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Human-Centered AI in Education: Educators' Perspectives on Teacher Roles, Ethics, and Pedagogical Value

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Abstract

As Artificial Intelligence (AI) becomes increasingly embedded in global education, its implications for teaching practices, teacher identity, and learner engagement warrant critical examination. In the Philippine context, where relational pedagogy and values formation remain foundational, the question of AI's role in education is both urgent and complex. This study employed a qualitative phenomenological design to investigate the lived experiences of 25 educators from public and private institutions across Luzon, Visayas, and Mindanao. Data were collected through semi-structured interviews and focus group discussions, then analyzed using Braun and Clarke's thematic analysis framework. Four major themes emerged: (1) AI was perceived as an instructional support tool rather than a replacement for teachers; (2) the irreplaceable human dimensions of empathy, mentorship, and moral guidance were reaffirmed; (3) systemic gaps in infrastructure, training, and digital readiness posed barriers to equitable adoption; and (4) ethical concerns regarding data privacy, academic integrity, and teacher deskilling persisted. While educators acknowledged AI's potential to streamline tasks and enhance personalization, they emphasized the need to preserve teacher agency, professional identity, and ethical practice. The findings underscore the importance of a teacher-centric integration framework that invests in infrastructure, strengthens professional development, and embeds ethical safeguards. This study contributes to the global discourse on human-centered AI in education by providing culturally grounded insights and practical recommendations for the sustainable and inclusive adoption of AI in the Philippine educational system.

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Introduction

Artificial Intelligence (AI) has emerged as a transformative force in global education, reshaping how teaching and learning are designed, delivered, and assessed. Its applications—ranging from adaptive platforms and intelligent tutoring systems to gamified applications and chatbots—promise to enhance outcomes by automating administrative tasks, personalizing instruction, and fostering data-driven decision-making (Balaquiao, 2024; Carvajal et al., 2025). In the Philippines, these technologies are increasingly linked to the realization of Education 5.0, which aspires to combine digital fluency with human-centered learning and equitable access to resources. Yet, as AI becomes more integrated into classrooms, critical questions emerge about the extent to which it can complement or redefine the teacher's role, particularly in a system where relational pedagogy, empathy, and moral guidance are deeply embedded in the cultural fabric of education (Mananay, 2024; Capinding & Dumayas, 2024).

While AI tools have demonstrated efficiency in areas such as language instruction, assessment, and content generation, they consistently reveal limitations in replicating higher-order thinking, cultural sensitivity, and emotional depth. Such constraints are especially problematic in educational settings where teaching extends beyond knowledge transfer to the cultivation of values, interpersonal relationships, and ethical discernment (Louis & ElAzab, 2023; Chounta et al., 2022). This tension highlights a broader dilemma: although AI can streamline routine tasks and enhance personalization, it remains incapable of replicating the humanistic qualities that define effective pedagogy. As a result, debates around AI adoption are no longer limited to technological performance but increasingly concern how it can be harmonized with the human dimensions of education in culturally specific contexts like the Philippines.

Another pressing issue is the uneven readiness of teachers and institutions to engage with AI meaningfully. Studies show that Filipino educators often encounter structural constraints such as outdated pedagogical models, limited digital literacy, and uneven exposure to emerging tools (Gamad et al., 2025). Pre-service teachers, meanwhile, display ambivalence toward generative AI platforms like ChatGPT, with some acknowledging its instructional support while others worry about its implications for creativity and original thinking (David & Maroma, 2025). These challenges demonstrate that AI adoption is not simply a matter of access to technology but also of cultivating pedagogical, ethical, and cultural capacities. To address these gaps, teacher education and professional development must evolve toward integrating AI literacy within broader frameworks of constructivism and humanism, thereby ensuring that teachers remain central agents of innovation rather than passive adopters of external technologies.

Beyond issues of readiness, AI integration in Philippine education presents significant ethical and equity concerns. Scholars identify growing risks related to data privacy, academic integrity, algorithmic bias, and the deskilling of teachers when AI substitutes for rather than augments professional judgment (Khatri & Karki, 2023; Eden et al., 2024). These risks are particularly pronounced in the Philippines, where education is strongly tied to character formation, civic responsibility, and social justice. If implemented without safeguards, AI could unintentionally exacerbate existing inequalities, marginalize under-resourced schools, and erode the relational and moral foundations of teaching. Thus, ethical implementation, inclusive access, and participatory design must guide

policy frameworks to ensure that innovation supports rather than undermines the values of Philippine education (Bibi et al., 2024; Topali et al., 2025).

Despite increasing scholarly interest in AI's potential in education, a crucial gap remains in the literature: the perspectives of in-service Filipino educators who directly confront the opportunities and challenges of AI in their classrooms. Much of the existing research privileges the voices of students, policymakers, or technology developers, leaving teachers—the frontline implementers of pedagogy—underrepresented in discussions of integration. Addressing this gap is essential, as teachers provide insights not only into the practical use of AI but also into its alignment with values-based, culturally grounded approaches to teaching and learning. This study therefore seeks to explore the lived experiences and professional perceptions of educators across Luzon, Visayas, and Mindanao, offering evidence-based, contextually relevant insights into how AI can be responsibly integrated into Philippine education without displacing the irreplaceable human dimensions of empathy, mentorship, and ethical guidance.

Literature Review

The increasing global integration of Artificial Intelligence (AI) in education has reshaped pedagogical practices, requiring a reconfiguration of instructional design, assessment mechanisms, and administrative functions. Across diverse contexts, AI was positioned as a driver of Education 5.0, which advanced both technological fluency and human-centered learning, thereby challenging educators to harmonize innovation with core teaching philosophies (Balaquiao, 2024; Carvajal et al., 2025). In the Philippines, this shift underscored a duality wherein AI enabled operational efficiency but simultaneously disrupted the socio-emotional and ethical foundations of pedagogy. Such tensions highlighted the need for a critical appraisal of AI's alignment with holistic educational values, particularly given the centrality of empathy, cultural responsiveness, and moral formation to Filipino education. Scholars therefore stressed that contextualized adoption was essential to ensure that AI complemented rather than displaced relational pedagogy (Nikitina & Ishchenko, 2024).

Empirical evidence revealed that while AI enhanced instructional efficiency by automating grading, providing instantaneous feedback, and enabling personalized learning pathways, its uncritical application risked undermining pedagogical authenticity and widening systemic inequities (Pratama et al., 2023). Teachers reported digital fatigue, technological overdependence, and institutional unpreparedness, reflecting uneven readiness within Philippine education (Umali, 2024). These concerns echoed disparities in digital infrastructure and technological literacy across urban and rural regions, where under-resourced schools faced exclusion from AI-enhanced learning. Educators with international exposure further noted that AI adoption transformed teacher identity and pedagogical values, necessitating localized and ethically anchored approaches to integration (Borbon et al., 2025). Collectively, these findings demonstrated that innovation needed to be tempered with cultural sensitivity and pedagogical intentionality to prevent widening inequalities and to ensure AI integration strengthened rather than weakened the role of teachers.

Teacher readiness emerged as a decisive determinant of successful AI adoption, as competence, confidence, and

ethical awareness shaped how educators navigated technology-enabled environments. Although preservice teachers increasingly recognized AI's potential for instruction, concerns persisted regarding its implications for creativity, student independence, and critical reasoning (Bautista et al., 2024). Post-pandemic analyses further highlighted persistent gaps in educators' capacity to align AI with twenty-first-century competencies, reflecting misalignments between digital demands and pedagogical preparation (Ng et al., 2023). These limitations reinforced the necessity of comprehensive teacher education and professional development programs that blended technical proficiency with ethical reflection and culturally grounded pedagogy. Effective integration, therefore, depended not only on access to tools but also on cultivating teacher agency and reflexivity within contextual realities, affirming that AI's educational value rested on its ability to empower rather than displace educators.

Equally significant were the emotional and ethical dimensions of teaching, which AI was unable to replicate despite advancements in adaptive learning and intelligent systems. Filipino educators emphasized that moral guidance, mentorship, and affective engagement remained irreplaceable, underscoring that current AI applications could not provide empathy or ethical discernment in classroom interactions (Aure & Cuenca, 2024). Excessive reliance on machine-generated feedback risked reducing education to transactional exchanges, undermining the relational essence of pedagogy. Cross-national findings validated these concerns, as educators worldwide resisted assigning emotionally complex or ethically sensitive roles to AI (Chounta et al., 2022). The consensus across the literature affirmed that human educators were indispensable in safeguarding the affective, ethical, and cultural dimensions of learning, highlighting the necessity of human-AI collaboration rather than substitution.

Finally, scholars emphasized that AI adoption had to be guided by robust ethical and participatory frameworks to prevent misuse and to maintain alignment with educational values. Concerns around algorithmic bias, plagiarism, data privacy, and diminished teacher authority underscored the urgency of implementing governance mechanisms and clear ethical standards (Khatri & Karki, 2023; Bai, 2024). Within the Philippine setting, where values formation was central to the curriculum, institutional vigilance and teacher-led frameworks were critical in preserving pedagogical integrity (Rane et al., 2024; Armstrong, 2024). More broadly, ethical challenges such as academic dishonesty, inequitable access, and teacher deskilling required systemic responses to ensure inclusivity and fairness (Eden et al., 2024). Long-term success, therefore, depended on inclusive, context-sensitive, and co-designed approaches, ensuring that AI tools responded to classroom realities, cultural norms, and student needs (Topali et al., 2025). Without stakeholder collaboration, AI risked exacerbating educational divides and eroding teacher agency. Thus, the literature converged on the conclusion that a sustained commitment to contextualization, inclusivity, and ethical co-creation defined the pathway toward responsible and transformative AI integration in Philippine education.

Methods

Research Design

This study employed a qualitative phenomenological design to examine the lived experiences and perceptions of Filipino educators regarding the integration of Artificial Intelligence (AI) in education. Phenomenology was selected because of its strength in uncovering the essence of subjective experiences and eliciting the meanings

individuals ascribe to complex and evolving phenomena. Given the study's focus on the emotional, ethical, and contextual dimensions of teaching, this approach provided a suitable framework for capturing deeply personal narratives and critical reflections that could not be sufficiently addressed through quantitative methods. By situating the inquiry within a phenomenological lens, the study sought to illuminate how educators interpreted AI as either a supportive instructional tool or a disruptive force to professional identity, while ensuring that participant voices were central in constructing an empirically grounded understanding of AI's pedagogical implications.

Research Environment

The study was conducted across selected educational institutions in Luzon, Visayas, and Mindanao, encompassing public and private schools at both basic and tertiary levels. These settings were purposively selected to capture regional variation in technological readiness, pedagogical culture, and institutional resources. The inclusion of urban, semi-urban, and rural schools ensured that perspectives from diverse infrastructural and sociocultural contexts were represented. This stratified selection strengthened the transferability of the findings by reflecting the heterogeneity of Philippine education and by providing a robust foundation for analyzing how geographic and institutional disparities influenced the adoption of AI. Such diversity allowed the study to identify both convergent and divergent perspectives, thereby generating a nuanced understanding of AI integration across the nation's educational system.

Participants and Sampling

A total of 25 educators were purposively selected to participate in the study, including classroom teachers, instructional designers, academic administrators, and department heads who had direct experience with AI-enabled tools in teaching and learning. Eligibility criteria required a minimum of two years of professional teaching experience and demonstrated engagement with AI-integrated pedagogies, such as chatbot systems, adaptive learning platforms, or automated assessment tools. Participants represented a range of disciplines, teaching levels, geographic regions, and demographic backgrounds, ensuring breadth and richness in the data collected. The purposive sampling strategy was deliberately designed to include educators with sufficient contextual expertise, thereby enhancing the credibility of the findings and enabling a detailed exploration of pedagogical, ethical, and practical issues associated with AI use in Philippine education.

Data Collection

Data were collected between January and March 2025 using semi-structured individual interviews and focus group discussions (FGDs). Interviews lasted 45 to 60 minutes and followed a validated guide that explored four areas: instructional applications of AI, ethical considerations, emotional and pedagogical impacts, and institutional readiness. Five FGDs, each consisting of 4 to 6 participants, were conducted to allow for dialogic interaction and peer validation of individual perspectives. All interviews and FGDs were conducted via Zoom or Google Meet, audio-recorded with informed consent, and transcribed verbatim. Researcher field notes were maintained to capture non-verbal cues and contextual nuances. Ethical protocols were strictly followed, including voluntary

participation, confidentiality assurances, and the right to withdraw at any point. These procedures ensured that the voices of participants were authentically documented while upholding the rigor and trustworthiness of qualitative inquiry.

Data Analysis

Data were analyzed using Braun and Clarke's six-phase thematic analysis framework, which included familiarization with the data, systematic coding, theme generation, refinement, definition, and final reporting. NVivo 12 software was employed to organize and code the transcripts, thereby ensuring consistency and transparency in the analytic process. A combination of inductive and deductive coding was applied, allowing emergent themes to arise organically from the data while remaining aligned with the study's conceptual framework. To ensure credibility, member checking was conducted with ten participants to verify the accuracy of interpretations, and triangulation across interviews and FGDs enhanced analytical depth. Peer debriefing with external qualitative experts further minimized researcher bias and reinforced methodological rigor. Data saturation was confirmed when no new themes emerged during the final stages of coding, ensuring comprehensiveness and reliability in the findings.

Ethical Considerations

Prior to data collection, ethical clearance was obtained from the University of the Visayas Institutional Ethics Review Board. Participants were fully informed of the research objectives, procedures, and data protection measures before participation, and informed consent was formally documented. Anonymity was preserved by assigning pseudonyms and removing personal identifiers from transcripts and research records. All data were stored in encrypted, password-protected files accessible only to the research team, in full compliance with the Philippine Data Privacy Act of 2012 (Republic Act No. 10173). These safeguards ensured confidentiality, voluntary participation, and protection of participant rights throughout the study. By adhering to rigorous ethical standards, the study established transparency, accountability, and integrity in exploring the sensitive pedagogical and ethical dimensions of AI adoption in Philippine education.

Results

Theme 1: AI as an Instructional Support Tool, not a Replacement

Filipino educators consistently emphasized that Artificial Intelligence (AI) should be understood as an instructional support mechanism rather than a substitute for teachers, recognizing its capacity to automate routine tasks such as grading, quiz generation, and formative feedback while simultaneously acknowledging its inability to replicate empathy, moral discernment, and cultural sensitivity essential to the Philippine pedagogical tradition (Fitria, 2023; Louis & ElAzab, 2023; Chiu et al., 2024). One participant noted, *"AI helps in generating quiz items and giving immediate feedback, but it doesn't understand the emotional state of my students,"* underscoring that while AI contributes to efficiency, it lacks the emotional intelligence necessary for addressing diverse student needs (Nikitina & Ishchenko, 2024). Similarly, another educator remarked, *"These tools allow me to save time on*

repetitive tasks, giving me more opportunities to focus on mentoring and values formation," reflecting the belief that AI's primary value lies in augmenting rather than replacing human instruction. However, some participants resisted over-reliance on AI, with one teacher cautioning, *"Relying too much on these systems risks weakening our professional judgment and diminishing the essence of teaching."* These insights reveal that AI adoption must be framed within a teacher-centric paradigm, ensuring that integration strategies remain ethical, inclusive, and context-driven, while safeguarding the relational and moral dimensions of education that technology cannot replicate.

Theme 2: The Irreplaceable Human Touch in Education

Educators underscored that emotional intelligence, mentorship, and contextual sensitivity remain indispensable components of teaching, qualities that no form of Artificial Intelligence (AI) can adequately replicate in the Philippine educational landscape (Tseng & Warschauer, 2023; Igbokwe, 2023). As one professor from Mindanao reflected, *"No AI can console a grieving student or encourage a shy learner to speak up. That requires empathy,"* highlighting that effective teaching extends beyond content delivery to embrace mentorship, life guidance, and moral formation. Another teacher affirmed, *"Our value as educators lies in the relationships we build with students, not in the efficiency of automated tools,"* a sentiment that reinforces the irreplaceability of human presence in education. While some participants acknowledged that AI can support lesson personalization and administrative efficiency (Pratama et al., 2023), others warned, *"Depending too much on AI may risk eroding the compassionate and ethical foundations of teaching."* These insights support existing scholarship that stresses the necessity of interpersonal connection, ethical discernment, and situational awareness in pedagogy, capacities that remain uniquely human and essential for nurturing holistic student development (Bower et al., 2024). Thus, AI adoption must be situated within a human-AI collaborative framework that upholds the affective and ethical dimensions of teaching rather than attempting to replace them.

Theme 3: Challenges in Digital and AI Readiness

Respondents emphasized that the uneven state of digital and AI readiness in the Philippines, particularly in rural and under-resourced schools, poses a critical barrier to equitable adoption of emerging technologies in education (Campued et al., 2023; Karan & Angadi, 2025). One public school teacher in Bicol shared, *"Most of our students don't even have stable internet, let alone access to AI tools,"* illustrating how infrastructural limitations restrict meaningful participation in AI-enhanced learning. Another participant explained, *"Without proper training, even the best technologies will remain underutilized by teachers,"* underscoring the pressing need for sustained capacity building and professional development. However, a contrasting view emerged when a respondent noted, *"If we keep waiting for perfect conditions, we may never experience the potential benefits of AI,"* suggesting that cautious but incremental adoption could still be pursued. These perspectives reflect broader concerns that premature or uneven implementation of AI risks exacerbating existing educational inequalities unless guided by realistic assessments of institutional readiness (Holmström, 2022). Scholars further argue that AI integration requires a holistic framework addressing infrastructure, human capital, and data systems, elements that remain insufficient across many Philippine institutions (Hiniduma et al., 2025). To achieve equitable outcomes,

policymakers must therefore prioritize investment in infrastructure, training, and ethical frameworks to ensure that AI serves as a tool for inclusivity rather than a driver of exclusion.

Theme 4: Ethical and Pedagogical Reflections on AI Integration

Educators expressed deep apprehensions about the ethical and pedagogical implications of Artificial Intelligence (AI) integration, particularly concerning data privacy, academic integrity, and the potential deskilling of teachers (Khreisat et al., 2024; Bibi et al., 2024). One participant cautioned, *"If we rely too much on AI, we risk losing the soul of teaching—critical thinking, compassion, and values formation,"* reflecting a fear that education could devolve into mechanized processes devoid of human essence. Another teacher added, *"Safeguards must be in place so that AI supports rather than replaces our professional judgment,"* emphasizing the necessity of ethical frameworks that preserve teacher agency. However, a contrasting view surfaced when a respondent remarked, *"AI may actually strengthen our role by removing repetitive tasks, giving us more time to focus on values-based education,"* suggesting that cautious integration could empower rather than diminish educators. These perspectives echo scholarly arguments that while AI provides operational efficiency, it must not override ethical imperatives or compromise the teacher's central role in fostering character and compassion (Eden et al., 2024; Nurhasanah & Nugraha, 2023). To ensure responsible adoption, educators strongly advocated for national policies that enforce safeguards, embed ethical literacy into training, and align AI use with pedagogical integrity, thereby affirming that technology should enhance rather than erode the moral and relational dimensions of teaching.

Discussion

The findings of this study demonstrated that Filipino educators perceived Artificial Intelligence (AI) not as a threat to their professional identity but as a complementary tool that could enhance instructional delivery. Participants recognized the utility of AI in automating routine tasks such as grading, quiz construction, and real-time feedback, yet consistently underscored its inability to replicate emotional intelligence, moral discernment, and situational awareness. This affirmed earlier studies, which noted that AI, while efficient in performing administrative and repetitive functions, remained insufficient in providing mentorship, values formation, and affective engagement—elements that form the cornerstone of Philippine educational philosophy (Chounta et al., 2022; Aure & Cuenca, 2024). Consequently, educators advocated for a model of AI integration that reinforced rather than supplanted relational pedagogy, ensuring that technological tools complemented human-centered teaching.

Educators further emphasized the potential of AI tools to facilitate instructional personalization and alleviate administrative burdens, thus allowing them to devote more attention to student well-being and differentiated learning strategies. This optimism mirrored prior research suggesting that AI could enhance pedagogical efficiency by reducing teacher workload and supporting classroom realities without undermining autonomy (Umali, 2024; Chiu et al., 2024). In contexts characterized by large class sizes and high administrative demands, participants noted that AI could function as a resource to strengthen classroom management and instructional planning, provided its use remained anchored in teacher-led objectives. Such perspectives highlighted that successful AI integration depended not on technological substitution but on maintaining educator control, which

positioned AI as an enabler of reflective and intentional pedagogy.

Despite these advantages, participants identified systemic barriers to equitable adoption, particularly in under-resourced and rural schools. Many educators reported inadequate infrastructure, unreliable internet connectivity, limited training opportunities, and outdated hardware, which hindered their ability to meaningfully implement AI tools. These concerns echoed findings in previous studies documenting that Philippine schools remained unevenly prepared for digital transformation and AI integration (Bautista et al., 2024; Gamad et al., 2025). Without systemic interventions, AI adoption risked intensifying educational inequalities by privileging well-resourced urban institutions over marginalized rural communities. The findings, therefore, underscored the need for comprehensive strategies that included infrastructure development, AI-focused teacher training, and curricular reforms embedding digital competencies, thereby ensuring readiness across diverse educational contexts.

Ethical concerns also emerged as a salient theme, particularly around data privacy, surveillance, plagiarism, and the potential deskilling of teachers. Participants expressed apprehension that generative AI tools might facilitate academic dishonesty while simultaneously eroding the integrity of classroom interactions. These concerns aligned with recent scholarship emphasizing the urgency of ethical frameworks to guide AI adoption in education, particularly in safeguarding academic integrity and protecting sensitive learner data (Khatri & Karki, 2023; Rane et al., 2024; Armstrong, 2024). In the Philippine setting, where education is strongly tied to moral formation and civic responsibility, these risks took on heightened importance. To address them, participants recommended that institutions embed digital ethics into teacher training and curricular frameworks, ensuring that the integration of AI strengthened rather than compromised ethical practice.

Finally, participants advocated for participatory approaches to AI integration, emphasizing that educators should be actively involved in the co-design and implementation of technological innovations. They argued that AI systems developed without teacher input risked misalignment with classroom realities and cultural values. This perspective was consistent with recommendations in the literature, which called for stakeholder collaboration, human-centered learning analytics, and culturally grounded design processes to ensure equitable adoption (Topali et al., 2025). Teachers emphasized the importance of national consultation, pilot testing, and continuous feedback mechanisms to safeguard contextual relevance and inclusivity. These findings highlighted that teacher agency must remain central to AI policymaking and implementation if technology is to be responsibly integrated into the Philippine education system.

In sum, the results underscored that the successful integration of AI in Philippine education required a holistic and ethically anchored strategy that placed human values at the center. Rather than replacing educators, AI should be regarded as a supportive assistant that augments instructional delivery while preserving the irreplaceable dimensions of empathy, mentorship, and ethical discernment. To achieve this vision, sustained investment in infrastructure, comprehensive professional development, ethical governance frameworks, and participatory policymaking was deemed essential. By empowering teachers as active agents of technological change, the Philippine education system could embrace AI in a manner that was future-ready, inclusive, and fundamentally human-centered.

Conclusion

This study investigated the lived experiences and professional perspectives of Filipino educators regarding the integration of Artificial Intelligence (AI) into the Philippine education system. Using a qualitative phenomenological design, the findings revealed that educators widely perceived AI as a supportive instructional mechanism rather than a replacement for teachers. While participants acknowledged its value in enhancing efficiency through automated assessment, personalized feedback, and content generation, they consistently emphasized AI's inability to reproduce qualities essential to effective teaching, such as empathy, moral discernment, and contextual responsiveness. These results affirmed the centrality of human agency in preserving the values-based and culturally embedded nature of Philippine education.

The study further identified structural and ethical barriers to responsible AI adoption, including insufficient digital infrastructure, limited teacher training, and concerns related to data privacy, academic integrity, and potential teacher deskilling. Such challenges underscored the need for a cautious, inclusive, and teacher-centered model of integration. Educators emphasized that meaningful AI adoption must preserve their role as mentors, moral guides, and relational anchors in the classroom. Nonetheless, this research carried certain limitations. The purposive sample, while regionally and institutionally diverse, may not fully capture the breadth of educator experiences nationwide. Moreover, the rapidly evolving nature of AI technologies renders these findings contextually bounded and time-sensitive. Future inquiries should therefore include longitudinal studies on evolving teacher perceptions, comparative analyses across national settings, and mixed-method designs evaluating AI's pedagogical outcomes and learner impacts.

Recommendations

The integration of AI into Philippine education should follow a teacher-centric framework that prioritizes human values alongside technological innovation. AI tools must function as pedagogical allies—supporting lesson planning, feedback systems, classroom management, and content enhancement—while ensuring that relational pedagogy, ethical reasoning, and affective engagement remain firmly within the teacher's domain. To achieve this, the Department of Education (DepEd) and the Commission on Higher Education (CHED) should institutionalize national training programs that embed AI literacy within both pre-service and in-service teacher education. These programs must extend beyond technical proficiency to address ethical considerations, pedagogical adaptability, and contextual responsiveness.

Policymakers must also prioritize investments in digital infrastructure, particularly in under-resourced rural schools, to address disparities in connectivity, device accessibility, and technical support. Such interventions are essential to preventing the marginalization of disadvantaged learners and ensuring inclusive participation in AI-driven innovations. Equally important is the establishment of robust ethical frameworks and regulatory safeguards that address issues of data privacy, algorithmic bias, academic integrity, and professional deskilling. These policies should be transparent, grounded in Philippine values, and inclusive of diverse stakeholder perspectives, with teachers playing a central role in governance.

Finally, participatory design and collaborative decision-making must underpin AI integration. Teachers should be engaged as co-creators in the development, pilot-testing, and continuous refinement of AI systems to ensure alignment with classroom realities and cultural contexts. National dialogues that bring together educators, policymakers, technologists, and civil society are critical for shaping a shared vision of AI in Philippine education. Public engagement campaigns and cross-sector partnerships can further facilitate responsible innovation, helping to build a sustainable, equitable, and human-centered education system in the digital age.

References

Armstrong, C. (2024). Towards Bridging the Ethical Gap in Using Artificial Intelligence Writing Tools in Academic and Research Writing. *International Journal of Global Community*, *7*(1), 93-104.

Aure, P. A., & Cuenca, O. (2024). Fostering social-emotional learning through human-centered use of generative AI in business research education: an insider case study. *Journal of Research in Innovative Teaching & Learning*, *17*(2), 168-181.

Bai, X. (2024). The role and challenges of artificial intelligence in information technology education. *Pacific International Journal*, *7*(1), 86-92.

Balaquiao, E. C. (2024). Optimizing students' performance through artificial intelligence (AI) technology: a gamified approach to smart learning environment. *Journal of Pedagogy and Education Science*, *3*(02), 104-114.

Bautista, A., Estrada, C., Jaravata, A. M., Mangaser, L. M., Narag, F., Soquila, R., & Asuncion, R. J. (2024). Preservice Teachers' Readiness towards Integrating AI-Based Tools in Education: A TPACK Approach. *Educational Process: International Journal*, *13*(3), 40-68.

Bibi, A., Yamin, S., Natividad, L. R., Rafique, T., Akhter, N., Fernandez, S. F., & Samad, A. (2024). Navigating the ethical landscape: AI integration in education. *Educational Administration: Theory and Practice*, *30*(6), 1579-1585.

Borbon, N. M. D., Alcoba, R. C., Palupit, A. D., Alfaro, C. M., Repollo, N. A. M., Vizconde, A. M. L., & Samaniego, A. S. (2025). Exploring the Lived Experiences of Teachers with International Macro Exposure: Impacts on Professional Identity, Pedagogy, and Global Educational Perspectives. *International Journal of Learning, Teaching and Educational Research*, *24*(3), 480-499.

Bower, M., Torrington, J., Lai, J. W., Petocz, P., & Alfano, M. (2024). How should we change teaching and assessment in response to increasingly powerful generative Artificial Intelligence? Outcomes of the ChatGPT teacher survey. *Education and Information Technologies*, *29*(12), 15403-15439.

Campued, J. C., Papa, D. M. M., de Castro, A. C., & Malang, B. P. (2023). Exploring Challenges and Opportunities: Evaluating the Awareness and Readiness of Selected Government Agencies in Adopting Artificial Intelligence (AI). *International Journal of Multidisciplinary: Applied Business and Education Research*, *4*(12), 4504-4517.

Capinding, A. T., & Dumayas, F. T. (2024). Transformative Pedagogy in the Digital Age: Unraveling the Impact of Artificial Intelligence on Higher Education Students. *Problems of Education in the 21st Century*, *82*(5), 630-657.

Carvajal, A. L. P., Fernandez, T. M., Pangilinan, A. M., Obod, M. M., Amihan, S. R., Sanchez, R. D., & Sanchez,

J. J. D. (2025). Future-Proofing Teachers in Reframing Teacher Education Curriculum in the Philippines: Basis for Policy Recommendations. *International Journal of Open-access, Interdisciplinary and New Educational Discoveries of ETCOR Educational Research Center (iJOINED ETCOR)*, *4*(2), 235-252.

Chiu, T. K., Moorhouse, B. L., Chai, C. S., & Ismailov, M. (2024). Teacher support and student motivation to learn with Artificial Intelligence (AI) based chatbot. *Interactive Learning Environments*, *32*(7), 3240-3256.

Chounta, I. A., Bardone, E., Raudsep, A., & Pedaste, M. (2022). Exploring teachers' perceptions of artificial intelligence as a tool to support their practice in Estonian K-12 education. International journal of artificial intelligence in education, 32(3), 725-755.

David, R. M. T., & Maroma, A. P. (2025). Exploring the Integration of ChatGPT in Pre-Service Teacher Education: Benefits, Challenges and Pedagogical Implications. *International Journal of Multidisciplinary: Applied Business and Education Research*, *6*(3), 1333-1342.

Eden, C. A., Chisom, O. N., & Adeniyi, I. S. (2024). Integrating AI in education: Opportunities, challenges, and ethical considerations. *Magna Scientia Advanced Research and Reviews*, *10*(2), 006-013.

Fitria, T. N. (2023). The use of artificial intelligence in education (AIED): can AI replace the teacher's role?. *Epigram*, *20*(2), 165-187.

Gamad, L. C., Khayduangta, M. D., Birdsell, N. N., Prepotente, M. N. A., Sursigis, P. L., Hugo, K. K. G., & Princena, M. A. T. (2025). Global Filipino Teachers' Readiness on Education 5.0: Reinforcing the Status Quo. *Review of Integrative Business and Economics Research*, *14*(2), 519-538.

Hiniduma, K., Byna, S., & Bez, J. L. (2025). Data readiness for AI: A 360-degree survey. *ACM Computing Surveys*, *57*(9), 1-39.

Holmström, J. (2022). From AI to digital transformation: The AI readiness framework. *Business Horizons*, *65*(3), 329-339.

Karan, B., & Angadi, G. R. (2025). Artificial intelligence integration into school education: A review of Indian and foreign perspectives. *Millennial Asia*, *16*(1), 173-199.

Khatri, B. B., & Karki, P. D. (2023). Artificial intelligence (AI) in higher education: Growing academic integrity and ethical concerns. *Nepalese Journal of Development and Rural Studies*, *20*(01), 1-7.

Khreisat, M. N., Khilani, D., Rusho, M. A., Karkkulainen, E. A., Tabuena, A. C., & Uberas, A. D. (2024). Ethical implications of AI integration in educational decision making: Systematic review. *Educational Administration: Theory and Practice*, *30*(5), 8521-8527.

Igbokwe, I. C. (2023). Application of artificial intelligence (AI) in educational management. *International Journal of Scientific and Research Publications*, *13*(3), 300-307.

Louis, M., & ElAzab, M. (2023). Will AI replace Teacher?. *International Journal of Internet Education*, *22*(2), 9-21.

Mananay, J. A. (2024). Integrating Artificial Intelligence (AI) in Language Teaching: Effectiveness, Challenges, and Strategies. *International Journal of Learning, Teaching and Educational Research*, *23*(9), 361-382.

Nikitina, I., & Ishchenko, T. (2024). The Impact of AI on Teachers: Support or Replacement?. *Scientific Journal of Polonia University*, *65*(4), 93-99.

Ng, D. T. K., Leung, J. K. L., Su, J., Ng, R. C. W., & Chu, S. K. W. (2023). Teachers' AI digital competencies and twenty-first century skills in the post-pandemic world. *Educational technology research and*

development, *71*(1), 137-161.

Nurhasanah, S., & Nugraha, M. S. The future of learning: Ethical and philosophical implications of artificial intelligence (AI) integration in education. *Indonesian Journal of Multidiciplinary Research*, *4*(2), 341-352.

Pratama, M. P., Sampelolo, R., & Lura, H. (2023). Revolutionizing education: harnessing the power of artificial intelligence for personalized learning. *Klasikal: Journal of education, language teaching and science*, *5*(2), 350-357.

Rane, N., Shirke, S., Choudhary, S. P., & Rane, J. (2024). Education Strategies for Promoting Academic Integrity in the Era of Artificial Intelligence and ChatGPT: Ethical Considerations, Challenges, Policies, and Future Directions. *Journal of ELT Studies*, *1*(1), 36-59.

Topali, P., Ortega-Arranz, A., Rodríguez-Triana, M. J., Er, E., Khalil, M., & Akçapınar, G. (2025). Designing human-centered learning analytics and artificial intelligence in education solutions: a systematic literature review. *Behaviour & Information Technology*, *44*(5), 1071-1098.

Tseng, W., & Warschauer, M. (2023). AI-writing tools in education: If you can't beat them, join them. *Journal of China Computer-Assisted Language Learning*, *3*(2), 258-262.

Umali, J. N. D. (2024). Artificial intelligence technology management of teachers, learners motivation and challenges encountered. *Educational Research (IJMCER)*, *6*(3), 821-880.