Enhancing higher education management capacity in Vietnam under the dual impact of artificial intelligence

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***Abstract**: Artificial Intelligence (AI) is fundamentally transforming the learning environment and creating new challenges for higher education training management in Vietnam. National digital transformation raises the question of how management should be organized to ensure training quality and maintain academic standards at the higher education level. This article analyzes the dual impact of AI on educational activities, thereby identifying the requirements for management mechanisms, particularly in the aspects of tool utilization, evaluation organization, and data control. By combining theoretical analysis with evidence from higher education institutions in Vietnam, the article proposes an action framework to standardize AI use, restructure evaluation systems to promote transparency in the learning process, and integrate data governance into quality assurance systems.*

Keywords: *Training management; artificial intelligence; digital safety; adaptive governance; Vietnam.*

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1. Introduction

The development of artificial intelligence (AI) is transforming approaches to knowledge acquisition, learning organization, and assessment in higher education. Text generation tools, programming support, document synthesis, and multimedia content creation are increasingly used by students and faculty in teaching and learning. This wider use of AI calls for adjustments in higher education training management mechanisms to ensure academic quality in AI-supported learning environments. At the national policy level, digital transformation and the development of high-quality human resources have been identified as core tasks. Resolution No. 52-NQ/TW dated September 27, 2019, of the Politburo on guidelines and policies for proactive participation in the Fourth

Industrial Revolution emphasizes the need for fundamental innovation in education and training to adapt to new technologies (Politburo, 2019). Decision No. 749/QD-TTg dated June 3, 2020, of the Prime Minister approving the National digital transformation program to 2025, with an orientation to 2030, identifies education as one of the priority areas for comprehensive digital transformation (Prime Minister, 2020). Recently, the Prime Minister's Decision No. 127/QD-TTg dated January 26, 2021, issued the National strategy for research, development, and application of AI to 2030, further affirming the role of AI in innovation and human resource development (Prime Minister, 2021). Notably, Resolution No. 71-NQ/TW dated August 22, 2025, of the Politburo on Breakthroughs in education and training development continues to emphasize the need for strong innovation in university governance, digital transformation in training, and the enhancement of human resource quality in the context of the Fourth Industrial Revolution, providing a crucial strategic political orientation for the application of AI in university management and training organization (Politburo, 2025). These orientations demonstrate that researching training management mechanisms in the context of AI integration is significant both academically and from a policy perspective.

AI brings both benefits and risks to training activities. On the positive side, AI supports personalized learning, provides instant feedback, and acts as a cognitive scaffold, helping learners expand ideas and improve their expressive abilities. On the other hand, AI can generate misinformation, fabricate citations, or produce academic outputs that make it difficult to determine learners' actual contributions. Unregulated use of AI increases data security risks, especially when learners input personal information or learning data into public platforms. In this article, the dual impact is understood as the simultaneous presence of two dimensions: on the one hand, AI supports cognition and enhances learning efficiency; on the other hand, AI raises governance risks related to academic integrity and digital safety. Although numerous studies have discussed the use of AI in education, most focus on learners' usage behaviors or ethical recommendations at the individual level. Analyses at the level of training governance, specifically, the design of mechanisms to control learning processes and assessments in AI-integrated environments, remain limited. In the context of national resolutions and strategies that emphasize the need for educational innovation driven by digital technology, this gap underscores the urgent need to develop a governance framework that balances technological innovation with the assurance of academic standards.

On this basis, the article aims to achieve two main objectives: (1) To clarify the vulnerabilities in training management when AI is integrated into teaching and learning activities; (2) To propose an adaptive governance framework that shifts the focus from controlling output products to managing the process of argument formation and AI-supported learning interactions. The article's contributions are reflected in three aspects. *First,* it shifts the focus of discussions on AI in higher education from the use of tools and individual ethics to training management. *Second,* by integrating three approaches: cognitive load, quality assurance linked to accountability, and risk governance, the article develops an integrated analytical framework to identify the dual impact of AI on higher education. *Third,* the article proposes an adaptive governance model that includes standardizing AI use, restructuring assessments to promote process transparency, and integrating data governance into quality assurance systems. The novelty of the article

lies in connecting these discussions into an action framework that can be applied in Vietnamese higher education.

2. Research methodology

The study adopts a theoretical research approach combined with policy analysis and practical synthesis. This approach aligns well with the research objectives, as the issue of university training management in the context of AI integration is not only a technological issue but also a matter of governance and institutional frameworks. Based on this foundation, the research does not conduct independent quantitative surveys but instead analyzes secondary sources to identify trends, management requirements, and current policy gaps.

The sources used in this study are grouped into three main categories. *First,* documents from the Party and the State related to digital transformation, AI development, and higher education reform, which clarify the policy context and legal basis of the research issue. *Second,* scientific works, both domestic and international, on AI in education, quality assurance, accountability, and risk governance, provide the theoretical basis for the analysis. *Third,* practical data and information published by several higher education institutions in Vietnam reflect the initial stages of AI integration in learning and academic management.

Methodologically, the article combines document and policy analyses. The former systemizes relevant concepts, approaches, and research findings, thereby identifying gaps in research on training management in the presence of AI. Policy analysis clarifies the relationships among macro-level orientations toward digital transformation, AI development, and the requirements for innovation in higher education management, thereby affirming the need to adjust training management mechanisms. In addition, the study uses a theoretical synthesis to connect three approaches: cognitive load theory, quality assurance linked with accountability, and risk governance. These three approaches allow for a relatively comprehensive analysis of the dual impact of AI on higher education, from the perspectives of learning, assessment, data control, and digital safety. Based on a comparison of theory, policy, and practice, the article conducts an analysis that follows a logical progression from problem identification to solution proposals, thereby constructing an adaptive governance framework for university training management in the digital era. Although primarily based on secondary sources, this approach ensures the proposals are systematic and feasible within Vietnam's current context.

3. Theoretical foundation for training management in an AI-integrated environment.

The integration of AI into higher education should first be examined from a management perspective. In this article, training management is understood in a narrow sense as the system of regulations, processes, and tools for coordinating teaching activities, assessment, and quality control within higher education institutions. This form of management must ensure both the objectives of enhancing learning efficiency and maintaining quality standards and accountability. To analyze this issue in an AI-integrated environment, the article employs three complementary approaches: (1) Cognitive load theory to explain the limitations and learning support capabilities of AI; (2) A quality assurance approach linked to accountability to analyze the requirements for adjusting assessments; and (3) Risk management to clarify the need for controlling data, tools, and processes in the use of AI in training activities.

According to cognitive load theory, learning efficiency depends on the limited information-processing capacity of working memory. The learning process is influenced by three types of load: intrinsic, extraneous, and germane (Paas, Renkl & Sweller, 2003). From this perspective, AI plays a supportive role by organizing information, suggesting argument structures, or providing initial feedback. Recent studies indicate that AI can serve as cognitive scaffolding in digital learning environments, guiding learners' information processing (Siu et al., 2025). However, this benefit is only achieved when AI is used as a supportive tool. If learners rely on AI to replace the process of idea formation, it may lead to a decline in independent thinking skills.

From a quality management perspective, higher education operates under the principles of quality assurance and accountability. The constructive alignment model emphasizes the alignment between learning outcomes, teaching and learning methods, and assessment methods (Biggs, 1996). In this model, assessment not only aims to confirm final results but also ensures that the competency development process aligns with the intended objectives. The emergence of AI changes the conditions under which this principle is implemented. When learning products are significantly supported by technological tools, assessments based solely on the completed text may not accurately reflect learners' actual competencies. AI-integrated learning environments require assessment mechanisms that can track processes and ensure transparency into individual participation levels. Additionally, the phenomenon of hallucination, where AI generates false or fabricated information, is identified as a significant risk in academic contexts (Sun et al., 2024). From this perspective, the quality assurance approach linked to accountability forms the second analytical axis of the article: the requirement to shift from outcome-oriented assessment to both process control in competency development and substantive participation by learners (Bovens, 2007).

In addition to quality concerns, integrating AI into training activities underscores the need for risk management in the digital environment. *The risk management approach* emphasizes identifying and controlling risks from the system design phase, rather than addressing them after incidents occur (OECD, 2014). AI operates through data processing and may require users to provide input data. Without control mechanisms, inputting learning data or personal information into public platforms could lead to risks of data leakage or misuse beyond educational purposes. Recent studies on AI governance recommend applying the principle of safety by design, in which security and risk-control criteria must be integrated into the policy formulation and technology-use process design stages (Floridi et al., 2018). In this regard, the risk management approach constitutes the third analytical axis, emphasizing that the integration of AI into training activities must be accompanied by mechanisms for controlling data, tools, and usage processes from the earliest stages of internal policy design.

Thus, training management in an AI-integrated environment must meet three fundamental requirements: (1) Ensuring that AI is used as a cognitive support tool, rather than a substitute for the learner's thinking process; (2) Restructuring quality assurance mechanisms towards enhancing process transparency and accountability; (3) Integrating risk management and the principle of safety by design into the training management system. These three requirements not only stem from technological practices but also have a solid

foundation in modern learning theories and governance, providing a basis for identifying practical requirements and proposing adaptive management frameworks.

4. Current status of higher education management in Vietnam in the context of AI integration

Strategic documents, such as Resolution No. 52-NQ/TW dated September 27, 2019, of the Politburo on guidelines and policies for proactively participating in the Fourth Industrial Revolution; Decision No. 749/QD-TTg dated June 3, 2020, of the Prime Minister approving the National digital transformation program to 2025, with an orientation to 2030; Decision No. 127/QD-TTg dated January 26, 2021, of the Prime Minister issuing the National strategy on research, development, and application of AI to 2030; Conclusion No. 91-KL/TW dated August 12, 2024, of the Politburo; Resolution No. 71-NQ/TW dated August 22, 2025, of the Politburo on Breakthroughs in education and training development, all identify education as a priority area for the application of digital technology and AI development. This places higher education institutions in a position where they must both proactively adopt technology and ensure quality standards in training as the learning environment changes significantly.

Several data from Vietnam show that the use of AI is no longer a peripheral phenomenon in higher education but is now visible in students' learning and research activities. A survey of 584 students from six member universities of the Vietnam National University, Ho Chi Minh City, revealed that 98.1% of respondents were aware of ChatGPT. Among the surveyed students, 89.2% used the free version, while 10.8% opted for the paid version (Em et al., 2024). This study not only reflects a high level of awareness but also demonstrates that ChatGPT has been widely used as a learning and research tool in the university environment. However, the survey results also highlight notable limitations, such as: many students using ChatGPT only for basic information retrieval; lacking training in effective use; being unfamiliar with designing appropriate prompts; facing challenges when querying in Vietnamese; and not fully trusting the accuracy and reliability of the information generated by the tool. This indicates that the issue at hand is not only the presence of AI in learning but also the quality of its usage, the ability to verify outputs, and the academic readiness of learners when interacting with this tool.

While the survey at Vietnam National University, Ho Chi Minh City, indicates that AI is evident in students' learning activities, research conducted at Ho Chi Minh City University of Education highlights the governance aspect of the issue. Based on 235 valid questionnaires, this study shows that acceptance of ChatGPT use in learning is not a random phenomenon but is influenced by various factors, including perceived usefulness, perceived ease of use, personal innovativeness in information technology, and technological anxiety (Sang et al., 2026). These findings imply that the use of AI in universities is becoming a learning practice shaped by specific conditions, influenced by both learners' mindsets and the support provided by educational institutions. In other words, as students begin to accept and integrate AI into their learning, universities' responsibility cannot remain limited to observation or general warnings; it must shift toward guiding its use, establishing boundaries, and designing appropriate control mechanisms. This reality indicates that the need to manage AI in higher education in Vietnam is no longer a matter of prediction but has become a direct requirement of the current learning environment.

At the institutional level, practical experience in Vietnam indicates that several higher education institutions have begun transitioning from identifying issues to enacting regulations for managing the use of AI in academia. A notable example is Ho Chi Minh City Open University, where the Office of Cooperation and Scientific Management issued Notification No. 282/TB-HTQLKH on September 4, 2025, regarding rules on the use of AI in student research projects. This document not only defines AI but also establishes specific principles for its use, such as requiring learners to declare their use of AI, prohibiting the recognition of AI as an author, disallowing the citation of AI-generated content as an academic source, and mandating the retention of interaction history for verification and cross-checking purposes when necessary. The issuance of such guidelines by an educational institution demonstrates that AI is being regarded as a matter within the scope of academic management rather than merely a neutral technical tool. What is noteworthy here is not the mere existence of an internal document but the way it incorporates AI into a framework of transparency, accountability, and academic verification (Ho Chi Minh City Open University, 2025). Alongside Ho Chi Minh City Open University, the University of Economics Ho Chi Minh City (UEH) also announced regulations on controlling and addressing plagiarism, as well as the use of AI in academic outputs, in late December 2025. According to UEH's published information, these regulations clearly define AI as a supportive tool that does not replace the author's reasoning, analysis, or creativity. Additionally, they place AI use within a framework of transparency, academic accountability, and plagiarism control. The regulations apply to learners, staff, visiting lecturers, and individuals or organizations involved in training, scientific research, and academic activities at UEH. Compared to approaches that merely stop at ethical warnings or cautious usage recommendations, actions such as those of UEH indicate that several higher education institutions in Vietnam have begun to perceive AI as a subject requiring regulation through internal policies, particularly in areas related to academic integrity, authorial responsibility, and quality control of academic outputs. This demonstrates that institutional responses to AI in Vietnam are no longer entirely absent but have emerged at an initial level (University of Economics Ho Chi Minh City, 2025).

However, the increasing prevalence of AI underscores that the current management framework is under pressure to adapt to the realities of training. In Vietnam, the issuance of internal guidelines on declaring AI use, permissible support scopes, and learners' accountability remains inconsistent across educational institutions and has not been fully reflected in the publicly accessible documents reviewed in this article. In this context, a notable challenge is that the current assessment system in many courses still primarily relies on output-based evaluation. When AI can generate coherent texts with logical structures and even apparently complete citation systems, assessments based solely on final products may no longer accurately reflect learners' actual competencies. Numerous analyses have warned that without establishing mechanisms to monitor the process, the use of AI could undermine academic integrity and blur the boundaries between legitimate support and technology-assisted plagiarism (Vi, 2025). Thus, the practical demand for training management is to shift the focus from product control to process control in product formation. This includes requiring evidence of argument development steps, integrating

source verification criteria, and enhancing direct assessment methods to identify individual competencies. Beyond academic integrity, data governance and information security also constitute systemic management concerns. The use of public AI platforms may pose risks of academic data breaches and exposure of personal information if educational institutions lack clear guidelines on permissible data input, usage scope, and user responsibilities (Dzung, 2025). Meanwhile, Vietnamese laws on cybersecurity and personal data protection explicitly outline organizational responsibilities in data management and security. This underscores that the capacity for training management in the context of AI cannot be separated from data governance capabilities. Allowing the use of AI must be accompanied by mechanisms for tool approval, clear delineation of managerial responsibilities, and procedures for handling data-related incidents.

It can be observed that the current practice of higher education in Vietnam is unfolding in two directions. On one hand, AI has been increasingly utilized by students with a growing level of awareness and application in learning and research. On the other hand, management responses at the institutional level, although beginning to emerge, have only been institutionalized in a limited number of universities and have not demonstrated uniformity across the entire system. Therefore, it would be inadequate to view the use of AI in higher education in Vietnam today only as a technical phenomenon or an issue of individual ethics. In reality, AI has entered the learning environment, and several institutions have initiated management measures; however, internal guidelines, reporting mechanisms, evaluation standards, and data control principles are still in the process of formation and differentiation among universities. The gap between the rapid proliferation of AI and the slower development of management frameworks provides the practical basis for the imperative to restructure higher education management in Vietnam in response to AI's dual impact in the current context.

5. Proposing a comprehensive action framework to innovate higher education management in Vietnam in response to the dual impact of AI

5.1. Standardizing the management framework for the use of AI in training

Standardizing the management framework for the use of AI in training is an essential starting point for higher education institutions aiming to both harness learning benefits and control risks related to academic integrity and data security. The management framework should be standardized in a manner that is both sufficiently normative for enforcement and adequately adaptive to the rapid pace of technological change. Simultaneously, it must align consistently with the national orientation for digital transformation and AI development as outlined in Resolution No. 52-NQ/TW, Decision No. 749/QD-TTg, and Decision No. 127/QD-TTg. The core of standardization lies in delineating the boundary between AI as a supportive tool and AI as a substitutive. This boundary should be contextualized within the training setting. A suitable approach is to classify learning activities based on their relevance to core competencies. For instance, tasks requiring independent thinking, personal reasoning, or specific professional skills should have stricter limitations compared to tasks of a technical support nature, such as suggesting structures, checking for expression errors, or simulating scenarios.

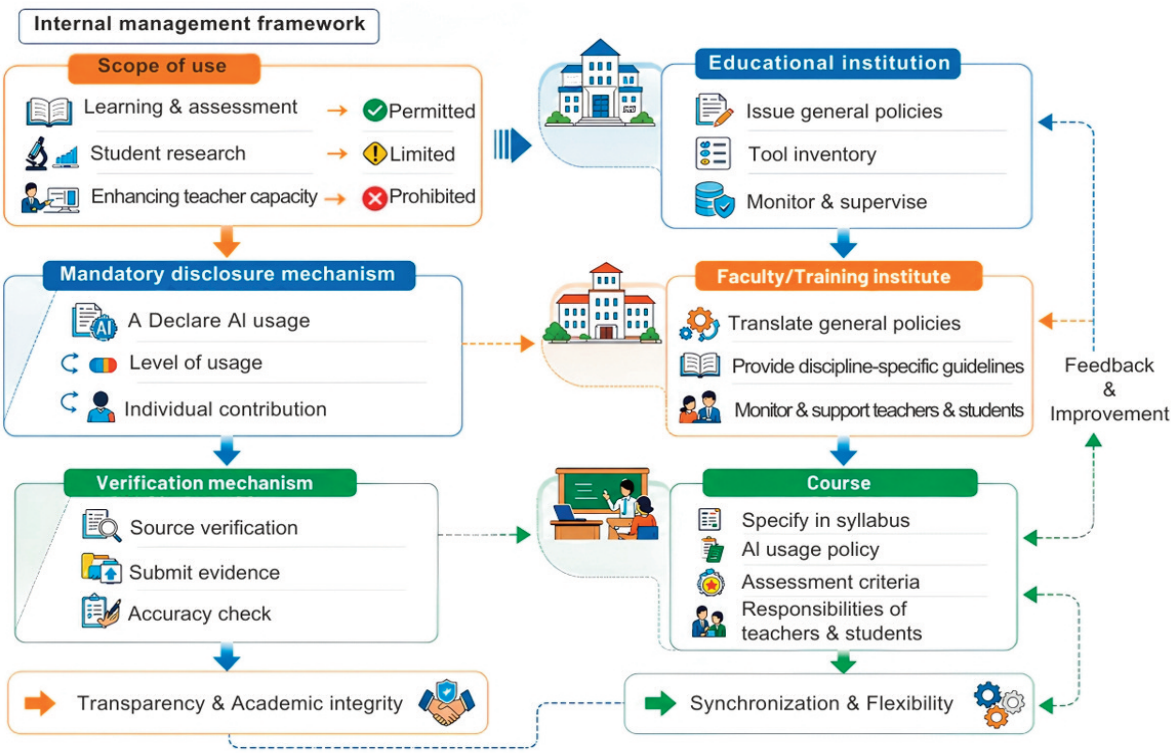
Based on this foundation, the study proposes an internal management framework designed with three layers and two governance levels (see *Figure 1*). Specifically, the three layers include:

(1) Defining the scope of usage according to the type of activity, such as regular learning, assessment and evaluation, student scientific research, and lecturers' professional activities. Each scope should clearly specify cases in which use is permitted, restricted, or prohibited due to direct conflicts with evaluation objectives.

(2) A mandatory declaration mechanism to ensure transparency. Learners must clearly state at which stages they utilize, the extent of their use, and their own contributions. Without a declaration mechanism, the requirement for academic integrity will be challenging to transform into a consistent basis for management and enforcement.

(3) A minimum verification mechanism to prevent academic misconduct. Requirements for source verification, submission of evidence for review, and accountability for the accuracy of referenced materials are fundamental elements of verification.

Figure 1. Management framework for the use of AI in training



Source: Proposed by the authors (2026).

Additionally, the management framework must clearly delineate responsibilities across governance levels (two levels). At the higher education institution level, responsibilities include issuing regulations, listing permissible tools for educational activities, and establishing data control mechanisms. At the faculty/institute level, responsibilities involve adapting the general framework into guidelines tailored to the specific characteristics of disciplines and learning outcomes. Within individual courses, instructors are responsible for concretizing AI usage requirements in course syllabi and evaluation criteria. Standardizing the management framework for the use of AI provides a foundation for the consistent implementation of evaluation, quality

assurance, and data control activities across the entire educational institution. Based on this management framework, solutions for evaluation, quality assurance, and data governance are supported by legal foundations and implemented consistently.

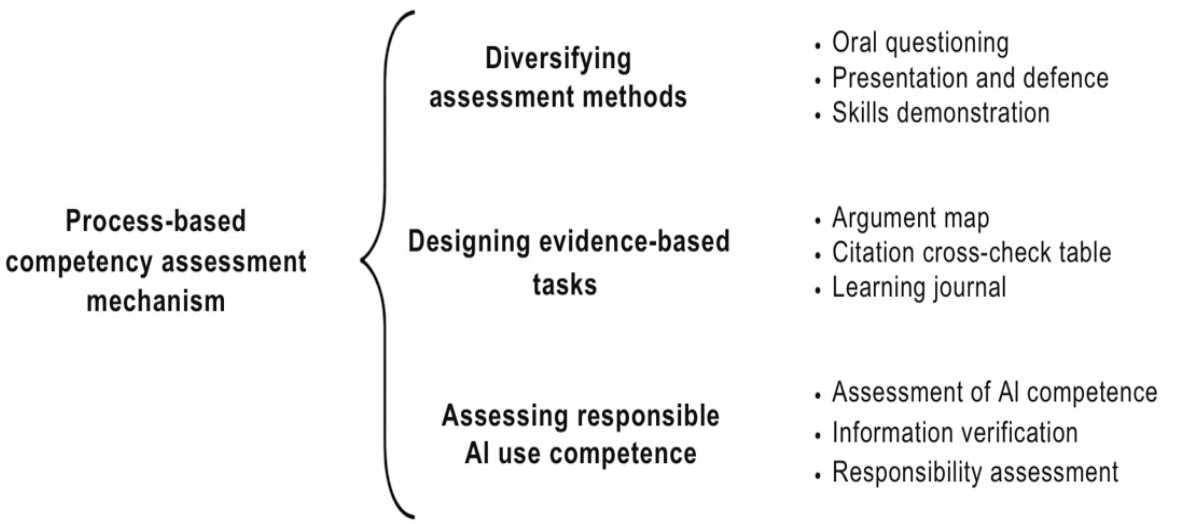
5.2. Restructuring the evaluation and quality assurance system in an AI-integrated environment

Several domestic studies indicate that students have begun using AI to assist in writing assignments, synthesizing materials, and explaining academic content (Vi, 2025). Assessment based solely on final outputs carries two risks: (1) Misjudging the actual competencies of learners; (2) Lowering academic quality standards due to difficulties in verifying the authenticity of arguments and cited sources. Therefore, innovation in training management in the digital era necessitates restructuring evaluations towards process-based management, while simultaneously upgrading internal quality assurance mechanisms to adapt to AI-integrated learning environments. The core of this restructuring lies in shifting from "product evaluation" to "assessment of competencies developed through the learning process". This does not imply completely negating the final product but rather situating it within a chain of verifiable evidence. How learners identified the problem, which sources they relied on, how they verified those sources, and where their personal contributions lie. In the context where AI can blur the boundaries between support and substitution, designing evaluations that require evidence of the process will better uphold the principles of fairness and academic integrity.

The evaluation mechanism needs to be simultaneously adjusted in three directions, including:

(1) Diversify assessment methods. Assessment forms based on direct interaction (oral examinations, defenses, presentations with peer review, skill demonstrations) help validate competencies and reduce reliance on written products. This approach balances direct assessment and outcome-based assessment to align with new conditions.

Figure 2. Mechanism for assessing learners' competencies through processes



Source: Proposed by the authors (2026).

Figure 2 illustrates the relationships among process evidence, direct assessment, and learners' accountability in an AI-enabled environment.

(2) Design learning tasks requiring evidence. Instead of assigning essay-based tasks, instructors should require learners to submit accompanying evidence components, such as argument maps, citation comparison tables, learning journals, or methodological explanations. Educational institutions need to establish a process for reviewing course syllabi based on AI integration criteria. For each course, it should be specified whether AI usage is permitted, what evidence is required, the proportion of direct assessment, and how source verification requirements are integrated. Additionally, there should be a mechanism for sample checks at the departmental or institutional level, such as randomly selecting certain courses, reviewing assessment records, evaluation rubrics, and processing evidence.

(3) Integrate the assessment of responsible AI usage competencies. Responsible AI usage competency is the ability to use AI tools appropriately within defined limits, verify outputs, declare the level of tool assistance, and take responsibility for the academic products submitted. These requirements are interconnected in a unified logic: AI can only be reasonably integrated into training when the boundaries of cognitive support are clearly defined, the assessment mechanism can trace processes, and data risks are controlled as part of quality assurance.

Instructors should treat the competence in responsible AI usage as an assessment component, including the ability to set appropriate requirements, verify output information, recognize the limitations of the tool, and declare the level of AI assistance during the completion of learning tasks. The use of AI by students is associated with both anticipated benefits and concerns about academic integrity; therefore, incorporating a competency in responsible AI use into assessments will help shift from passive control to a behavior-oriented approach.

5.3. Digital safety management and the school data ecosystem

If standardization utilizes AI to establish boundaries and accountability, and if assessment restructuring helps measure competencies more accurately, then data governance and digital safety serve as the infrastructural conditions for the sustainable operation of the entire management framework. In an AI-integrated environment, data becomes a core governance asset of educational institutions. Several Vietnamese universities are currently using public platforms, in ways that are often spontaneous and dependent on individual decisions by lecturers and students (Dzung, 2025). When learning data, exam questions, personal information, or internal documents are uploaded to external systems without regulatory oversight, the risks extend beyond information leakage to include potential impacts on evaluation fairness and the institution's academic reputation.

Therefore, data governance in an AI environment must be designed as an integrated component of training management. First and foremost, educational institutions need to clearly define principles for data classification. Which data is permissible for AI tools? Which data is restricted? And which data is absolutely prohibited from being used on external platforms? This classification must be based on the sensitivity level of the information, including personal data, unpublished exam questions, internal research materials, or information related to student assessment. Once classification principles are standardized, lecturers and students will have

clear guidelines for action, rather than relying on subjective judgment.

Alongside data classification is the mechanism for approval and monitoring of AI tools used in training. Educational institutions need to develop a list of authorized tools for teaching and learning activities, based on risk assessments and compliance with legal regulations. This list aims to establish a digital safety system to ensure that AI integration remains within governance control. This step also concretizes the institution's responsibility in ensuring a safe digital learning environment, aligned with the spirit of controlled digital transformation. At the institutional level, training management and information technology departments must collaborate to develop control procedures, including mechanisms for access authorization, data storage, and data disposal. At the faculty and course levels, lecturers must guide students on the limitations of data usage when interacting with AI. This stratification helps avoid the situation where "everyone is responsible, but no one is accountable", creating conditions for incident resolution when issues arise. Additionally, educational institutions need to establish a reporting channel for incidents involving data or improper use of AI, and clearly define procedures for verification, remediation, and notification. This mechanism not only minimizes damage when incidents occur but also strengthens the trust of lecturers and students in the management system.

5.4. Establishing enforcement and evaluation mechanisms to ensure the effectiveness of the management framework

First and foremost, the responsibility for implementation must be clearly identified. Educational institutions need to designate a focal point responsible for overseeing the deployment of the AI management framework across the institution, while also clearly defining the responsibilities of faculty leaders and lecturers in concretizing the requirements for integrating AI into course syllabi and assessment methods. When responsibilities are transparently delineated, accountability mechanisms can operate substantively rather than merely existing in reports. Concurrently, periodic monitoring tools should be established. Thus, integrating AI into training is a continuous transformation process that necessitates cyclical monitoring. Educational institutions should collect and analyze information on the extent of AI use in courses, the adoption of adjusted assessment methods, and incidents involving violations or disputes. This data is not intended to formalize reporting but to provide an empirical basis for adjusting internal policies. When management is based on systematic information, institutional responses shift from reactive to proactive in alignment with trends.

Monitoring is only meaningful when coupled with substantive inspection. Random reviews of course syllabi, audits of assessment records, or cross-evaluations among units are tools that should be incorporated into quality assurance processes. Without specific inspection activities, principles of process transparency or data control will be challenging to enforce uniformly. Conversely, when lecturers and training units recognize that AI integration falls within the quality assurance system's official oversight scope, compliance will become part of the academic culture rather than merely an administrative requirement.

Parallel to monitoring is the mechanism for addressing violations and adjusting policies. In a rapidly evolving technological environment, errors or violations cannot be entirely eliminated. The handling process must ensure transparency and consistency, while also distinguishing between violations stemming from ignorance and those

committed intentionally. When the handling mechanism is clearly designed, the management system can avoid two extremes: being overly stringent, stifling creativity, or being too lenient, eroding academic standards. In practical implementation, as previously mentioned, it is essential first to clearly identify the responsible entities at each level: the institutional level issues general regulations, approves tools, and organizes monitoring; the departmental or institute level translates the general framework into discipline-specific guidelines; and faculty members concretize AI usage requirements in courses and assessments. Additionally, implementation is only feasible when three fundamental conditions are met: (1) Internal regulations are developed in a unified and clear manner; (2) Effective coordination mechanisms are established among training, examination and assessment, information technology, and quality assurance units; and (3) Regular training activities are organized to enhance the capacity of faculty and learners.

In terms of prioritization, educational institutions should first implement content that directly impacts quality and control capabilities, such as declaring the use of AI, adjusting process-based assessments, and establishing data governance principles. For institutions with varying levels of readiness, this action framework can be applied flexibly: institutions with robust infrastructure and governance capacity can implement comprehensively, while those with lower readiness levels should start with foundational and less costly solutions. Thus, the effectiveness of the entire action framework does not lie in the level of detail in regulatory documents but in the effective translation of regulations into practices that are monitored and adjusted. When responsibility, supervision, and adjustment are organized into a unified enforcement mechanism, the AI management framework in training can effectively function in practice.

6. Conclusion

The rapid development of AI is placing Vietnamese higher education before a structural adjustment requirement. AI is not merely a tool for learning support but a factor that transforms the way knowledge is formed, competencies are assessed, and training management systems operate. This article has identified the largest gap currently existing as the disparity between the speed of AI application and the adaptability of management mechanisms. To bridge this gap, training management needs to be restructured to promote transparency in the learning process, enhance accountability, and integrate data governance and digital safety into quality assurance systems. When AI usage is standardized, assessments are designed based on process evidence, and data is tightly controlled, AI can become a tool to enhance training quality rather than diminish academic standards. Thus, innovation in training management in the digital era is not about adding isolated regulations but about redesigning governance structures to encourage innovation while maintaining academic integrity. This is an important condition for Vietnamese higher education to sustainably adapt to the rapidly changing technological environment.

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