

Responsible Artificial Intelligence Governance in Academic Management in Vietnamese Higher Education Today

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Abstract

Original Research

The rapid development of artificial intelligence (AI) is reshaping the ways in which higher education institutions organize, operate, and deliver academic services. In academic management, AI not only supports the automation of academic administration processes, academic advising, early-warning systems, learner data analytics, and decision support, but also raises new issues related to data, trust, transparency, accountability, and learners' rights. Drawing on data-driven university governance, learner-centered approaches, and the principles of responsible AI, this article clarifies the content of responsible AI governance in higher education academic management; identifies the governance risks that arise when AI is applied to academic management processes; and, on that basis, proposes principles and a responsible AI governance model appropriate to the current context of Vietnamese higher education.

Keywords: artificial intelligence; responsible AI; academic management; university governance; learner data.

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1. Introduction

Digital transformation has become one of the key orientations for the reform of higher education in Vietnam. Decision No. 131/QĐ-TTg dated 25 January 2022 of the Prime Minister on strengthening the application of information technology and digital transformation in education and training for the period 2022–2025, with orientations toward 2030, has established the requirement to accelerate digitalization, develop digital platforms, and improve management effectiveness across the education sector. In this context, artificial intelligence is no longer an external or peripheral technology but is gradually entering the core activities of

universities, from teaching, assessment, and scientific research to academic management and learner services.

In higher education academic management, AI is being applied to a wide range of processes, including the provision of academic information, support for course registration, automated responses to students' inquiries, learning pathway recommendations, academic advising support, analysis of study progress, early warnings of delayed progress or dropout risk, analysis of learner feedback, and support for governance decision-making. These applications can reduce transaction costs in academic administration, improve the quality of student

services, enhance the personalization of learning support, and improve institutional operational efficiency. International reviews of AI in higher education also show that AI has been researched and applied in such areas as learner profiling, prediction of academic performance, recommender systems, automated assessment, and adaptive learning support (Zawacki-Richter et al., 2019). However, when AI is introduced into academic management, the issue is not confined to the technical capacity of the system. AI in academic management is directly linked to learner data, privacy, fairness in recommendations or warnings, algorithmic transparency, institutional accountability, and learners' trust in decisions supported by technology. UNESCO (2021) emphasizes a humanistic approach that respects human rights and upholds transparency, fairness, and responsibility in the development and deployment of AI. OECD (2019) similarly sets out principles for trustworthy AI, including inclusive growth, human-centered values, transparency, safety, security, and accountability. These principles are particularly significant for higher education, where learners are simultaneously beneficiaries of educational services, data subjects, and persons affected by data-driven governance decisions.

In Vietnam, AI governance in higher education should be situated within the relationship among digital transformation in education, university autonomy, personal data protection, and the improvement of academic management quality. Decree No. 13/2023/ND-CP on personal data protection has created important legal requirements for organizations in the collection, processing, storage, and use of personal data. This is directly relevant to AI systems in academic management, because learner data may include personal information, academic results, course registration history, interactions with digital systems, academic feedback, and indicators of learning risk. From this reality, the article argues that academic management in higher education cannot approach AI as a neutral technical tool; rather, AI should be viewed as a component of the governance system. This requires higher education institutions to develop

a responsible AI governance model that balances managerial efficiency, technological innovation, the protection of learners' rights and interests, and the institutional responsibility of the university.

2. Responsible AI Governance in Academic Management and Common Governance Risks

Responsible AI may be understood as an approach to the design, development, deployment, and use of AI that ensures AI systems serve human beings, respect human rights, mitigate risks, and uphold fairness, transparency, safety, explainability, and accountability. At present, AI is increasingly becoming a matter of governance and legal concern as it is applied widely across social activities. UNESCO (2021) regards the ethics of AI as an issue linked to human rights, human dignity, fairness, diversity, inclusion, transparency, accountability, and human oversight. OECD (2019) emphasizes that trustworthy AI must promote social benefit, respect the rule of law, human rights, democratic values, transparency, and safety. NIST (2023) approaches responsible AI from the perspective of risk governance, stressing the identification, measurement, management, and monitoring of risks throughout the AI system life cycle.

In higher education, responsible AI must be understood in relation to the specific characteristics of the academic environment, where learners are simultaneously service recipients, data subjects, and persons affected by decisions supported by technology. Holmes, Bialik, and Fadel (2019) argue that AI in education has the potential to support personalized learning, automate feedback, and improve educational effectiveness, but it also raises significant questions concerning ethics, data, and the role of teachers. Zawacki-Richter et al. (2019) point out that much of the existing research remains oriented toward technical and application-related aspects, while the roles of educators, learners, and ethical issues have not received commensurate attention. This suggests the need to move from the question "what can AI

do?” to the question “how should AI be governed?” In the context of contemporary higher education academic management, responsible AI governance has a more specific meaning. It refers to the process of establishing policies, principles, procedures, data mechanisms, oversight mechanisms, and responsibilities of relevant actors to ensure that the application of AI in academic management is transparent, safe, fair, controlled, and learner-centered. While AI in teaching is primarily associated with instruction, learning, and assessment, AI in academic management is associated with administrative processes, academic support, data analytics, and governance decision-making. Therefore, the impact of AI in academic management is not only pedagogical but also institutional.

As the use of AI in university governance becomes increasingly common, three levels of AI application in higher education academic management can be identified. The first level is AI for academic information and service support. At this level, AI may be used in the form of chatbots, virtual assistants, or automated question-and-answer systems to provide information on academic regulations, class schedules, course registration, tuition fees, grades, learning outcomes, graduation requirements, and academic procedures. The study by Nguyen Duy Phuong, Tran Viet Chau, and Tran Nguyen Minh Thu (2022) on a virtual academic advising system for university students demonstrates the possibility of building an automated response system based on academic regulation data, thereby reducing repetitive queries and improving students' access to information. The second level is AI for analytics and recommendations. AI can analyze learning data to recommend courses, suggest learning pathways, support academic advising, detect signs of delayed progress, or issue risk warnings. Tran Nguyen Minh Hieu, Tran Van Lang, and Nguyen Quoc Huy (2025), in their survey of recommender systems for academic advising, show that recommender systems can support course selection, personalize advising, and improve the effectiveness of academic advising. Nguyen Thi Loan (2025) also proposes an

integrated model combining learning analytics and AI to support students at risk, thereby demonstrating the potential of using data to identify cases requiring timely assistance. The third level is AI for governance decision support. At this level, AI can be used to analyze large-scale training data, forecast demand for course offerings, identify bottlenecks in curricula, evaluate the quality of academic services, analyze student feedback, support quality assurance, and provide evidence for policy adjustments in academic management. This level has deeper implications, because AI no longer supports only individual learners but also participates in the operation and governance of higher education institutions.

These three levels show that AI in academic management changes the relationship among the university, learners, data, and governance decisions. Learners are not merely users of academic services; they are also sources of data. Universities do not manage only through documents, regulations, and administrative records, but increasingly through data systems, digital platforms, and algorithms. Therefore, responsible AI governance in academic management must simultaneously ensure three requirements: improving management effectiveness; protecting the legitimate rights and interests of learners; and maintaining institutional accountability.

In the Vietnamese context, responsible AI governance in academic management should be placed in the relationship among digital transformation in education, national AI development, and personal data protection. Decision No. 127/QĐ-TTg of 2021 provides a basis for promoting AI research, development, and application; Decision No. 131/QĐ-TTg of 2022 provides a basis for advancing digitalization in educational management; Decree No. 13/2023/ND-CP establishes requirements for personal data protection; and the 2015 Law on Cyberinformation Security and the 2018 Law on Cybersecurity provide additional legal foundations for information system safety and cybersecurity. Accordingly, AI governance in academic management cannot be regarded merely as a technical task of the

information technology unit; it must be understood as a governance issue at the institutional level.

The application of AI in higher education academic management can generate many benefits, but it also gives rise to governance risks. These risks do not arise solely from technical errors in systems; they also stem from how universities define purposes of use, collect data, design algorithms, organize processes, assign responsibilities, and communicate with learners.

First, there are risks related to learners' personal data and privacy. AI systems in academic management often require large amounts of data, including identity information, academic results, course registration history, attendance, academic feedback, digital interaction histories, learning-warning data, and information related to study progress. Such data can help universities support students more effectively, but they may also create privacy risks if collected excessively, used for inappropriate purposes, shared without proper control, or stored insecurely. Jones (2019) argues that, in learning analytics, informed consent mechanisms are important conditions for protecting students' privacy and autonomy. Mutimukwe, Twizeyimana, and Viberg (2021) likewise emphasize that students' privacy concerns are among the central issues in learning analytics. In Vietnam, Decree No. 13/2023/ND-CP on personal data protection further clarifies the legal requirements for higher education institutions when collecting and processing learner data.

Second, there are risks of algorithmic bias and unfairness. AI does not automatically guarantee fairness. AI systems may reproduce bias from historical data, indicator design, assumptions embedded in the model, or the interpretation of outputs. For example, an early-warning system that relies only on grades, login frequency, or absence records may fail to reflect students' individual contexts, such as economic hardship, health conditions, family responsibilities, limited access to devices, or restricted access to digital infrastructure. Starke, Baleis, Keller, and Marcinkowski (2022) show that people's

perceptions of algorithmic fairness depend on many factors, including the context of use, type of decision, degree of impact, and explainability of the system. In higher education, algorithmic fairness is therefore not merely a technical problem but also a social, ethical, and governance issue.

Third, there are risks of insufficient transparency and limited explainability. In academic management, recommendations or warnings generated by AI may affect students' study plans, graduation progress, course choices, or psychological well-being. If students do not know why they received a particular recommendation or warning, what data the system used, what criteria were applied, and what the system's limitations are, they may feel monitored or unfairly assessed. Tran Nguyen Minh Hieu (2025), in examining explainable recommender systems, shows that explainability plays an important role in increasing users' trust in and acceptance of recommender systems. This has direct significance for academic management, because academic recommendation systems that cannot explain their outputs will find it difficult to build learner trust.

Fourth, there are risks related to accountability. When an AI system provides an incorrect recommendation, issues a false warning, or misclassifies a student into a risk group, the question arises as to who is responsible: the university, the academic affairs office, the academic advisor, the information technology unit, the software provider, or the system operator. Without a clear mechanism for assigning responsibility, AI can create a "grey zone of accountability," in which actors can easily shift responsibility to algorithms or data. NIST (2023) emphasizes accountability as an important attribute of trustworthy AI. In academic management, accountability requires the university to clearly define who is responsible for input data, who checks outputs, who has authority to use analytics results, who makes the final decision, and who handles students' complaints.

Fifth, there are risks of excessive automation and

the weakening of the human role. AI can support decision-making, but it should not completely replace the professional judgment of managers, academic advisors, and lecturers. Academic management is not only the processing of data; it is also a process of understanding context, listening to learners, providing advice and support, and making decisions appropriate to specific circumstances. If universities depend excessively on automated indicators, management processes may become mechanical, less humane, and less sensitive to individual factors. UNESCO's guidance on generative AI in education and research emphasizes the need to maintain a human-centered vision and to develop human capacities when applying AI in education (Miao & Holmes, 2023).

Sixth, there are risks related to learner trust. Students may use AI because it is convenient, but that does not mean they fully trust AI or trust the university's use of their data. Bilquise, Ibrahim, and Salhieh's (2024) study on academic advising chatbots in higher education shows that students' intention to accept chatbots is influenced by functional, social-emotional, and relational factors. This suggests that, in the university environment, technology acceptance depends not only on perceived usefulness and ease of use but also on trust, the feeling of being supported, and the quality of the relationship between learners and the institution. Studies in Vietnam on students' use of ChatGPT also show that, alongside positive aspects, learners remain concerned about accuracy, dependence on tools, and effects on independent learning capacity (Dang Van Em et al., 2024; Le Thi Anh Tuyet et al., 2025).

Seventh, there are risks related to governance capacity and the digital competence of staff. Even a well-designed AI system may operate poorly if users do not know how to interpret results, recognize system limitations, or intervene when errors occur. In academic management, academic affairs staff, academic advisors, and managers need data literacy, AI literacy, and the ability to assess technological risks. Without these capacities, AI may be used as a "black box," increasing the risk of mechanical decision-making and reducing the

quality of learner support.

Eighth, there are legal and reputational risks. When AI processes learner data or supports decisions that affect students' interests, operational errors may lead to complaints, disputes, violations of personal data protection regulations, or damage to the reputation of higher education institutions. In the context of increasingly stringent regulations on personal data, information security, and cybersecurity, AI governance is no longer a voluntary matter but a requirement linked to legal compliance and the university's social responsibility.

Principles for Developing a Responsible AI Governance Model The development of a responsible AI governance model in higher education academic management should begin with the recognition that AI is not merely a technical tool for operational support, but a component involved in the organization, coordination, and decision-making processes of the university. Therefore, AI governance cannot stop at selecting software, building databases, or automating academic administration procedures; it must be situated within a comprehensive set of principles concerning learners' rights, institutional responsibility, data security, transparency, and human oversight. This is the condition under which AI can contribute to improving the quality of academic management without undermining the humanistic, fair, and accountable character of higher education.

First of all, an AI governance model in academic management must be built on a learner-centered foundation. In the university environment, students are not only beneficiaries of academic services but also data subjects and persons directly affected by recommendations, warnings, or analytics generated by AI systems. Therefore, the application of AI should aim to improve the academic service experience, support learning, reduce the cost of accessing information, and increase the capacity for timely intervention in cases requiring support. If AI serves only the purposes of control, surveillance, or administrative optimization without improving learners' rights and experiences, it will be difficult to achieve consensus. This approach is

consistent with UNESCO's (2021) view that AI must be developed and used in a human-centered manner that respects human dignity, rights, and interests.

From the learner-centered principle, transparency becomes a foundational condition of responsible AI governance. In academic management, students need to know at which stages AI is used, for what purposes, what types of data are collected and processed, how analytics results may affect their learning, and what rights they have to respond or request explanations. Transparency does not necessarily mean disclosing the entire source code or technical details of an algorithm; however, the university must ensure that learners and stakeholders understand the basic operating logic, scope of impact, and limitations of the system. For applications such as early-warning systems for learning risks, course recommendation systems, or virtual academic advising, transparency is especially important because recommendations or warnings may affect students' study plans, psychological state, and perceptions of fairness. Research on explainable recommender systems also shows that explainability is an important condition for increasing users' trust in and acceptance of AI systems (Tran Nguyen Minh Hieu, 2025).

Transparency must be accompanied by accountability. When AI is used in academic management, the university must clearly define the responsibilities of each actor throughout the system life cycle: from technology selection, data design, and system operation to the use of analytics results and the handling of students' feedback and complaints. Algorithms must not become a "grey zone of accountability," where errors are attributed to technical systems without any specific actor assuming responsibility. In processes that directly affect learners' academic rights and interests, such as academic warnings, assessment of delayed-progress risk, proposed advising interventions, or learning pathway recommendations, it is necessary to make clear that AI plays only a supporting role, while final decisions must belong to authorized human actors. This is also consistent with the general spirit of trustworthy AI governance frameworks,

in which accountability is regarded as an indispensable condition for ensuring that AI is used safely and under control (NIST, 2023; OECD, 2019). Another pillar of responsible AI governance is the protection of learners' personal data and privacy. AI in academic management can function only when data are available, but data themselves are also the source of many risks. Learner data include not only administrative information but also academic results, study progress, course registration history, interactions on digital systems, academic feedback, and indicators of learning risk. These data are valuable for academic governance, but they may also affect students' privacy and learning opportunities if processed without sufficient control. Therefore, universities must comply with the principles of clear purpose, limitation of use, data minimization, access control, system security, and controlled data sharing. In the Vietnamese context, this requirement should be situated within the framework of Decree No. 13/2023/ND-CP on personal data protection, the 2015 Law on Cyberinformation Security, and the 2018 Law on Cybersecurity.

In addition to data protection, algorithmic fairness should also be regarded as an important principle. AI systems may provide recommendations, warnings, or classifications based on historical data; however, historical data are not always neutral. If input data reflect existing inequalities, or if analytical models ignore the diverse circumstances of learners, AI systems may generate unfair outcomes. For example, students from disadvantaged economic backgrounds, students with limited access to learning devices, students who have to work part-time, or students in special personal circumstances may be assessed as being at higher risk if the model relies only on quantitative indicators such as login frequency, grades, or absence records. Therefore, fairness in AI governance is not only a technical matter but also an ethical and institutional one. Universities need to regularly assess the impact of AI systems on different groups of students and maintain mechanisms that allow learners to respond, provide contextual information, and request

reconsideration of analytical results when necessary. Responsible AI governance also requires maintaining human oversight throughout the entire operational process. AI can help universities identify trends, detect risks, provide recommendations, and process data more quickly, but AI cannot fully replace human judgment, contextual understanding, and ethical responsibility in education. Academic management is not merely an information-processing activity; it is also a process of support, advising, accompaniment, and creating conditions for learners to develop. Therefore, decisions that significantly affect students' academic rights and interests must involve authorized managers, academic advisors, lecturers, or professional councils. This principle is especially important when AI is used to issue academic risk warnings, propose advising interventions, or support decisions related to students' study progress.

An appropriate AI governance model must also take into account the specific conditions of each higher education institution. Universities do not have the same levels of readiness in technological infrastructure, data quality, staff capacity, management processes, and organizational culture. Therefore, AI deployment should follow a suitable roadmap and avoid mechanically copying available models or implementing AI as a matter of trend. Domestic studies on virtual academic advising, academic chatbots, and recommender systems for academic advising show that AI is effective only when designed on the basis of academic regulations, academic data, and the practical needs of learners at each institution (Nguyen Duy Phuong et al., 2022; Tran Nguyen Minh Hieu et al., 2025). Responsible AI governance must therefore be linked to specific organizational capacity rather than relying solely on the technical capacity of software. Finally, AI governance should be viewed as a continuous process, not as a one-time action before technology deployment. AI systems may change as data, models, user interactions, and institutional management requirements change. Therefore, mechanisms are needed to periodically assess impact in relation to

effectiveness, accuracy, fairness, transparency, personal data protection, and learner satisfaction. Such assessment should be integrated into the internal quality assurance system of higher education institutions and connected to continuous improvement mechanisms. Only when AI is regularly monitored, evaluated, and adjusted can it become an effective, safe, and responsible tool for supporting academic management.

3. Proposing an AI Governance Model for Academic Management in the Current Context

From the analysis of the content, risks, and principles of responsible AI governance, it can be seen that the application of AI in higher education academic management cannot be approached as a stand-alone technical activity. If AI is regarded merely as software for academic Q&A support, a data analytics tool, or an early-warning system, higher education institutions can easily fall into a simplified approach in which technology is deployed first, while policy, data, responsibility, and oversight mechanisms are added later. This approach entails many risks, especially when AI participates in processes directly related to learner data, study progress, academic advising, and governance decisions. Therefore, in the current context, an AI governance model for higher education academic management should be designed as an integrated governance model that places technology in an organic relationship with institutions, data, people, processes, and accountability.

Overall, a responsible AI governance model in higher education academic management can be conceptualized as a structure composed of six interconnected components: the governance institution plays the orienting role; learner data provide the operational foundation; AI technology serves as a support tool; human actors remain the center of control and decision-making; academic management processes constitute the space in which AI is integrated; and monitoring and impact assessment function as mechanisms for ensuring responsibility. These six components do not exist separately but form

a continuous governance cycle. In this cycle, the university establishes the purposes and principles of AI use, organizes data for academic purposes, selects appropriate technologies, allocates responsibilities among actors, integrates AI into academic procedures, and then regularly evaluates impacts in order to adjust policies and improve the system. This approach is consistent with NIST's (2023) AI risk governance approach, UNESCO's (2021) recommendations on AI ethics, and the requirements of personal data protection in the current Vietnamese legal context.

The first and foundational component is the governance institution. Before deploying any AI application in academic management, a higher education institution needs to develop an internal policy framework on the use of AI in academic affairs and academic governance. This policy framework should clarify the scope in which AI may be used, the purposes it serves, the data that may be processed, the actors who may access the data, how analytics results may be used, and where accountability lies. This is the fundamental difference between “applying AI” and “governing AI.” Applying AI primarily answers the question of what technology can do, whereas governing AI must answer the question of what the university allows AI to do, within what limits, under whose control, and for whose benefit. In the context of Vietnamese universities accelerating digital transformation under Decision No. 131/QĐ-TTg, the development of an internal institutional framework is all the more necessary to ensure that digital transformation in academic management is not merely the digitalization of procedures but also the modernization of governance on the basis of responsibility and transparency.

On that institutional foundation, learner data governance should be regarded as the core of the model. AI in academic management can operate effectively only when universities have data that are reliable, standardized, updated, and managed according to clear principles. However, learner data are not a resource that can be exploited arbitrarily. They are data linked to privacy, personal identity, learning opportunities, and students' educational experiences. Therefore,

universities need to develop a data map for academic management, identifying the categories of data collected, data sources, purposes of processing, retention periods, sensitivity levels, access rights, and protection mechanisms. Data such as academic results, course registration histories, study progress, academic warnings, student feedback, or learning risk indicators should be classified and controlled more strictly than ordinary administrative data. This approach is consistent with the principles of personal data protection under Decree No. 13/2023/ND-CP and with the requirements of data-driven university governance.

From an operational perspective, data governance is not only about protecting privacy; it also determines the quality of AI systems. Inaccurate, outdated, unrepresentative, or fragmented data may cause AI to provide misleading recommendations, inaccurate warnings, or reproduce inequalities among groups of students. Therefore, before applying AI to complex functions such as early warnings, learning pathway recommendations, or academic advising support, universities need to check data quality, standardize data-entry processes, and clearly assign responsibility for data to relevant units. In other words, AI governance must begin with data governance. A modern AI model built on poorly controlled data will not produce intelligent governance; rather, it may automate management errors and make them more difficult to detect.

The next component of the model is technology governance. In the context of a rapidly developing educational technology market, universities may face many options, such as academic chatbots, virtual assistants, learning analytics systems, course recommender systems, risk prediction tools, or AI-integrated academic management platforms. However, technology selection must be guided by governance criteria, not merely by utility criteria. Universities need to evaluate AI systems according to their compatibility with academic regulations, ability to integrate with existing databases, reliability of outputs, explainability, auditability, security, and

the extent to which they allow human control. Low-impact AI applications, such as chatbots that provide general academic information, may be deployed first with moderate control mechanisms. By contrast, higher-impact applications, such as dropout-risk warnings, risk-based student classification, or proposed academic interventions, require more stringent assessment because they may directly affect learners' rights, psychological state, and study progress.

In this model, human actors do not stand outside technology; they are the center of the entire governance system. AI can support data processing, detect trends, and provide recommendations, but decisions with educational significance must remain with authorized human actors. Academic managers, academic advisors, lecturers, information technology staff, and quality assurance units should have clearly defined roles in operating AI. Academic advisors should not be replaced by recommendation systems; rather, they should be supported by data so that their advising becomes more accurate and timely. Academic affairs staff should not passively accept AI analytics outputs; they need the capacity to interpret, verify, and critically assess results provided by AI. Students should also not be placed in a passive position before automated warnings or recommendations; they need the right to know, to receive explanations, and to respond. Thus, human governance in this model includes developing AI literacy for staff, improving data awareness among learners, and maintaining human intervention mechanisms in important decisions.

A responsible AI governance model can operate effectively only when AI is integrated into academic management processes in a controlled manner. This means that each AI application must be linked to a specific academic procedure, with clear inputs, outputs, responsible actors, and feedback mechanisms. For instance, if AI is used to issue early warnings for students at risk of delayed progress, the process cannot stop at the

automatic delivery of warnings. The university must identify what data are used to generate warnings, who checks warnings before they are sent, how students receive the information, how academic advisors intervene, whether students have the right to explain or provide contextual information, and how the outcomes of support after the warning are monitored. Similarly, if AI is used to recommend courses, it is necessary to clarify whether the recommendation is mandatory or advisory, whether it is explained to students, whether academic advisors have a validation role, and whether students may choose differently from the recommendation. It is the process, rather than the algorithm itself, that determines whether AI is used responsibly.

At the organizational level, an AI governance model in academic management requires inter-unit coordination. AI does not belong solely to the information technology department, nor is it only the work of the academic affairs office. AI deployment involves academic management units, information technology centers, legal units, quality assurance departments, faculties, academic advisors, lecturers, and learner representatives. Therefore, universities should establish a coordinating mechanism, such as a task force or advisory council on AI in education and academic management. This mechanism would be responsible for advising on policy, assessing risks, monitoring implementation, receiving feedback, and proposing adjustments. The participation of multiple actors helps limit the tendency to deploy AI according to a purely technical logic, while also increasing the legitimacy and feasibility of the system.

Alongside coordination, the AI governance model must place strong emphasis on monitoring and impact assessment. This stage is often underestimated when educational institutions focus on technology deployment. In practice, an AI system may function well during experimentation but generate problems when data change, academic regulations are revised, user behavior shifts, or the scope of use expands. Universities therefore need to develop a set of

indicators for periodically evaluating AI in academic management. These indicators should measure not only operational effectiveness, such as the number of questions answered automatically, reduced processing time for academic procedures, or the proportion of students receiving early warnings, but also dimensions of responsibility, such as the accuracy of recommendations, rate of false warnings, student satisfaction, explainability of the system, degree of personal data protection, impact on different learner groups, and number of AI-related feedback items or complaints. Only through impact assessment can universities obtain a basis for adjusting the model, reducing risks, and improving governance quality.

In current Vietnamese conditions, this model should be implemented through a cautious roadmap appropriate to each higher education institution's level of readiness. In the initial stage, universities should prioritize low-risk AI applications that generate clear benefits, such as chatbots supporting searches for academic regulations, class schedules, academic procedures, graduation requirements, or frequently asked questions. These applications can reduce the workload of academic management units, improve students' access to information, and create an initial foundation for a culture of AI use in the university. In the next stage, when data have been more fully standardized and staff have developed stronger operational capacity, universities may expand to medium-complexity applications such as academic advising support, course recommendations, student feedback analysis, or study progress monitoring. Only when the data system, accountability procedures, and oversight mechanisms are sufficiently robust should universities deploy higher-impact applications such as early-warning systems for academic risk, dropout-risk prediction, or decision support at the program-governance level.

The AI governance model in higher education academic management should therefore not be understood as a fixed technical diagram, but as a

dynamic governance framework. This framework allows universities to harness the potential of AI while controlling the risks arising from its use. The core of the model is the balance between innovation and responsibility: innovation to improve the effectiveness of academic management, but responsibility to protect learners' rights and interests; innovation to use data more intelligently, but responsibility to ensure that data are not abused; innovation to support faster decision-making, but responsibility to preserve human judgment in matters of educational significance. If designed in this way, AI can become an important tool for modernizing academic management in Vietnamese higher education and contribute to the formation of a transparent, humane, and data-driven model of university governance.

4. Conclusion

AI is opening up many new possibilities for higher education academic management, especially in academic service support, academic advising, learner data analytics, early warning of risks, and decision support. However, as AI participates more deeply in academic management processes, the issues at stake are not only technical effectiveness but also personal data, privacy, transparency, fairness, accountability, and learner trust. This article shows that responsible AI governance is a necessary requirement for higher education institutions to effectively harness the potential of AI while controlling the risks that arise. An AI governance model for academic management should be built on the connection among institutions, data, technology, people, processes, and oversight mechanisms. In such a model, learners must be placed at the center; learner data must be protected; AI-generated recommendations must be transparent and explainable; and AI must always remain under human control. In the current Vietnamese context, universities need to proactively develop internal policies on the application of AI in academic management, standardize data,

improve the digital competence of managers and students, and establish regular impact assessment mechanisms. Only when governed responsibly can AI become a tool for renewing academic management in a modern, transparent, humane, and sustainable direction?

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Disclaimer (Artificial intelligence)

Author(s) hereby declare that AI-assisted language editing tools were used only to support language polishing and revision. The authors remain fully responsible for the study design, data, analysis, interpretation, references, and final content of the manuscript.

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