

How Prepared are Faculty for Responsible Artificial Intelligence Integration? Evidence from a University Context

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ABSTRACT

The rapid adoption of Artificial Intelligence in higher education has created opportunities to enhance teaching, research, and academic productivity. This study examined AI utilization and governance readiness among faculty members using an explanatory sequential mixed-methods design. Data were analyzed using descriptive statistics, thematic analysis, and joint-display integration. Findings revealed high level of AI awareness, utilization, and perceived usefulness. Both quantitative and qualitative findings highlighted strong support for institutional AI policies, faculty development programs, and governance mechanisms that promote responsible AI integration. It contributes to the emerging discourse on responsible AI in higher education by proposing a multidimensional perspective of AI readiness and providing evidence to support the development of context-sensitive governance frameworks for ethical and sustainable AI adoption in universities.

Keywords: artificial intelligence in higher education, AI governance, faculty digital competence, responsible AI integration

INTRODUCTION

Artificial Intelligence (AI) has rapidly emerged as a transformative force reshaping educational systems worldwide, influencing how teaching, learning, research, and academic management are conducted in higher education institutions. As a disruptive digital innovation, AI technologies—particularly generative AI tools such as ChatGPT, Copilot, and other large language models—have introduced new possibilities for enhancing instructional delivery, automating academic tasks, supporting research productivity, and facilitating personalized learning environments (Zawacki-Richter et al., 2019; Dwivedi et al., 2023). These tools enable educators to generate learning materials, provide adaptive feedback, assist with scholarly writing, and improve efficiency in administrative functions, thereby redefining the nature of academic work in the knowledge economy.

Recent global literature highlights the growing adoption of AI tools in higher education, with faculty members using AI for instructional planning, research support, content generation, and enhancing academic productivity (Mollick & Mollick, 2023; Rudolph et al., 2023). AI-powered systems provide opportunities to improve student learning outcomes through personalized feedback, adaptive learning pathways, and enhanced engagement strategies (Chan & Hu, 2023; Schroeder et al., 2022). Empirical evidence suggests that AI integration contributes to pedagogical innovation, facilitates digital transformation, and supports intelligent decision-making in universities (Holmes et al., 2019; Zawacki-Richter et al., 2019). Moreover, AI adoption aligns with global education priorities emphasizing digital competence, adaptive learning environments, and institutional resilience in an increasingly technology-driven society (OECD, 2023; UNESCO, 2023).

Despite growing interest in AI integration, scholars emphasize that faculty attitudes, perceived usefulness, perceived ease of use, and institutional support mechanisms influence AI adoption in higher education. The Technology Acceptance Model (TAM) posits that users' acceptance of technology is largely determined by perceived usefulness and perceived ease of use, which influence behavioral intention and actual utilization (Davis, 1989; Venkatesh et al., 2003). Similarly, Diffusion of Innovation Theory suggests that compatibility, complexity, and observability shape the adoption of emerging technologies in educational settings (Rogers, 2003).

Within the Philippine higher education system, the adoption of AI technologies reflects both opportunities and structural challenges. While AI tools offer significant potential to enhance instructional effectiveness, research productivity, and institutional efficiency, disparities in digital infrastructure, faculty training, and technological literacy may influence the extent of adoption across institutions (Talidong & Toquero, 2020). Moreover, the uneven distribution of technological resources and digital competencies may contribute to variations in AI awareness and utilization among faculty members, emphasizing the importance of institutional readiness and professional development programs.

At Kalinga State University, the integration of Artificial Intelligence in academic practice reflects broader national and global efforts to promote digital transformation in higher education. Faculty members increasingly engage with AI tools to support teaching preparation, research writing, knowledge synthesis, and administrative efficiency. However, despite increasing exposure to AI technologies, institutional guidelines and governance structures remain evolving areas that require empirical investigation. Understanding faculty awareness, utilization patterns, perceived benefits, and ethical concerns is essential in developing evidence-based institutional policies that promote responsible AI integration. The absence of structured governance frameworks may lead to inconsistent practices, potential misuse, or underutilization of AI technologies, highlighting the need for context-specific research to guide policy formulation.

Anchored in these gaps, this study aims to investigate the utilization and governance of Artificial Intelligence among faculty members at Kalinga State University using an explanatory sequential mixed-methods design. Specifically, the study examines the extent of AI utilization across teaching, research, administrative, and professional tasks; explores faculty experiences related to perceived benefits, challenges, ethical considerations, and institutional support; and integrates quantitative and qualitative findings to generate meta-inferences that inform the development of evidence-based institutional guidelines for responsible AI governance. By providing empirical insights into AI adoption practices within a Philippine higher education context, the study contributes to the growing body of literature on responsible AI integration. It supports institutional strategies aligned with digital transformation, innovation, and sustainable education.

LITERATURE REVIEW

This study is primarily anchored in the Technology Acceptance Model (TAM) and the Responsible Artificial Intelligence (Responsible AI) Framework. Together, these perspectives provide a comprehensive lens for examining both faculty adoption of Artificial Intelligence (AI) technologies and the governance considerations necessary for their responsible integration in higher education. The

Technology Acceptance Model (TAM) developed by Davis (1989) explains how users adopt new technologies based on two key determinants: perceived usefulness and perceived ease of use. According to TAM, individuals are more likely to utilize a technology when they believe it enhances their performance and can be used with minimal effort. In the context of higher education, faculty members' utilization of AI technologies is influenced by their perceptions that AI improves teaching effectiveness, research productivity, academic writing, and administrative efficiency. TAM therefore provides a suitable framework for examining patterns of AI utilization and faculty readiness to integrate AI into academic practice.

To complement TAM, this study adopts the Responsible AI Framework, which emphasizes the ethical, transparent, accountable, and human-centered use of Artificial Intelligence. Responsible AI principles highlight the importance of fairness, privacy, transparency, accountability, and human oversight in the development and deployment of AI systems (UNESCO, 2021; Floridi et al., 2018). In higher education, these principles are particularly relevant because AI adoption raises concerns regarding academic integrity, algorithmic bias, misinformation, data privacy, and the responsible use of AI-generated content. The Responsible AI Framework therefore provides a basis for examining faculty ethical awareness, perceived risks, and governance needs associated with AI integration.

While not serving as primary theoretical foundations, the study also acknowledges insights from the Unified Theory of Acceptance and Use of Technology (UTAUT) and Digital Literacy perspectives. UTAUT highlights the influence of institutional support, facilitating conditions, and social factors on technology adoption (Venkatesh et al., 2003), whereas Digital Literacy perspectives emphasize the competencies required for effective and responsible engagement with emerging technologies. These perspectives help contextualize faculty experiences but remain secondary to the study's primary focus on technology acceptance and responsible governance.

Taken together, TAM explains why faculty members adopt AI technologies, while the Responsible AI Framework explains how AI should be integrated responsibly within higher education institutions. The combination of these perspectives supports the investigation of AI utilization, ethical awareness, governance readiness, and institutional policy needs, providing a foundation for developing evidence-based recommendations for responsible AI integration in higher education.

AI as an Enabler of Faculty Productivity and Academic Efficiency

A dominant theme across recent studies is the capacity of Artificial Intelligence to enhance faculty productivity by automating routine academic tasks and supporting knowledge-intensive work. Generative AI systems, intelligent writing assistants, and natural language processing tools have been reported to

assist educators in lesson preparation, content generation, academic writing, literature synthesis, and administrative communication. Studies consistently indicate that AI reduces the time required for instructional planning and scholarly writing while improving the organization and clarity of academic outputs (Holmes et al., 2019; Kamalov et al., 2023; Malik et al., 2023). In research settings, AI facilitates information retrieval, manuscript preparation, and synthesis of large volumes of literature, allowing faculty to devote greater attention to critical analysis and knowledge creation. This body of evidence suggests that AI functions primarily as a productivity-enhancing technology that supports, rather than replaces, professional academic work.

Transformation of Faculty Roles and Pedagogical Practices

The literature further reveals that AI is reshaping traditional instructional roles in higher education. Rather than serving solely as content transmitters, educators increasingly assume facilitative and supervisory functions as AI becomes integrated into learning environments. AI-powered systems support personalized learning, adaptive instruction, and automated feedback mechanisms, enabling faculty to focus on mentoring, critical discussion, and higher-order learning activities. Studies emphasize that effective AI integration requires educators to redesign pedagogical approaches and develop competencies in human–AI collaboration. The emergence of AI-supported teaching environments, therefore, signals a shift from information delivery toward facilitation of learning, innovation, and student engagement.

Strains on Academic Integrity, Professional Judgment, and Ethical Responsibility

Alongside its benefits, AI adoption introduces significant ethical and professional concerns. A recurring theme in the literature involves risks related to academic integrity, authorship, plagiarism, misinformation, and overreliance on AI-generated outputs. Scholars caution that excessive dependence on AI may weaken critical thinking and reduce opportunities for independent knowledge construction. Furthermore, AI-generated content may contain inaccuracies, fabricated references, or embedded biases, requiring educators to exercise continuous professional judgment and verification. The literature consistently argues that AI should complement human expertise rather than replace intellectual responsibility. Ethical AI use, therefore, depends on maintaining transparency, accountability, originality, and scholarly rigor in academic practice.

Digital Competence and Faculty Readiness for AI Integration

Digital competence and faculty readiness are critical factors in the successful integration of Artificial Intelligence (AI) within higher education, particularly as institutions navigate the transition from adoption to high-quality interaction (Dhamija & Dhamija, 2025). A primary driver for faculty interest in AI integration is the escalating administrative burden in contemporary higher education. Faculty members are often occupied with paperwork, accreditation demands, and the time-consuming process of creating high-quality assignments and rubrics. AI tools like ChatGPT can streamline these tasks, allowing educators to generate diverse, high-quality prompts and comprehensive evaluation criteria within seconds.

Institutional Governance and Responsible AI Integration

According to Gas-ib et. al. (2026), institutional governance serves as a foundational capacity-building strategy for the responsible integration of Artificial Intelligence (AI) in higher education. Effective governance moves beyond the mere adoption of technology to fostering high-quality interaction between students, faculty, and AI tools through strategic planning and ethical oversight (Sampah, 2026). Responsible integration requires institutions to transition from top-down policy rhetoric to evidence-based frameworks that address the practical realities of AI usage. In addition, few studies have employed mixed-methods approaches that integrate quantitative patterns of AI use with qualitative insights into faculty experiences and governance needs. To address these gaps, the present study investigates responsible AI governance readiness among faculty members in a Philippine state university by examining AI utilization, ethical awareness, perceived risks, and governance needs through an explanatory sequential mixed-methods design, thereby contributing context-specific evidence for responsible AI integration in higher education.

RESEARCH METHOD

This study employed an explanatory sequential mixed-methods design to examine faculty utilization and governance of Artificial Intelligence (AI) at Kalinga State University. Quantitative data were collected first through a structured survey to determine levels of AI awareness, utilization, perceived usefulness, ethical awareness, and governance needs. Qualitative interviews were subsequently conducted to explain and contextualize the survey findings. Integration of quantitative and qualitative results was achieved through joint display analysis and meta-inference development to provide a comprehensive understanding of responsible AI adoption among faculty members.

Participants

The participants of the study consisted of ninety-two (92) faculty members from Kalinga State University representing diverse academic disciplines and professional functions related to teaching, research, extension, and administrative services. Respondents were selected using purposive sampling to ensure that participants possessed relevant exposure to digital technologies and potential engagement with Artificial Intelligence (AI) tools in academic practice. Purposive sampling was used because the study required faculty members who had relevant experience with digital technologies and potential exposure to AI in teaching, research, extension, and administrative work. Participants were intentionally selected to provide informed insights on AI utilization, benefits, challenges, ethical concerns, and governance needs. For the qualitative phase, criterion-based purposive sampling was employed to select faculty with varying levels of AI awareness, digital proficiency, and disciplinary backgrounds to explain and enrich the quantitative findings. This approach is appropriate for explanatory sequential mixed-methods research because it prioritizes information-rich participants who can provide detailed, context-specific perspectives rather than statistical representativeness. The profile of respondents indicated varying levels of digital proficiency: 41.3% advanced, 39.1% intermediate, and 19.6% basic, suggesting that the majority of faculty members possessed moderate to high levels of technological competence necessary for meaningful AI utilization. In terms of academic unit distribution, the respondents represented a broad cross-section of colleges, including the College of Business, Accountancy and Administration (22.8%), College of Liberal Arts and Social Sciences (13.0%), College of Advanced Studies (12.0%), College of Engineering and Information Technology (8.7%), College of Forestry (8.7%), College of Arts, Forestry and Environmental Studies (7.6%), College of Criminal Justice Education (6.5%), College of Education (6.5%), College of Health and Natural Sciences (5.4%), College of Agriculture (4.3%), and the College of Public Administration and Indigenous Governance (4.3%). The inclusion of faculty from varied disciplinary contexts ensured representation of diverse academic environments where AI tools may be applied differently depending on instructional, research, and administrative requirements.

For the qualitative phase, twelve (12) faculty members were selected through criterion-based sampling to provide in-depth perspectives regarding AI awareness, utilization practices, perceived benefits, challenges, ethical considerations, and institutional support. This sampling approach aligns with explanatory sequential mixed-methods procedures, in which qualitative participants are intentionally selected to explain quantitative findings and to strengthen the development of meta-inferences (Creswell & Plano Clark, 2023). The diversity in digital proficiency and academic specialization enhances the

study's contextual relevance and supports a comprehensive understanding of the utilization and governance of Artificial Intelligence in higher education settings (Davis, 1989; Venkatesh et al., 2003).

Table 1: *Profile of Respondents According to Digital Proficiency (N = 92)*

Digital Proficiency Level	Frequency	Percentage
Basic	18	19.6
Intermediate	36	39.1
Advanced	38	41.3
Total	92	100

Table 2: *Distribution of Respondents by Academic Unit*

Academic Unit	Frequency	Percentage
College of Business, Accountancy and Administration (CBAA)	21	22.8
College of Liberal Arts and Social Sciences (CLASS)	12	13.0
College of Advanced Studies	11	12.0
College of Engineering and Information Technology (CEIT)	8	8.7
College of Forestry (CF)	8	8.7
College of Agriculture (CAGRI)	4	4.3
College of Criminal Justice Education (CCJE)	6	6.5
College of Education (COED)	6	6.5
College of Health and Natural Sciences (CHNS)	5	5.4
College of Arts, Forestry and Environmental Studies (CAFES)	7	7.6
College of Public Administration and Indigenous Governance	4	4.3
Total	92	100

RESULTS

Extent of Utilization of Artificial Intelligence among faculty members in relation to teaching, research, administrative tasks, and other professional activities.

Table 3. *AI Awareness and Literacy of Faculty Members*

Indicator	Mean	Interpretation
Familiarity with Artificial Intelligence	4.6087	strongly agree
Ability to identify AI tools	4.0870	agree
Understanding AI strengths and limitations	4.2283	strongly agree
Awareness of AI errors or bias	4.4022	strongly agree
Awareness of ethical concerns in AI use	4.3152	strongly agree
Grand Mean	4.33	strongly agree

Table 3 indicates that faculty members demonstrate a high level of Artificial Intelligence (AI) awareness and literacy, as reflected in the overall grand mean of 4.33 (Strongly Agree). Faculty respondents reported very high familiarity with AI concepts ($M = 4.6087$) and strong awareness of AI errors or potential bias ($M = 4.4022$), suggesting that educators are not only exposed to AI technologies but also critically understand their limitations. High ratings for understanding AI strengths and limitations ($M = 4.2283$) and awareness of ethical concerns ($M = 4.3152$) further indicate that faculty members approach AI integration with caution and professional responsibility. The ability to identify AI tools ($M = 4.0870$) suggests that generative AI platforms and digital assistants are increasingly embedded in academic work processes, particularly in teaching preparation, research writing, and knowledge organization. These results suggest that faculty members possess the foundational competencies necessary for responsible AI integration in higher education contexts. Similarly, global research highlights that AI awareness supports innovation in instructional design, improves research productivity, and enhances academic decision-making processes in universities (Holmes et al., 2019; Zawacki-Richter et al., 2019).

Within the Philippine higher education system, the high level of AI awareness among KSU faculty suggests institutional readiness for digital transformation despite existing disparities in technological infrastructure and training opportunities. Empirical evidence indicates that faculty in Philippine higher education institutions increasingly use AI-powered tools to support academic writing, literature synthesis, and instructional material development (Jala, 2025; Malik et al., 2023). The high level of awareness regarding ethical concerns also reflects faculty sensitivity to issues such as academic integrity, algorithmic bias, and responsible use of AI outputs, which are widely recognized as critical considerations in AI integration in education (Chen, 2023; Okorie et al., 2024; Yu, 2024). Furthermore, recent studies emphasize that AI adoption in developing-country contexts requires culturally responsive implementation strategies that account for digital competence, contextual constraints, and institutional policy support (Gkrimpizi et al., 2023; Saputra et al., 2023; Slimi, 2023). The results, therefore, suggest that faculty members at Kalinga State University demonstrate a balanced orientation toward AI, characterized by openness to innovation while maintaining awareness of ethical responsibilities. Such readiness provides a strong foundation for developing evidence-based institutional policies that support responsible AI governance and promote quality education aligned with Sustainable Development Goal 4 (Chan & Hu, 2023; Mollick & Mollick, 2023).

Table 4: *Frequency of Access to and Exposure to AI Tools*

AI Tool Category	Mean	Interpretation
Generative AI tools (ChatGPT, Gemini, Copilot)	3.8261	often
Grammar and writing assistants	3.6196	often
AI-powered search engines	3.4457	sometimes
AI tools for data analysis	3.2609	sometimes
AI tools integrated in LMS/software	3.4239	sometimes
Grand Mean	3.52	often

Table 4 indicates that faculty members at Kalinga State University often utilize Artificial Intelligence tools, with an overall grand mean of 3.52, suggesting that AI technologies are becoming embedded in routine academic workflows. Generative AI tools such as ChatGPT, Gemini, and Copilot obtained the highest mean ($M = 3.8261$), indicating that faculty frequently rely on these tools for content generation, lesson preparation, idea development, and academic writing support. Grammar and writing assistants also obtained high usage ($M = 3.6196$), suggesting that AI is commonly used to improve clarity, coherence, and language accuracy in instructional materials and research manuscripts. The findings align with recent studies indicating that faculty members perceive AI tools as valuable resources that enhance efficiency, automate repetitive tasks, and support instructional innovation (Holmes et al., 2019; Zawacki-Richter et al., 2019; Li, 2024). Similarly, generative AI technologies have been shown to improve teaching preparation and writing processes while enabling educators to allocate more time to higher-order cognitive tasks such as critical analysis and knowledge synthesis (Li, 2024; Cacho, 2024; Yu, 2024; Southworth et al., 2023).

Meanwhile, AI-powered search engines ($M = 3.4457$), AI tools for data analysis ($M = 3.2609$), and AI tools integrated into learning management systems ($M = 3.4239$) were interpreted as “Sometimes,” indicating that more specialized AI applications are still emerging in faculty practice. Research further emphasizes that faculty adoption of AI is shaped by perceived usefulness, ease of use, and institutional support, as explained by the Technology Acceptance Model (Davis, 1989; Venkatesh et al., 2003). Studies also highlight that AI can enhance decision-making, personalize learning environments, and support administrative efficiency when strategically integrated into institutional systems (Daniel et al., 2026; Kabudi et al., 2021; Kamalov et al., 2023). The findings suggest that KSU faculty demonstrate a growing familiarity with AI technologies, particularly generative AI tools, while the utilization of more advanced AI applications may require stronger institutional support, targeted training programs, and structured AI governance policies to ensure responsible and sustainable integration in higher education.

Table 5: *Purposes of AI Use in Academic and Professional Tasks*

Purpose of AI Use	Mean	Interpretation
Brainstorming ideas	3.6957	often
Drafting written outputs	3.6848	often
Summarizing readings	3.5217	often
Lesson planning / instructional design	3.5326	often
Assessment creation	3.2065	sometimes
Administrative tasks	3.0326	sometimes
Research assistance	3.7826	often
Learning support	3.8804	often
Grand Mean	3.54	often

Table 5 indicates that faculty members at Kalinga State University often utilise Artificial Intelligence (AI) to support various academic and professional tasks (Grand Mean = 3.54). Among the most frequently reported purposes of AI use were learning support ($M = 3.8804$), research assistance ($M = 3.7826$), brainstorming ideas ($M = 3.6957$), and drafting written outputs ($M = 3.6848$), suggesting that AI tools are commonly integrated into knowledge construction, scholarly productivity, and instructional preparation. The relatively high utilisation of AI for summarising readings ($M = 3.5217$) and lesson planning ($M = 3.5326$) further indicates that faculty perceive AI as a cognitive support tool that enhances efficiency in organising instructional content and synthesising information. These findings align with global studies showing that generative AI tools support academic writing, automate routine intellectual tasks, and assist educators in designing instructional materials more efficiently (Holmes et al., 2019; Zawacki-Richter et al., 2019). Similarly, evidence from Philippine higher education institutions suggests that AI-powered writing assistance tools enhance research productivity by facilitating literature review, summarisation, and drafting, allowing faculty to focus more on critical analysis and knowledge creation (Santiago et al., 2023). The frequent use of AI for idea generation also supports findings that AI enhances creativity, innovation, and problem-solving processes in academic work, particularly when faculty use AI as a collaborative cognitive partner rather than a replacement for human expertise (Kamalov et al., 2023; Malik et al., 2023).

However, the results also indicate that AI is used only sometimes for assessment creation ($M = 3.2065$) and administrative tasks ($M = 3.0326$), suggesting that while faculty recognise AI's academic value, its application in institutional and evaluative processes remains cautious and selective. This pattern reflects concerns regarding accuracy, reliability, and ethical implications of AI-generated outputs, particularly in high-stakes tasks such as grading and evaluation (Chen, 2023; Yu, 2024). Studies emphasize that although AI can automate routine processes and improve efficiency, educators remain mindful of maintaining

academic integrity, ensuring the validity of assessment materials, and preserving human judgment in decision-making (Matthews & Potter, 2026).

Table 6: *Perceived Usefulness and Ease of Use of AI*

Indicator	Mean	Interpretation
AI improves efficiency	4.0435	agree
AI improves quality of outputs	4.0109	agree
AI tools are easy to use	4.0761	agree
AI saves time	4.2391	strongly agree
AI fits academic tasks	4.0543	agree
Grand Mean	4.08	agree

Table 6 indicates that faculty members at Kalinga State University generally perceive Artificial Intelligence (AI) as useful and easy to use in performing academic tasks, as reflected in the overall grand mean of 4.08 (Agree). Among the indicators, AI saves time obtained the highest mean ($M = 4.2391$, Strongly Agree), suggesting that faculty recognize AI as an efficient tool that supports productivity in teaching preparation, research writing, and administrative documentation. Similarly, respondents agreed that AI tools are easy to use ($M = 4.0761$), improve efficiency ($M = 4.0435$), enhance the quality of outputs ($M = 4.0109$), and fit academic tasks ($M = 4.0543$). These findings indicate that faculty members perceive AI as a practical support technology that complements rather than replaces human expertise in academic work. The results affirm the Technology Acceptance Model (TAM), which posits that perceived usefulness and perceived ease of use significantly influence technology adoption and integration behaviors (Davis, 1989; Venkatesh et al., 2003). Studies show that AI tools can enhance instructional planning, generate learning materials, and assist in research processes, enabling educators to focus on higher-order tasks such as critical analysis and knowledge synthesis (Holmes et al., 2019; Zawacki-Richter et al., 2019). Evidence from Philippine higher education also demonstrates that AI-powered writing and research tools support academic productivity by facilitating literature review, summarization, and manuscript preparation, thereby improving efficiency in scholarly work (Santiago et al., 2023).

At Kalinga State University, the positive perception of AI's usefulness suggests that faculty members are increasingly recognizing AI's role in supporting flexible teaching practices and improving work efficiency, despite varying levels of digital proficiency. The finding that AI is well-suited to academic tasks aligns with studies indicating that generative AI can enhance instructional innovation, personalize learning materials, and assist educators in managing academic workload more effectively (Chan & Hu, 2023; Cacho, 2024). These findings suggest that KSU faculty demonstrate readiness to integrate AI into teaching, research, and professional tasks, highlighting the need for structured institutional

support systems that promote responsible AI adoption aligned with quality education and innovation goals in higher education (Daniel et al., 2026).

Table 7: *Ethical Awareness and Responsible AI Use*

Indicator	Mean	Interpretation
Concern about academic honesty	4.2935	strongly agree
Avoid submitting AI work as own	4.1630	agree
AI use should follow university policy	4.1957	agree
Willingness to comply with AI policies	4.2283	strongly agree
Concern about data privacy	4.2500	strongly agree
Awareness of AI bias	4.2826	strongly agree
Ability to decide when not to use AI	4.2717	strongly agree
Grand Mean	4.24	strongly agree

Table 7 shows that faculty members at Kalinga State University demonstrate a high level of ethical awareness and responsible use of Artificial Intelligence, as reflected in the grand mean of 4.24 (Strongly Agree). Faculty expressed strong concern about academic honesty ($M = 4.2935$) and emphasized the importance of not submitting AI-generated work as their own ($M = 4.1630$), indicating a conscious effort to maintain academic integrity while utilizing emerging technologies. Similarly, strong agreement on the importance of complying with institutional AI policies ($M = 4.2283$) and the need for AI use to align with university guidelines ($M = 4.1957$) suggests that faculty members recognize the need for structured governance frameworks to guide responsible AI integration. High ratings for concern about data privacy ($M = 4.2500$) and awareness of AI bias ($M = 4.2826$) further indicate that faculty members are attentive to the broader ethical implications of AI adoption, including transparency, accountability, and potential misuse of automated outputs. The ability to decide when not to use AI ($M = 4.2717$) also suggests that faculty members demonstrate professional judgment in determining appropriate contexts for AI integration, reflecting a balanced and critical orientation toward technology adoption.

These findings support previous studies indicating that educators' awareness of ethical implications plays a crucial role in shaping responsible AI adoption and sustaining trust in AI-supported learning environments (Holmes et al., 2019; Zawacki-Richter et al., 2019; Chen, 2023; Okorie et al., 2024). In the Philippine higher education context, the strong ethical awareness observed among KSU faculty reflects a growing recognition that AI integration must be accompanied by clear institutional guidelines and professional accountability mechanisms. Evidence suggests that faculty in Philippine higher education institutions perceive AI writing and research tools as beneficial for improving efficiency and supporting scholarly productivity, but they also acknowledge risks related to overreliance, plagiarism, and reduced critical thinking when AI is used

without appropriate regulation (Santiago et al., 2023). Similarly, research highlights the need for balanced institutional guidelines to ensure that AI enhances teaching and learning while safeguarding academic integrity and human-centered educational values (Cacho, 2024; Chan & Hu, 2023). The findings suggest that faculty members at Kalinga State University are not only adopting AI tools but are also demonstrating strong ethical sensitivity that can support the development of context-responsive AI governance policies aligned with responsible innovation and Sustainable Development Goal 4 on quality education.

Table 8: *Perceived Risks and Policy Needs for AI Governance*

Indicator	Mean	Interpretation
AI may encourage overdependence	4.2826	strongly agree
AI may reduce critical thinking	4.2283	strongly agree
AI may widen inequality	4.0978	agree
AI may affect academic integrity	4.2609	strongly agree
AI bias may affect outcomes	4.1413	agree
AI may misrepresent indigenous knowledge	4.0978	agree
Need for university AI guidelines	4.3152	strongly agree
Need for institutional training	4.3696	strongly agree
Grand Mean	4.22	strongly agree

Table 8 indicates that faculty members demonstrate a high level of awareness regarding the potential risks associated with Artificial Intelligence (AI), with an overall grand mean of 4.22 (strongly agree). Respondents strongly agreed that AI may encourage overdependence (M = 4.2826) and may reduce critical thinking (M = 4.2283), reflecting concerns that excessive reliance on AI-generated outputs may weaken higher-order cognitive skills when not used with appropriate academic guidance. Faculty also strongly agreed that AI may affect academic integrity (M = 4.2609), highlighting apprehensions about plagiarism, authenticity of outputs, and the ethical boundaries of AI-assisted academic work. These findings support prior studies indicating that while AI tools can improve efficiency in content generation, literature synthesis, and instructional preparation, they may also introduce risks related to academic dishonesty, superficial learning, and reduced originality when used without proper pedagogical scaffolding (Mollick & Mollick, 2023; Chan & Hu, 2023; Yu, 2024).

Evidence from Philippine higher education contexts further confirms that AI writing tools can streamline research processes but may inadvertently encourage plagiarism or overreliance if ethical guidelines are not clearly established (Santiago et al., 2023).

The finding that even technologically proficient faculty members remain concerned about the potential misrepresentation of indigenous knowledge is particularly significant. Recent scholarship argues that generative AI systems are trained predominantly on global datasets that may underrepresent local,

indigenous, and culturally specific knowledge systems, thereby creating risks of epistemic bias and cultural distortion (Kasneci et al., 2023; UNESCO, 2023). For institutions such as Kalinga State University, which operate in culturally diverse and indigenous contexts, AI governance policies should include provisions for cultural validation, contextual review, and the responsible use of AI-generated content that involves indigenous knowledge and local cultural resources.

The findings also reveal faculty awareness of broader structural risks, including inequality (M = 4.0978), algorithmic bias (M = 4.1413), and the potential misrepresentation of indigenous knowledge (M = 4.0978), suggesting sensitivity to the socio-cultural implications of AI integration in diverse academic contexts. These concerns are consistent with literature emphasizing that AI systems may reproduce biases embedded in training datasets and may inadequately capture culturally grounded knowledge systems, thereby requiring careful contextualization and ethical oversight (Chen, 2023; Okorie et al., 2024). In response to these perceived risks, faculty strongly expressed the need for university AI guidelines (M = 4.3152) and institutional training (M = 4.3696), underscoring the importance of governance frameworks that support responsible AI adoption in higher education. Recent scholarship highlights that institutional policies, professional development programs, and ethical frameworks are necessary to ensure that AI enhances teaching innovation without compromising academic integrity or equity (Cacho, 2024; Perante et al., 2025). The results suggest that faculty members at KSU recognize both the transformative potential and the ethical complexities of AI, highlighting the need for structured governance mechanisms that promote responsible AI integration aligned with SDG 4 (Quality Education) and SDG 9 (Industry, Innovation, and Infrastructure).

Faculty experiences regarding the adoption and integration of artificial intelligence in academic practice, particularly in terms of perceived benefits, challenges, ethical considerations, and institutional support

Table 9: *Qualitative Themes on Faculty Experiences in Artificial Intelligence Adoption and Integration*

Main Themes	Categories	Sub-Categories
1. AI Awareness and Functional Understanding	Foundational Understanding of AI	- <i>Understanding AI as a support tool for teaching and research</i> - <i>Awareness of AI capabilities in generating content</i> - <i>Recognition of AI as a productivity-enhancing technology</i>
	Academic Relevance of AI	- <i>Awareness of AI applications in lesson preparation</i> - <i>Recognition of AI in organizing academic information</i> - <i>Familiarity with AI-assisted academic writing</i>

Main Themes	Categories	Sub-Categories
1. AI Awareness and Functional Understanding	Awareness of AI Limitations	- <i>Recognition that AI may produce inaccurate outputs</i> - <i>Understanding AI bias and misinformation risks</i> - <i>Awareness of ethical implications of AI use</i>
2. AI Utilization in Teaching, Research, and Administrative Tasks	Instructional Applications of AI	- <i>Use of AI for lesson planning and instructional design</i> - <i>Use of AI to generate examples and instructional materials</i> - <i>Integration of AI in classroom activities</i>
2. AI Utilization in Teaching, Research, and Administrative Tasks	Research and Knowledge Management	- <i>Use of AI for literature summarization</i> - <i>Use of AI in academic writing and editing</i> - <i>Use of AI to organize research ideas</i>
2. AI Utilization in Teaching, Research, and Administrative Tasks	Administrative and Professional Productivity	- <i>Use of AI in report writing and documentation</i> - <i>Use of AI to summarize institutional documents</i> - <i>AI support in communication and professional tasks</i>
3. Perceived Benefits of AI in Academic Practice	Productivity Enhancement	- <i>AI reduces time in lesson preparation</i> - <i>AI improves efficiency in academic tasks</i> - <i>AI supports faster information processing</i>
3. Perceived Benefits of AI in Academic Practice	Instructional Improvement	- <i>AI enhances clarity of instructional materials</i> - <i>AI supports development of innovative teaching strategies</i> - <i>AI helps explain complex concepts to students</i>
3. Perceived Benefits of AI in Academic Practice	Creativity and Idea Generation	- <i>AI assists in brainstorming academic ideas</i> - <i>AI supports content development</i> - <i>AI encourages innovative instructional approaches</i>
4. Challenges and Concerns in AI Integration	Accuracy and Reliability Issues	- <i>Need to verify AI-generated outputs</i> - <i>Concerns about incorrect or misleading information</i> - <i>Need for critical evaluation of AI results</i>
4. Challenges and Concerns in AI Integration	Digital Competence and Skills Gap	- <i>Need for training on AI tools</i> - <i>Need for improved prompt design skills</i> - <i>Limited familiarity with advanced AI applications</i>
4. Challenges and Concerns in AI Integration	Contextual and Technical Constraints	- <i>Difficulty contextualizing AI outputs to local settings</i> - <i>Internet connectivity limitations</i> - <i>Limited access to advanced AI tools</i>
5. Ethical Awareness and Responsible AI Use	Academic Integrity and Authorship	- <i>Importance of originality in academic outputs</i> - <i>Need to cite AI-assisted outputs appropriately</i> - <i>AI should assist but not replace intellectual work</i>

Main Themes	Categories	Sub-Categories
5. Ethical Awareness and Responsible AI Use	Responsible AI Practices	- <i>Need to verify accuracy of AI-generated content</i> - <i>Avoid overdependence on AI tools</i> - <i>Responsible use of AI in teaching and research</i>
5. Ethical Awareness and Responsible AI Use	Bias, Privacy, and Data Ethics	- <i>Concerns about AI bias and misinformation</i> - <i>Awareness of data privacy considerations</i> - <i>Ethical use of AI-generated content</i>
6. Institutional Support and AI Governance Needs	Policy Development and Regulation	- <i>Need for university AI guidelines</i> - <i>Need for clear institutional policy on AI use</i> - <i>Need for ethical standards for AI integration</i>
6. Institutional Support and AI Governance Needs	Capacity Building and Professional Development	- <i>Need for AI training programs for faculty</i> - <i>Need for AI literacy workshops</i> - <i>Need for continuous professional development on AI</i>
6. Institutional Support and AI Governance Needs	Organizational Readiness	- <i>Need for institutional leadership in AI adoption</i> - <i>Need for structured AI governance framework</i> - <i>Need for institutional monitoring of AI use</i>
7. Future Directions of AI in Higher Education	AI for Innovative Teaching	- <i>AI supports personalized learning strategies</i> - <i>AI enhances flexible learning environments</i> - <i>AI promotes technology-enhanced pedagogy</i>
7. Future Directions of AI in Higher Education	Digital Competence Development	- <i>Need to develop future-ready teaching skills</i> - <i>AI requires continuous digital upskilling</i> - <i>AI promotes innovation in academic work</i>
7. Future Directions of AI in Higher Education	AI as Driver of Educational Transformation	- <i>AI influences future curriculum design</i> - <i>AI improves research productivity</i> - <i>AI supports transformation of higher education systems</i>

Faculty members demonstrate a functional and reflective understanding of Artificial Intelligence (AI) as a tool that enhances teaching efficiency, research productivity, and professional practice. Faculty narratives indicate that AI is commonly perceived as a support mechanism rather than a replacement for human expertise, particularly in tasks such as lesson planning, content generation, and academic writing. Participants emphasized that AI tools help organize ideas, summarize scholarly literature, and simplify complex concepts for students, thereby supporting instructional clarity and innovation. These findings are consistent with studies indicating that generative AI enhances academic productivity, facilitates knowledge organization, and supports personalized learning experiences in higher education (Holmes et al., 2019; Zawacki-Richter et al., 2019). Evidence from Philippine higher education institutions also confirms that AI-powered writing tools assist faculty in literature synthesis, drafting academic texts, and improving writing quality, thereby streamlining scholarly workflows and allowing educators to focus on higher-order thinking tasks

(Santiago et al., 2023). Similarly, balanced integration models emphasize that AI technologies can improve feedback mechanisms, enhance adaptive teaching strategies, and support innovative pedagogical approaches when implemented with proper institutional guidance (Cacho, 2024). These insights suggest that KSU faculty view AI as a complementary cognitive tool that enhances professional productivity while maintaining the central role of teacher expertise in knowledge construction.

The results also highlight the need for a comprehensive institutional AI governance framework. According to UNESCO's Recommendation on the Ethics of Artificial Intelligence (2021), educational institutions should adopt policies that promote transparency, fairness, human oversight, accountability, and protection of human rights in AI-enabled environments. Similarly, Jobin, Ienca, and Vayena (2019) identified transparency, accountability, privacy, justice, and human agency as recurring principles across global AI ethics frameworks. The present findings support applying these principles in higher education by developing institutional guidelines governing AI-assisted teaching, research, assessment, and administrative functions.

Despite the perceived benefits, faculty members also articulated several challenges associated with AI integration, particularly concerning accuracy, contextual relevance, and digital competence. Participants noted the need to verify AI-generated outputs due to potential misinformation, bias, and lack of contextual sensitivity to local academic realities. Faculty also emphasized the need for improved prompt-writing skills and more advanced training to maximize the effectiveness of AI in research and instructional design. These concerns align with existing literature highlighting that AI adoption in higher education requires critical evaluation skills and continuous professional development to ensure appropriate application of emerging technologies (Gkrimpizi et al., 2023; Yu, 2024). Studies conducted in Philippine higher education contexts similarly highlight disparities in infrastructure, digital literacy, and institutional readiness that influence the uneven adoption of AI tools across universities (Espartinez, 2025; Estrellado, 2023). Furthermore, empirical findings from engineering education contexts emphasize that faculty adoption of AI is influenced by perceived usefulness, ease of use, and institutional support mechanisms, reinforcing the importance of structured governance and capacity-building programs (Perante et al., 2025; Venkatesh et al., 2003). These findings suggest that while faculty recognize AI's transformative potential, effective integration depends on strengthening digital competencies, ensuring access to reliable technological infrastructure, and providing sustained institutional support.

Ethical awareness emerged as a significant dimension of faculty experiences, with participants expressing concerns about academic integrity, authorship transparency, and responsible use of AI in scholarly work. Faculty emphasized that AI should support rather than replace intellectual engagement,

highlighting the importance of verifying outputs, appropriately citing AI-assisted content, and maintaining originality in academic production. These perspectives reflect broader global discussions emphasizing the need for ethical frameworks that address issues of bias, transparency, data privacy, and accountability in AI-enabled educational environments (Daniel et al., 2026). Universities are increasingly encouraged to adopt responsible AI governance structures that promote fairness, inclusivity, and sustainability in technology adoption, particularly as AI becomes embedded in institutional decision-making processes (Daniel et al., 2026; UNESCO, 2023). Faculty participants also emphasized the need for institutional policies, training programs, and leadership support to guide ethical AI use and ensure consistent implementation across academic units. Prior research confirms that institutional guidelines and professional development initiatives play a critical role in improving faculty confidence and promoting responsible AI integration in teaching and learning environments (Matthews & Potter, 2026; Bandura, 1997). The findings indicate that KSU faculty demonstrate a balanced perspective toward AI adoption, recognizing both its transformative potential and the importance of ethical governance frameworks that support innovation while safeguarding academic integrity and quality education.

Integration of quantitative findings and qualitative insights to generate meta-inferences for the development of evidence-based institutional guidelines for responsible artificial intelligence governance

Table 10: *Joint Display of Quantitative and Qualitative Findings Showing Meta-Inferences on Artificial Intelligence Utilization and Governance among Faculty Members of Kalinga State University*

Quantitative Results	Qualitative Themes	Meta-Inference
High AI Awareness and Literacy (GM = 4.33)	AI Awareness and Literacy	Convergence. Faculty possess strong understanding of AI capabilities and limitations. Qualitative narratives confirm that AI is viewed as a support tool rather than a replacement for professional judgment
Frequent AI Use for Research, Writing, and Lesson Planning (GM = 3.54)	AI Utilization in Academic Practice	Expansion. Qualitative data explain that faculty use AI primarily for idea generation, summarization, and instructional preparation because these tasks provide immediate productivity benefits.
High Perceived Usefulness and Ease of Use (GM = 4.08)	Perceived Benefits of AI Integration	Convergence. Faculty perceive AI as time-saving and productivity-enhancing, supporting Technology Acceptance Model assumptions.
High Ethical Awareness (GM = 4.24)	Ethical Awareness and Responsible AI Use	Expansion. Although faculty demonstrate strong ethical awareness, interviews reveal continuing concerns about academic integrity, authorship, and overdependence, indicating that awareness does not eliminate ethical uncertainty.

Quantitative Results	Qualitative Themes	Meta-Inference
Strong Concern about AI Risks (GM = 4.22)	Challenges and Concerns in AI Integration	Divergence/Explanation. Despite high AI literacy and frequent use, faculty continue to express anxiety about misinformation, bias, and contextual inaccuracies. This suggests that greater AI knowledge may increase awareness of risks rather than reduce concern.
Concern that AI May Misrepresent Indigenous Knowledge (Mean = 4.10)	Bias, Privacy, and Data Ethics	Divergence. Even advanced digital users expressed concern that AI-generated content often lacks cultural specificity and may inaccurately represent indigenous perspectives. This finding indicates that technological competence does not necessarily translate into trust in AI-generated representations of local and indigenous knowledge systems.
Strong Support for AI Guidelines and Training (Mean = 4.37)	Institutional Support and AI Governance Needs	Convergence and Expansion. Faculty consistently advocate for institutional policies, professional development, and governance structures to ensure ethical and context-sensitive AI integration.

DISCUSSION AND CONCLUSIONS

This study contributes to the growing international literature on Artificial Intelligence in higher education by demonstrating that faculty readiness for AI integration is a multidimensional phenomenon encompassing technological competence, pedagogical application, ethical responsibility, and institutional governance. While faculty members exhibited high levels of AI awareness and utilization, they also expressed concerns regarding academic integrity, misinformation, bias, and the representation of indigenous knowledge. These findings indicate that responsible AI adoption requires more than technology acceptance; it requires governance structures that support ethical decision-making, cultural sensitivity, and human oversight. The study, therefore, advances understanding of how higher education institutions can develop context-responsive and globally relevant AI governance frameworks that promote innovation while safeguarding academic and societal values. The study demonstrates that faculty readiness for AI integration extends beyond technology acceptance and encompasses ethical, pedagogical, and governance dimensions. The findings suggest that sustainable AI adoption in higher education requires not only digital competence but also institutional governance structures that address issues of academic integrity, cultural representation, and responsible innovation. These findings support the assumptions of the Technology Acceptance Model, which explains that perceived usefulness and ease of use influence technology adoption behavior, as well as Digital Competence and AI Literacy frameworks, which emphasize the importance of critical understanding in responsible technology integration.

The findings further suggest that higher education institutions should adopt a human-centered approach to AI governance. Rather than viewing AI as a replacement for professional expertise, governance frameworks should reinforce

the principle that human judgment remains central to teaching, research, and academic decision-making. Faculty concerns about overreliance and diminished critical thinking underscore the importance of maintaining human oversight in AI-supported academic processes. Such an approach aligns with emerging international recommendations that emphasize human agency and human-in-the-loop decision-making as essential safeguards for responsible AI adoption in education (UNESCO, 2021; OECD, 2023). Therefore, the study provides empirical support for developing context-responsive AI governance policies that integrate ethical standards, cultural sensitivity, faculty capacity building, and institutional accountability. Such policies are necessary to ensure that AI contributes to educational innovation while preserving academic integrity, protecting culturally grounded knowledge, and advancing sustainable digital transformation in higher education

IMPLICATIONS

The findings indicate that faculty members are generally prepared to integrate AI into teaching, research, and professional tasks due to their high levels of AI awareness, utilization, and perceived usefulness. However, readiness for AI adoption extends beyond technological competence and includes ethical responsibility and institutional support. The study highlights the need for comprehensive institutional AI governance frameworks that provide clear guidelines on academic integrity, ethical AI use, data privacy, and accountability. Faculty concerns regarding misinformation, bias, overreliance on AI, and the potential decline of critical thinking underscore the importance of responsible AI policies and human oversight in academic work.

The strong demand for AI training further suggests that universities should invest in continuous professional development programs to strengthen AI literacy, critical evaluation skills, and responsible AI practices. Additionally, concerns about the misrepresentation of indigenous knowledge emphasize the need for culturally responsive AI governance that safeguards local and indigenous perspectives. Overall, the study implies that sustainable AI integration in higher education requires a balanced approach that combines technological readiness, ethical safeguards, faculty capacity building, and context-sensitive governance to support innovation while preserving academic integrity and educational quality.

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