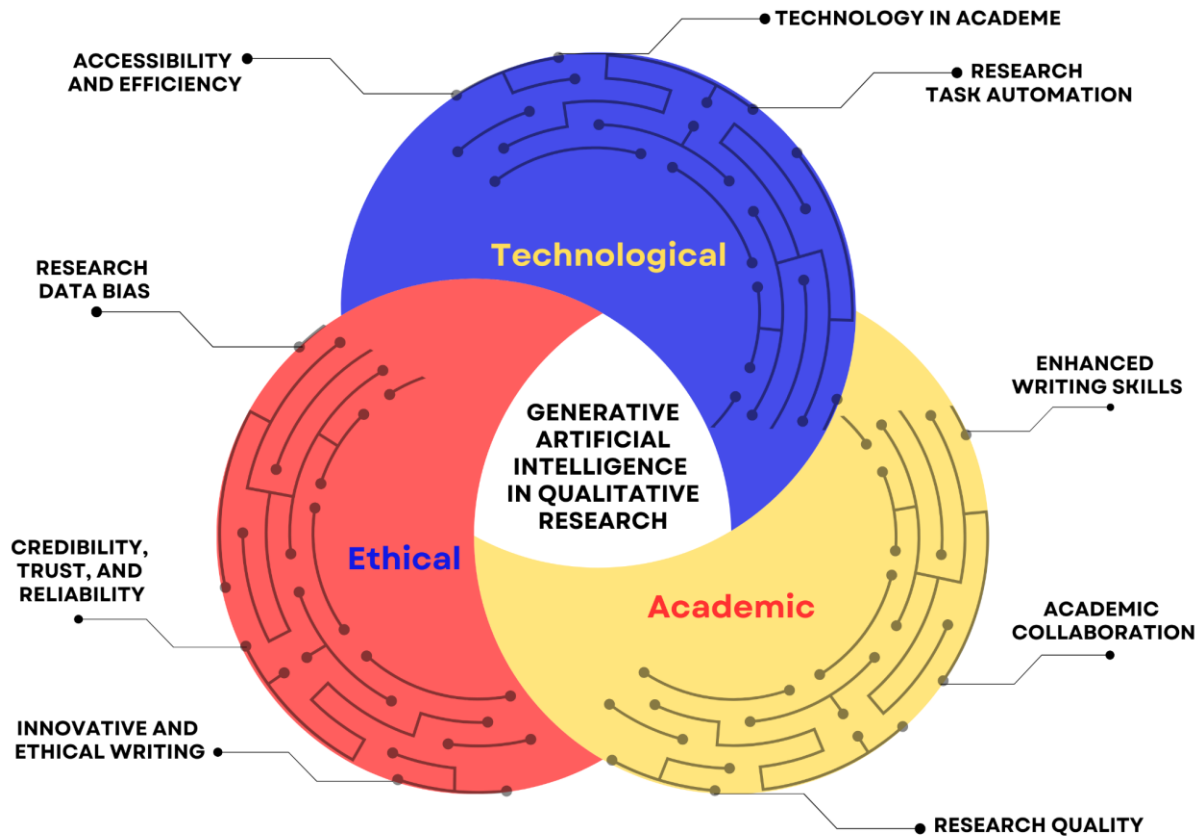
“With the use of GenAI tools, I was able to improve my research writing skills because these AI tools actually supported me by providing writing plans, samples, concepts, and sort of templates so that I can write my ideas better [R69].”

Given the budding potential of GenAI in academic classrooms and qualitative research, academic collaborations among teacher–researchers from disparate institutions and in different counties can emerge as a promising direction.

“With the use of GenAI tools, a researcher like me was able to form academic linkages from various institutions and countries because we shared common practices and problems in terms of the use of AI tools [R74].”

While the results of this study highlighted the promising aspects of integrating GenAI tools in academic classrooms and qualitative research, concerns about focusing on academic credibility, data reliability, content bias, ethics, and over-reliance on GenAI-generated content persist. This dynamic challenges teacher–researchers and policy makers to establish ethical guidelines and practices in academic classrooms and research along with strategic actions to extenuate possible risks in academics and research.

Figure 1. *Intersection of Technological, Ethical, and Academic Considerations in Generative Artificial Intelligence for Qualitative Research*



Grounded in the lived experiences of teacher–researchers, Figure 1 reveals the personal accounts of teacher–researchers who shared their technological, ethical, and academic experiences with GenAI. As shared by R15 and R27 on the technological side of Figure 1, they personally experienced lighter workload and more efficient work experience with the integration of GenAI, which brought them fresh opportunities to have more meaningful collaborations with other professionals within and even outside the country. Meanwhile, the ethical side was rooted in the shared experiences of the teacher–researchers whose concerns were centered on ethical and responsible utilization of GenAI. In fact, R3, R36, and R48 reported how GenAI affected the accuracy, credibility, and reliability of information sourced out with the help of AI tools. They further explained the relevance of verification and vigilance to avoid academic dishonesty and misinformation, which promoted ethical use of GenAI in their undertakings. Finally, Figure 1 illustrates the academic side that came out of the lived experiences of R69 and R74, whose narratives highlighted academic productivity among teachers and researchers from various parts of the world, increased professional linkages through research, and improved writing because of research collaborations and mentoring. These interconnected experiences, as collectively exemplified through Figure 1, portray the day-to-day realities, benefits, and challenges

encountered by teacher–researchers integrating GenAI into their qualitative research and classroom practices.

Discussion

The findings provide valuable insights into the complex interplay between technological innovation on the one hand and ethical considerations in the integration of generative artificial intelligence (GenAI) into qualitative research on the other hand. Through the hermeneutic phenomenological postmodernism approach, the diverse perspectives of the researchers from France, India, Nepal, and the Philippines about the potentials and challenges of GenAI in academic research were explored.

A key finding of the study is the growing dependence on GenAI as a tool for research. This tool is mainly used for literature reviews, data analysis, and organizing academic writing. A majority of the respondents shared how GenAI enhances efficiency by simplifying repetitive tasks, extracting insights from large datasets, and proposing new avenues for research exploration. This observation aligns with the findings from researchers examining the ethical implications and risks of AI in societal contexts (Torres et al., 2025). However, despite these benefits, respondents expressed significant concerns about ethical issues, data privacy, and academic integrity. Comparatively, these concerns have been highlighted in earlier studies, pointing out that while GenAI assists in knowledge creation, it also poses risks such as misattribution, excessive dependence, and a decline in critical thinking among researchers (Villarama et al., 2025a).

Research shows that this possible decline in critical thinking due to the cognitive offloading facilitated by AI tools may hinder scholars' ability to engage critically with complex concepts, ultimately impacting the depth of qualitative research (Suhardi et al., 2023; Villarama et al., 2024a; Villarama et al., 2025a). While GenAI boosts productivity, the respondents in this study emphasized the necessity of using it consciously in qualitative research to maintain the depth and interpretive richness that define this approach. Some respondents expressed hesitation about fully adopting GenAI due to concerns about some biases in AI-generated content and the risks of losing individual academic voice.

Recent studies have highlighted ethical concerns regarding the use of AI in an academic setting. Major issues have included the lack of required transparency in the decision-making processes of these algorithms as well as the difficulties in producing unbiased content, which significantly affect academic engagements, self-esteem, and motivation to collaborate (Villarama et al., 2023; Villarama et al., 2024c). In recent studies, this lack of transparency often found in AI-generated content has especially raised serious questions about the accountability and ethical responsibility of researchers, particularly while ensuring the accuracy and authenticity of AI-assisted work in both online and in-person settings (Villarama et al., 2022a). Further, some of the recent studies indicate that many researchers are becoming increasingly concerned about the potential downsides of AI, which may outweigh its benefits (Qin et al., 2024; Ray, 2023). Furthermore, data security and privacy issues were emphasized, especially in contexts where qualitative research involves sensitive human experiences and personal narratives. Scholars have warned that, given the increasing commercialization of AI tools, academic researchers must remain vigilant about the potential risks of data exploitation and algorithmic bias now that these data are available virtually (Villarama et al., 2022b).

The study also revealed variations in how different academic institutions and researchers perceive the role of GenAI in scholarly work. Some institutions are actively incorporating AI ethics training and guidelines, while others remain hesitant about its integration due to concerns about academic dishonesty and potential misuse (Aridan et al., 2025; Villarama et al., 2025a). This inconsistency points to the need for standardized policies that balance innovation with ethical responsibility in academic research.

Therefore, these findings suggest that it is an opportune time for the role of GenAI in qualitative research to be viewed through an integrative framework that aligns the technological capabilities with established research methodologies and ethical guidelines. As AI technology evolves, academic communities must proactively address ethical concerns while leveraging AI's potential to enhance scholarly contributions (Aridan et al., 2025).

Although AI definitely can enhance data-driven insights, it should not replace human interpretative skills that are essential for qualitative inquiry. Instead, it is becoming increasingly important for academic institutions and policy makers to focus on developing frameworks that support ethical AI usage. Applications of AI should not negatively impact academic integrity. Rather, it is crucial that AI-integrated research remains both innovative and responsible (Cinar & Bilodeau, 2024). The findings of this study further reinforce the necessity for continued scrutiny among researchers, educators, and policy makers regarding the responsible use of GenAI to maintain academic integrity.

Conclusion

This inquiry showed the twin nature of GenAI in qualitative research, spotlighting both its transformative potential and the ethical challenge it may raise. GenAI has increased research efficiency, fast-tracked work, and boosted scholarly collaboration. However, issues of data protection, academic integrity, and cognitive reliance remain prevalent.

Through this paper, the authors uncovered the urgency to balance between integration of AI-driven efficiencies and maintaining human rationality and ethical considerations. Academic institutions' variations of positionality and responses lead to the need for policy standardization that ensures responsible and ethical AI use without sacrificing academic integrity. As GenAI continuously evolves, academicians must proactively engage in ethical discourse and policy formulation to minimize the risks while maximizing its benefits. With this paper, it is strongly recommended that learning institutions implement systematic, methodical, and structured AI literacy programs, equipping and capacitating researchers with the right skills to critically evaluate and ethically use AI-generated content.

Moreover, educational institutions should give priority to creating comprehensive and inclusive AI ethics training and standardized policies and procedures for ethical and responsible usage. These guidelines should help to balance innovation with academic integrity, and they should cite the significant role of human interpretation. Policy makers should create clear guidelines on transparency, accountability, and data privacy to minimize the potential risks, biases, and misinformation in AI-assisted research. Future research should also consider best practices for ethical GenAI implementation, ensuring its increased integration without compromising the rigor and depth of inquiry.

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