

# Responsible Governance of Generative AI in Higher Education: Integrating Ethics, Policy, and the REM Framework

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## Abstract

Amid the global surge of generative AI, Nepal's higher education institutions are adopting AI at a pace that outpaces existing governance mechanisms, exposing ethical, pedagogical, and strategic vulnerabilities. Despite rapid adoption, there is no integrative framework ensuring AI adoption is aligned with ethical safeguards, institutional strategy, and learning outcomes. Existing approaches at both global and local levels often offer patchwork ethical solutions, lacking a holistic design that connects policy, pedagogy, ethics, and governance. This paper introduces the Responsible Expansion Model (REM), a conceptual architecture guiding institutions in the responsible, strategic, and ethically grounded adoption of AI. Drawing on global literature and insights from Nepal—including the government's AI conceptual paper and rising digital literacy—REM treats the country as a living laboratory for higher education innovation. It situates local realities within global best practices, emphasizing stakeholder engagement, continuous monitoring, and iterative adaptation. By combining these pillars into a dynamic, co-creative framework, REM provides a locally contextualized yet globally relevant roadmap, resonating with interdisciplinary and management perspectives such as dynamic equilibrium and adaptive management, and establishing empirically testable propositions for responsible AI adoption in higher education.

**Keywords:** generative artificial intelligence, higher education, artificial intelligence governance, academic integrity, ethical adoption, responsible expansion model, Nepal

## Introduction

The rapid proliferation of generative artificial intelligence (AI) in higher education is reshaping teaching, learning, and administrative practices worldwide (Crompton & Burke, 2023; Bearman et al., 2022). While AI offers opportunities for personalized learning, assessment efficiency, and enhanced pedagogical innovation, it simultaneously

raises critical challenges related to academic integrity, ethical adoption, and institutional governance (Adamakis & Rachiotis, 2025; Bittle & El-Gayar, 2025; UNESCO, 2023). Higher education institutions are thus confronted with the dual task of leveraging AI to enhance educational outcomes while ensuring its deployment aligns with ethical standards, policy frameworks, and contextual realities.

Similarly, generative AI is rapidly transforming higher education, not only in administrative efficiency and pedagogical practice but also in how knowledge is generated and validated, introducing both governance and epistemological challenges. Institutions face the dual task of fostering innovation while safeguarding academic integrity, ethical adoption, and stakeholder trust. Existing policies and frameworks often focus on procedural governance but rarely address the co-creative nature of human-AI interactions, where AI actively shapes learning, assessment, and institutional knowledge practices. This paper proposes the Responsible Expansion Model (REM) as a governance-oriented framework that integrates ethical, pedagogical, and strategic dimensions while acknowledging AI's role in co-creating knowledge within higher education systems.

Particularly, in Nepal, the adoption of AI in higher education is emerging but uneven. Students and faculty navigate both the potential of AI-assisted tools and uncertainties surrounding their ethical and responsible use (Dahal & Paudel, 2025; Khatri & Karki, 2023; Poudel & Maharjan, 2026). Research highlights growing concerns about academic misconduct, gaps in institutional policies, and limited frameworks to guide the responsible use of AI in learning and assessment (Sharma & Shrestha, 2026; Tripathi, 2024; GC, 2024). These dynamics reveal the urgent need for governance-oriented frameworks that enable institutions to integrate AI while safeguarding academic integrity and ethical practice.

Therefore, this paper introduces the Responsible Expansion Model (REM), a conceptual framework designed to guide higher education institutions in the strategic, ethical, and accountable implementation of generative AI so as to address this gap. REM emphasizes stakeholder engagement, continuous monitoring, policy integration, and alignment with both global and local ethical standards (European Commission, 2020; Ibrahim Alfiras, Emran, & Mohamed, 2026; UNESCO, 2021). By combining global best practices with the realities of Nepalese higher

education, REM provides a structured approach for managing AI adoption responsibly, fostering innovation, and mitigating risks associated with misuse or ethical lapses.

Through this framework, the study examines how institutions can navigate the complex landscape of AI adoption, addressing ethical, governance, and academic integrity concerns, while offering insights for policy formulation, institutional strategy, and future empirical research.

## Problem Statement

Despite the growing institutional integration of generative AI in higher education worldwide, higher education institutions continue to face significant challenges in ensuring that its adoption is guided by clear ethical principles and robust governance frameworks (Bittle & El-Gayar, 2025; UNESCO, 2023; Adamakis & Rachiotis, 2025). While generative AI holds substantial potential to enhance teaching, learning, and administrative efficiency, it simultaneously introduces risks related to academic misconduct, inequitable access, and misalignment with existing institutional policies (Crompton & Burke, 2023; Bearman et al., 2022). In Nepal, the pace of AI adoption is accelerating, yet many institutions remain under-prepared, with notable gaps in regulatory guidance, faculty training, and student awareness about responsible and ethical AI use (Dahal & Paudel, 2025; Khatri & Karki, 2023; Sharma & Shrestha, 2026; Poudel & Maharjan, 2026).

This situation is further complicated by the absence of structured governance mechanisms and comprehensive ethical guidelines, which leave institutions vulnerable to unintended consequences such as misuse of AI in student assessments, erosion of academic integrity, and potential reputational damage. Moreover, there is limited empirical research on how local socio-cultural, institutional, and policy contexts shape AI adoption, ethical compliance, and policy implementation in South Asian higher education, creating a critical knowledge gap (Celestin et al., 2026; Celestin et al., 2025a; Celestin et al., 2025b;

Mishra & Aithal, 2023). By drawing on insights from work on AI-enabled fraud detection, public financial management in the digital era, forensic accounting under global competition, and the role of human-resource-based ethical capital in organizations (Celestin et al., 2026; Celestin et al., 2025a; Celestin et al., 2025b; Mishra & Aithal, 2023), this study addresses that gap by proposing the Responsible Expansion Model (REM), a conceptual framework that integrates robust governance structures, meaningful stakeholder engagement, and ethical oversight, thereby offering a systematic approach to AI adoption that is responsive to both global standards and local realities in Nepalese higher education.

While generative AI presents transformative opportunities, many higher education institutions still lack holistic frameworks that simultaneously address policy alignment, pedagogical integrity, and the epistemic and ontological implications of AI–human collaboration. Existing governance approaches often treat AI primarily as a technical tool to be controlled, rather than as a co-creative participant in knowledge production, resulting in persistent gaps in accountability, strategic planning, and ethical oversight (UNESCO, 2023; Adamakis & Rachiotis, 2025). By situating AI adoption not merely as a technological intervention but as a governance and ethical imperative, this study underscores the need for strategic, accountable, and culturally contextualized approaches to AI in higher education. Through the REM framework—and informed by broader research on AI-driven governance, accountability, transparency, and ethical capital development (Celestin et al., 2026; Celestin et al., 2025a; Celestin et al., 2025b; Mishra & Aithal, 2023)—the research aims to guide institutional practices so that AI is leveraged as an active partner in knowledge creation, while remaining firmly aligned with institutional values, regulatory expectations, and social responsibility.

### Research Objectives

The primary objective of this study is to examine how higher education institutions can integrate generative AI responsibly, ensuring

alignment with ethical principles, academic integrity, and effective governance structures. Specifically, the study aims to identify the challenges and opportunities that influence AI adoption in the Nepalese higher education context, explore how global best practices can be adapted to local institutional realities, and assess the applicability of the Responsible Expansion Model (REM) as a framework for guiding strategic, accountable, and ethically grounded AI implementation. By achieving these objectives, the study seeks to provide actionable insights for institutional policy development, management strategies, and governance mechanisms that balance innovation with ethical and pedagogical considerations.

### Literature Review

The integration of generative AI in higher education is a rapidly evolving phenomenon, with global research highlighting both transformative potential and significant challenges. Studies indicate that AI can enhance personalized learning, automate administrative processes, and support innovative pedagogical approaches, thereby reshaping traditional academic practices (Crompton & Burke, 2023; Bearman et al., 2022; Luckin et al., 2016). Systematic reviews suggest that institutions are increasingly exploring AI not only as a teaching tool but also as a strategic instrument for academic governance, though implementation remains uneven and context-dependent (Castillo-Martínez et al., 2024; Adamakis & Rachiotis, 2025).

In the Nepalese and South Asian context, AI adoption is still emerging, with evidence pointing to varying degrees of institutional readiness, faculty awareness, and student engagement (Dahal & Paudel, 2025; Khatri & Karki, 2023; Poudel & Maharjan, 2026). Research highlights both opportunities, such as enhanced learner autonomy and efficiency in assessment, and challenges, including inconsistent policy frameworks, ethical uncertainties, and risks to academic integrity (Sharma & Shrestha, 2026; Tripathi, 2024; GC, 2024). These findings underscore the importance of contextualized governance strategies that integrate

ethical oversight, stakeholder engagement, and institutional policies to ensure responsible AI adoption in higher education.

Academic integrity and ethical adoption are central concerns in the deployment of generative AI in higher education. Globally, research highlights that while AI tools can enhance learning and assessment, they also pose risks of misuse, plagiarism, and erosion of academic standards (Bittle & El-Gayar, 2025; Avello & Aranguren Zurita, 2025; Bretag, 2013). Students' perceptions of AI-assisted writing often reflect ethical ambiguities, with some viewing such tools as facilitators of learning and others as potential avenues for misconduct (Lund et al., 2025; GC, 2024). To address these concerns, scholars and policy bodies advocate for governance-oriented strategies that integrate ethical guidelines, monitoring mechanisms, and stakeholder engagement into AI adoption processes (European Commission, 2020; UNESCO, 2021, 2023; Ibrahim Alifras, Emran, & Mohamed, 2026; Mahajan, 2025).

Moreover, in the Nepalese context, similar challenges emerge, with higher education institutions grappling with limited frameworks for ethical AI use, uneven faculty preparedness, and gaps in student digital literacy (Dahal & Paudel, 2025; Khatri & Karki, 2023; Poudel & Maharjan, 2026; Sharma & Shrestha, 2026). These dynamics underscore the necessity of a structured, governance-focused model that aligns ethical oversight with institutional strategy. The Responsible Expansion Model (REM) addresses this need by providing a conceptual framework that integrates ethics, academic integrity safeguards, and strategic governance, enabling institutions to deploy AI responsibly while fostering innovation and pedagogical effectiveness.

In this regard, effective governance and policy integration are critical for ensuring responsible adoption of generative AI in higher education. Globally, institutions are increasingly adopting structured governance mechanisms to oversee AI deployment, emphasizing accountability,

transparency, and alignment with ethical standards (Adamakis & Rachiotis, 2025; Castillo-Martínez et al., 2024; European Commission, 2020). Such mechanisms include formal policies, faculty training, and continuous monitoring systems that collectively mitigate risks associated with misuse, inequitable access, or breaches of academic integrity (Bittle & El-Gayar, 2025; UNESCO, 2021, 2023; Ibrahim Alifras, Emran, & Mohamed, 2026).

Crucially, following on global trends, Nepalese government's recent conceptual paper on AI governance represents a historic threshold moment. Yet, it also highlights the immediate need for robust governance frameworks, which remain under development. It signals to an emergent and immediate policy based action. With the current governance frameworks being still developing, with institutions facing challenges such as limited policy infrastructure, variable faculty readiness, and inconsistencies in monitoring AI use (Dahal & Paudel, 2025; Khatri & Karki, 2023; Poudel & Maharjan, 2026; Sharma & Shrestha, 2026), the REM model bridges this gap.

Most significantly, these gaps highlight the necessity of a governance-oriented, context-sensitive model that integrates institutional policies, ethical oversight, and stakeholder engagement. The Responsible Expansion Model (REM) operationalizes these principles, offering higher education institutions a structured approach to manage AI adoption strategically, ensuring that innovation is balanced with ethical responsibility, academic integrity, and sustainable institutional practices.

## Methodology

This study adopts a conceptual research design to examine the governance, ethical, and strategic dimensions of generative AI adoption in higher education. Given the nascent state of empirical research in Nepal and the broader South Asian context, a framework-based approach was deemed most appropriate to integrate global best practices, local realities, and policy imperatives.

The methodology combines systematic literature review, comparative analysis, and theoretical synthesis to construct the Responsible Expansion Model (REM), which serves as the central conceptual contribution of the study (Castillo-Martínez et al., 2024; Crompton & Burke, 2023; Adamakis & Rachiotis, 2025).

In addition, the literature review incorporates global and Nepalese sources on AI adoption, academic integrity, ethics, and governance, ensuring a comprehensive understanding of both opportunities and challenges. Likewise, key inclusion criteria for literature selection included peer-reviewed articles, policy reports, and institutional case studies published between 2013 and 2026, providing contemporary insights into AI in higher education. The conceptual synthesis focused on identifying recurrent themes in governance practices, ethical considerations, and institutional strategies, which were then integrated into the REM framework to propose a structured approach for responsible AI adoption.

While the study is primarily conceptual, REM is designed to be empirically testable, with propositions that can guide future research on institutional adoption, policy implementation, and stakeholder engagement. By situating the model within global guidelines (UNESCO, 2021, 2023) and local contexts (Dahal & Paudel, 2025; Khatri & Karki, 2023), the methodology ensures that REM is both theoretically grounded and practically relevant, offering higher education institutions a roadmap for ethically and strategically managing AI.

### **Responsible Expansion Model (REM)**

The Responsible Expansion Model (REM) is a conceptual framework that helps educators, administrators, and policymakers adopt generative AI in ways that are responsible, ethical, and strategically aligned with institutional goals. The model's working mechanism resonates with contemporary theoretical perspectives — including but not limited to Post-Humanism (Braidotti, 2013), New Materialism (Coole, 2010), Actor-

Network Theory (Latour, 2005), Systems Theory (Maturana, 2012), and Process Philosophy (Whitehead, 2010) — highlighting the co-creative and dynamic relationship between institutions, humans, and AI technologies. REM integrates four interdependent pillars — Policy Alignment, Pedagogical Integration, Ethical Oversight and Academic Integrity, and Governance & Strategic Management—providing a holistic roadmap to balance technological innovation with ethical responsibility, academic integrity, and institutional sustainability (European Commission, 2020; UNESCO, 2021, 2023; Adamakis & Rachiotis, 2025).

Each of these pillars represents a critical dimension of responsible AI adoption, and together they form an interconnected framework guiding institutions toward ethical, strategic, and pedagogically sound practices

#### ***Policy Alignment***

Policy Alignment forms the foundation of REM, ensuring that AI adoption is governed by clear institutional rules and monitoring mechanisms. Well-developed policies define acceptable AI usage in teaching, learning, and research, and establish accountability frameworks for faculty, administrators, and students. They also provide guidance for compliance with international standards and local regulatory requirements (Crompton & Burke, 2023; Ibrahim Alifras, Emran, & Mohamed, 2026). In the Nepalese higher education context, where formal AI governance is still developing, clear policy frameworks reduce inconsistencies and guide responsible adoption across departments (Dahal & Paudel, 2025; Khatri & Karki, 2023). Policy alignment ensures that institutions have a structured approach to AI integration, creating a foundation upon which pedagogical practices, ethical safeguards, and governance structures can operate effectively. REM emphasizes adaptive policies that are not only compliant with global and local standards but also attentive to the ways AI co-creates institutional knowledge, ensuring that governance structures

can respond dynamically to evolving AI-driven insights.

### ***Pedagogical Integration***

Pedagogical Integration focuses on embedding AI tools within teaching, learning, and assessment processes in ways that enhance learning outcomes. It emphasizes the alignment of AI deployment with curriculum objectives, learning outcomes, and instructional strategies (Luckin et al., 2016; Castillo-Martínez et al., 2024). Through pedagogical integration, AI can provide personalized learning experiences, adaptive assessments, and timely feedback, while maintaining the centrality of human judgment in educational decisions. In Nepal, effective integration requires consideration of faculty digital literacy, technological infrastructure, and equitable access for students, ensuring that AI enhances learning rather than creating disparities (Sharma & Shrestha, 2026; Tripathi, 2024). Ethical frameworks within REM account for AI-human co-creativity, balancing innovation with safeguards that protect academic integrity, equity, and learner agency, while supporting emergent knowledge practices shaped by AI.

### ***Ethical Oversight and Academic Integrity***

Ethical Oversight and Academic Integrity ensure that AI is used responsibly and that academic standards are maintained. Institutions are encouraged to implement training, monitoring, and evaluation processes to prevent plagiarism, bias, and misuse of AI tools (Bittle & El-Gayar, 2025; Lund et al., 2025; UNESCO, 2023). This pillar is closely linked to policy and pedagogy: policies set the rules, pedagogical practices operationalize them, and ethical oversight ensures compliance. In the Nepalese context, where oversight mechanisms are limited, embedding ethical safeguards is critical to maintaining trust, credibility, and fairness in AI-assisted learning (Dahal & Paudel, 2025; Poudel & Maharjan, 2026). REM advocates for active engagement of faculty, students, and administrators, recognizing that effective governance depends on collaborative human-AI interactions that influence decision-making and learning outcomes.

### ***Governance and Strategic Management***

Governance and Strategic Management provide the coordination necessary for sustainable AI adoption. This pillar encompasses leadership structures, stakeholder engagement, and continuous monitoring mechanisms that align AI initiatives with institutional priorities and long-term objectives (Adamakis & Rachiotis, 2025; Castillo-Martínez et al., 2024). Governance ensures that policy, pedagogy, and ethics operate cohesively and that AI adoption is adaptable to evolving technological and institutional needs. In Nepalese institutions, robust governance mechanisms help bridge gaps in policy, faculty readiness, and infrastructure, providing a structured approach to navigate the complex challenges of AI adoption (Khatri & Karki, 2023; Sharma & Shrestha, 2026). In the similar manner, monitoring processes are designed to capture not only misuse but also how AI participates in shaping institutional knowledge, enabling adaptive strategies that reinforce accountability, transparency, and epistemically responsible innovation.

The REM framework is dynamic and iterative, with each pillar reinforcing the others. Policy alignment underpins ethical oversight, ethical safeguards inform pedagogical strategies, and governance ensures strategic integration and continuous improvement. By combining these dimensions, REM offers a globally informed but locally adaptable framework, enabling higher education institutions to adopt AI responsibly, foster innovation, maintain academic integrity, and align technological initiatives with strategic and ethical objectives. The framework also provides a foundation for empirical testing, allowing future research to evaluate how governance, policy, pedagogy, and ethics interact to shape responsible AI adoption across diverse contexts. While REM is fully operationalized for practical governance and pedagogical decision-making, its conceptual underpinnings draw on established theoretical perspectives that inform organizational adaptability, self-regulation, and ethical stewardship. Its conceptual lineage resonates

with established management paradigms such as Dynamic Capabilities (Teece et al., 1997), Viable Systems (Beer, 1972), Learning Organizations (Senge, 2006), and Systems Theory (Checkland, 1981). Together, these perspectives illustrate how institutions can autonomously adapt, self-regulate, and balance stability with expansion, offering a management-friendly analogue to the deeper principles underpinning the REM framework. By integrating these ideas, REM provides a structured yet flexible roadmap for ethical, strategic, and pedagogically aligned AI adoption, highlighting both local adaptability and global governance relevance

### **Propositions for Future Empirical Testing**

Based on the Responsible Expansion Model (REM), the following propositions provide a foundation for future empirical research to evaluate institutional AI adoption, governance effectiveness, and ethical integration in higher education:

#### ***Proposition 1: Policy Alignment***

Institutions with well-defined AI policies and clear monitoring mechanisms will demonstrate higher compliance with ethical guidelines, consistent adoption practices, and reduced incidences of academic misconduct. Robust policy alignment is expected to mediate the relationship between AI adoption and institutional accountability, providing a structured framework that guides faculty and student behavior in both global and Nepalese contexts (Crompton & Burke, 2023; Ibrahim Alfiras & Mohamed, 2026; Dahal & Paudel, 2025). Institutions that integrate REM's co-creative perspective on AI-human collaboration will demonstrate higher alignment between innovation and governance outcomes.

#### ***Proposition 2: Pedagogical Integration***

The extent to which AI tools are embedded strategically into teaching, learning, and assessment processes will positively influence learning outcomes and student engagement. Effective pedagogical integration is predicted to moderate the impact of AI on academic performance and innovation, ensuring that technology complements

rather than replaces critical instructional processes (Castillo-Martínez et al., 2024; Sharma & Shrestha, 2026). Ethical adoption frameworks that recognize AI as a knowledge partner will improve academic integrity and learning effectiveness.

#### ***Proposition 3: Ethical Oversight and Academic Integrity***

Institutions that implement comprehensive ethical safeguards, training programs, and monitoring mechanisms will exhibit higher levels of academic integrity and responsible AI use. Ethical oversight is expected to mediate the relationship between AI adoption and perceived trustworthiness, mitigating risks of misuse, plagiarism, or inequitable access while reinforcing the credibility of educational outcomes (Bittle & El-Gayar, 2025; Lund et al., 2025; UNESCO, 2023; Poudel & Maharjan, 2026).

#### ***Proposition 4: Governance and Strategic Management***

Strong governance structures and strategic management processes will enhance institutional coordination, stakeholder engagement, and the sustainability of AI adoption initiatives. Governance effectiveness is predicted to moderate the relationships among policy alignment, pedagogical integration, and ethical oversight, ensuring that AI adoption is coherent, adaptable, and aligned with long-term institutional goals (Adamakis & Rachiotis, 2025; Castillo-Martínez et al., 2024; Khatri & Karki, 2023).

#### ***Proposition 5: Integrated REM Impact***

The dynamic interaction among policy alignment, pedagogical integration, ethical oversight, and governance will collectively determine the overall effectiveness of AI adoption in higher education. Institutions that adopt REM holistically are expected to achieve better alignment between innovation, ethical responsibility, and academic outcomes compared to institutions implementing isolated measures. This integrated proposition provides a framework for evaluating the cumulative effect of all REM pillars in diverse institutional and cultural contexts

(European Commission, 2020; UNESCO, 2021, 2023; Adamakis & Rachiotis, 2025).

### ***Implications, Limitations, and Future Directions***

Building on the propositional ground discussed earlier, this section reflects on the practical and scholarly significance of the Responsible Expansion Model (REM) and the propositions derived from it. It highlights how higher education institutions can adopt generative AI responsibly, considers the limitations of the conceptual framework, and outlines directions for future research.

### **Implications**

The REM framework offers actionable insights for institutional policy, pedagogy, ethics, and governance. From a policy perspective, clear and well-defined AI guidelines help standardize adoption practices, reduce inconsistencies, and provide a foundation for ethical oversight and academic integrity (Crompton & Burke, 2023; Ibrahim Alifiras, Emran, & Mohamed, 2026; Dahal & Paudel, 2025). Pedagogically, integrating AI thoughtfully enhances learning outcomes, facilitates personalized instruction, and supports student engagement. Faculty development and digital literacy initiatives are critical to ensure AI complements human judgment and improves educational quality (Castillo-Martínez et al., 2024; Sharma & Shrestha, 2026). Ethical safeguards, including monitoring, training, and equitable access, protect academic integrity and maintain trust, particularly in contexts like Nepal where oversight mechanisms are emerging (Bittle & El-Gayar, 2025; Lund et al., 2025; UNESCO, 2023; Poudel & Maharjan, 2026). Strong governance structures ensure strategic alignment, stakeholder engagement, and sustainable implementation, creating a cohesive approach to AI adoption across the institution (Adamakis & Rachiotis, 2025; Castillo-Martínez et al., 2024; Khatri & Karki, 2023). Similarly, by recognizing AI as a co-creative partner in higher education, REM moves beyond traditional governance models, linking ethics, strategy, and pedagogy with the epistemological role of AI. Institutions adopting REM can foster more responsive, accountable, and ethically robust

AI integration, while also supporting innovative knowledge creation and collaborative learning practices.

### **Future Directions**

Future research should empirically validate the Responsible Expansion Model (REM) and its associated propositions, examining how the four pillars — Policy Alignment, Pedagogical Integration, Ethical Oversight & Academic Integrity, and Governance & Strategic Management — interact to shape responsible AI adoption, ethical compliance, and student learning outcomes. Comparative studies across countries, institutional types, and cultural contexts could refine the model's applicability and generalizability. Longitudinal research may further assess the sustainability, adaptability, and iterative improvement of AI governance, pedagogy, and ethical oversight over time. Additionally, investigations into emerging AI technologies — including adaptive learning systems, generative tools, and AI-driven assessments — could enhance REM's operational relevance and support evidence-based guidance for higher education institutions navigating the evolving AI landscape.

### **Conclusion**

This study presents the Responsible Expansion Model (REM) as a comprehensive framework for guiding higher education institutions in the responsible, ethical, and strategic adoption of generative AI. By integrating four interdependent pillars — policy alignment, pedagogical integration, ethical oversight and academic integrity, and governance and strategic management — REM provides a holistic roadmap that balances technological innovation with institutional accountability and educational effectiveness. The model addresses both global best practices and the unique challenges faced by Nepalese higher education institutions, offering a locally adaptable yet conceptually robust approach.

Through the development of empirically testable propositions, this study establishes a foundation for future research on how policies,

pedagogy, ethics, and governance interact to shape responsible AI adoption. The propositions encourage systematic evaluation of the effectiveness of AI integration, the enforcement of ethical safeguards, and the alignment of AI initiatives with institutional strategic goals. These contributions are particularly relevant in contexts where AI adoption is emerging, oversight mechanisms are limited, and digital literacy varies among faculty and students.

Ultimately, REM advances scholarly understanding of AI governance in higher education while providing actionable insights for policymakers, administrators, and educators. By combining conceptual rigor with practical relevance, the model supports institutions in harnessing AI to enhance learning, maintain academic integrity, and foster sustainable innovation. As AI technologies continue to evolve, REM offers a dynamic and iterative framework that can guide institutions in adapting to new challenges, promoting ethical adoption, and achieving long-term educational and strategic objectives. Furthermore, acknowledging AI as a co-creative agent helps institutions design governance structures that not only mitigate risks but also actively guide knowledge creation and pedagogical innovation. In addition, REM provides a governance-oriented, ethically grounded, and epistemologically informed framework for higher education institutions, balancing technological innovation with accountability, pedagogical integrity, and AI-human co-creativity. By integrating policy, strategy, ethics, and stakeholder engagement, REM ensures that AI adoption contributes not only to efficiency and compliance but also to the evolution of institutional knowledge, governance, and learning practices.

### Limitations

While REM provides a comprehensive conceptual framework, it has limitations that must be acknowledged. As a primarily theoretical model, it requires empirical testing across different institutional, cultural, and regulatory contexts. The focus on Nepalese higher education provides valuable insights but may limit generalizability to

other regions. Furthermore, the rapid evolution of AI technologies means that policies, pedagogical strategies, and governance structures will need continual adaptation. These limitations suggest that REM should be seen as a dynamic, evolving framework rather than a fixed prescription.

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