

Navigating Digital Transformation: Lifelong Learning Pathways for Faculty Development in Vietnamese Higher Education

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HOW TO CITE:

Pham The Hung (2026).
Navigating Digital Transformation:
Lifelong Learning Pathways for
Faculty Development in
Vietnamese Higher Education.
International Journal of Special
Education, 41(13s), 1570-1580

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ABSTRACT:

The rapid advancement of digital technologies is fundamentally transforming the roles and competencies of university lecturers worldwide. In Vietnam, this shift is intensified by ongoing higher education reforms, the expansion of digital learning platforms, and the growing integration of artificial intelligence (AI) into teaching and research. In this context, lifelong learning has become essential for lecturers to maintain academic quality and adapt to evolving educational demands.

This study employs a qualitative approach based on systematic literature review and conceptual analysis to examine the theoretical foundations and practical challenges of lifelong learning among Vietnamese university lecturers. It highlights key challenges, including the need for continuous digital pedagogy development, the transition to learner-centered and technology-enhanced teaching, increasing workload pressures, and concerns about academic integrity associated with generative AI. Additionally, lecturers must respond to Generation Z learners' preferences for interactive and flexible learning environments.

The study proposes a strategic framework tailored to Vietnam, emphasizing institutional support for professional development, enhancement of digital competencies, expanded access to open educational resources, strengthened international collaboration, and the effective integration of AI in education. Promoting a culture of lifelong learning is crucial for improving teaching quality, fostering innovation, and ensuring the sustainability of higher education in the digital era.

Keywords: Lifelong learning; university lecturers; Vietnamese higher education; digital transformation; professional development; artificial intelligence.

Introduction

The contemporary global knowledge economy is undergoing a profound paradigm shift, catalyzed by the relentless proliferation of digital technologies that are fundamentally reconfiguring the architecture of higher

education. Disruptive innovations—including artificial intelligence (AI), big data analytics, cloud computing, and advanced digital learning platforms—have transcended their roles as mere instructional tools; they now actively redefine the epistemological foundations of knowledge dissemination, pedagogical engagement, and

institutional collaboration. Consequently, higher education institutions (HEIs) worldwide are rapidly transitioning away from rigid, transmissive, teacher-centered instructional models toward dynamic, technology-enhanced, and learner-centric educational ecosystems.

Within this digitized landscape, the professional identity of university faculty members is experiencing a significant evolution. Once regarded primarily as the singular custodians and dispensers of academic knowledge, modern lecturers are now compelled to operate as multifaceted facilitators of learning, curriculum designers, mentors, and digital innovators. This pedagogical evolution requires faculty members to seamlessly integrate sophisticated digital technologies into their instructional repertoires, cultivate highly interactive learning environments, and equip students with the higher-order cognitive capabilities and critical thinking skills essential for navigating an increasingly volatile global landscape.

In the context of Vietnam, this technological transition intersects with comprehensive, state-mandated higher education reforms enacted over the past decade. Strategic government directives prioritizing national digital transformation and the institutionalization of "smart education" have placed immense pressure on Vietnamese HEIs to modernize their infrastructures, expand hybrid and online delivery modalities, elevate empirical research outputs, and strengthen international collaborative networks. As the primary agents of this institutional evolution, Vietnamese university lecturers face escalating demands to simultaneously update their disciplinary expertise, refine their pedagogical methodologies, and cultivate advanced digital fluencies in real time.

Accordingly, lifelong learning (LLL) has emerged as an absolute, non-negotiable imperative for faculty members within the Vietnamese higher education sector. Moving far beyond the scope of episodic professional development or sporadic training workshops, LLL represents a continuous, systematic commitment to knowledge acquisition, skill refinement, and

critical reflexive practice throughout an academic career. For contemporary lecturers, this continuous developmental trajectory encompasses the sustained mastery of emerging digital pedagogies, active engagement in high-impact scientific research, and the recalibration of instructional strategies to meet the distinct socio-cognitive profiles of modern learners.

This demand for pedagogical adaptation is further intensified by the demographic shift toward Generation Z and the impending arrival of Generation Alpha. As true digital natives, these student cohorts exhibit unique learning preferences characterized by demands for hyper-flexibility, personalization, and interactive engagement mediated through digital platforms. To maintain pedagogical relevance, lecturers must deploy innovative methodologies—such as flipped classrooms, gamified learning, and blended approaches—that leverage technology to foster collaborative inquiry and real-world problem-solving.

However, a substantial disconnect remains between the conceptual idealized mandate of lifelong learning and the empirical realities confronting Vietnamese academics. Faculty members frequently encounter systemic bottlenecks, including fragmented institutional support, prohibitive teaching and administrative workloads that preclude professional development, and a lack of structured, high-quality digital training. Furthermore, the exponential rise of generative AI tools has introduced acute cognitive and professional anxieties, particularly concerning the preservation of academic integrity, the design of equitable assessment frameworks, and the ethical parameters of AI-augmented instruction.

While international literature extensively documents the theoretical and empirical benefits of lifelong learning for educators, localized research focusing specifically on the Vietnamese higher education landscape remains fragmented. Existing studies often fail to provide a holistic, integrated examination of how digital transformation, shifting macroeconomic policies,

and institutional support structures interact to influence faculty development.

This study directly addresses this critical research gap. By conducting a rigorous analysis of the theoretical underpinnings and empirical barriers to lifelong learning among Vietnamese university lecturers amidst digital upheaval, this paper contributes a contextualized understanding to the broader discourse on faculty development. Ultimately, this study proposes a comprehensive, actionable strategic framework designed to enhance instructional quality, stimulate pedagogical innovation, and ensure the long-term sustainability and competitiveness of Vietnam's higher education sector in the digital era.

2. Theoretical and Empirical Foundations

2.1 Concept of Lifelong Learning

Lifelong learning is widely recognized as a foundational principle of modern education systems and a key driver of sustainable human development in knowledge-based economies. It refers to a continuous, self-directed process through which individuals acquire, update, and expand knowledge, skills, and competencies throughout their lifespan, encompassing formal, non-formal, and informal learning contexts (OECD, 2019). In rapidly evolving labor markets, lifelong learning enhances adaptability, employability, and active participation in socio-economic development.

At the global level, lifelong learning has been strongly promoted by UNESCO as a guiding framework for building inclusive learning societies. The seminal report *Learning: The Treasure Within* (Delors et al., 1996) introduced four pillars of education—learning to know, learning to do, learning to live together, and learning to be—which collectively emphasize a holistic approach to human development. This perspective is further reinforced in the UNESCO (2016) *Recommendation on Adult Learning and Education*, which conceptualizes lifelong learning as a continuous and integrated process essential for personal fulfillment, social cohesion, and economic development.

In higher education, lifelong learning has become increasingly critical for academic professionals, particularly university lecturers. The rapid advancement of science, digital technologies, and globalization requires continuous updating of disciplinary knowledge, pedagogical competence, and research capacity (Littlejohn, 2023; OECD, 2019). Moreover, emerging technologies such as artificial intelligence and data-driven educational tools are reshaping teaching practices, requiring lecturers to develop digital pedagogical competence and adaptive expertise (UNESCO, 2024).

Within Vietnam, lifelong learning is closely linked to ongoing higher education reforms and digital transformation strategies. Studies by Dang and Glewwe (2018) indicate that improving education quality and workforce competitiveness requires continuous professional development among educators. Additionally, research by Le and Hayden (2017) highlights that Vietnam's higher education system is undergoing structural transformation, necessitating enhanced academic capacity and lifelong learning engagement among lecturers.

The rise of Generation Z learners—characterized by digital fluency and expectations for interactive, personalized learning—further intensifies the need for pedagogical adaptation (Tran, 2013). Consequently, lifelong learning should be understood not only as an individual responsibility but also as a systemic and institutional imperative, requiring supportive academic environments that foster continuous professional growth and innovation.

2.2 Lifelong Learning in Higher Education

University lecturers play a pivotal role in shaping the quality, relevance, and sustainability of higher education systems. Their responsibilities extend beyond knowledge transmission to include curriculum design, research production, academic mentoring, and community engagement (Hargreaves & Fullan, 2012). In contemporary academia, lecturers function as intellectual leaders and facilitators of learning, contributing to students' critical thinking and holistic development.

The digital transformation of higher education has significantly altered the professional role of lecturers. The proliferation of digital learning environments, learning management systems, and data-driven technologies has shifted pedagogical paradigms from teacher-centered instruction to learner-centered, technology-enhanced learning models (Littlejohn, 2023). This transition requires lecturers to develop competencies in instructional design, digital integration, and collaborative learning facilitation.

Within this context, lifelong learning becomes a core dimension of academic professionalism. Continuous professional development supports lecturers in updating disciplinary knowledge, refining pedagogical strategies, and integrating innovative teaching approaches (OECD, 2019). Empirical evidence suggests that educators who actively engage in lifelong learning demonstrate higher levels of teaching effectiveness, innovation, and adaptability (Laal & Salamati, 2012)).

From a policy perspective, the UNESCO Institute for Lifelong Learning emphasizes the role of universities in fostering lifelong learning societies through research, innovation, and professional development. In Vietnam, reforms in higher education governance and institutional autonomy (London, 2011; Le & Hayden, 2017; Yuanhai et al., 2024) further require lecturers to continuously enhance competencies in digital pedagogy, interdisciplinary research, and global academic engagement.

Moreover, the concept of reflective practice proposed by Schön (1983) provides a theoretical foundation for lifelong learning among lecturers. Through reflective inquiry, educators continuously evaluate and improve their teaching practices, thereby supporting professional growth and pedagogical innovation.

2.3 Challenges for University Lecturers in the Digital Era

Despite its recognized importance, lifelong learning among university lecturers faces multiple challenges, particularly in the context of rapid digital transformation.

One major challenge is the accelerating pace of technological change. Emerging technologies—including artificial intelligence, virtual reality, and learning analytics—are reshaping higher education and require lecturers to develop both technical and pedagogical competencies (UNESCO, 2024). The transition toward Education 5.0 further emphasizes personalized, technology-driven learning environments, increasing the complexity of teaching practices.

Another challenge involves the transformation of pedagogical roles. Lecturers are no longer merely knowledge transmitters but are expected to act as facilitators, mentors, and designers of learning experiences (Hargreaves & Fullan, 2012; Laal & Salamati, 2012). This shift requires continuous professional learning and the development of new competencies in student-centered and inquiry-based pedagogy (OECD, 2019).

The emergence of generative AI technologies introduces additional challenges related to academic integrity, assessment validity, and the authenticity of student learning. Reports by UNESCO (2024) highlight the need for educators to redesign assessment strategies toward authentic, competency-based evaluation and higher-order thinking skills.

Furthermore, increasing workload pressures pose a significant barrier to lifelong learning. Lecturers are required to balance teaching, research, administrative duties, and digital course development, limiting the time available for professional development (Tran, 2013; Le & Hayden, 2017).

In Vietnam, these challenges are compounded by structural constraints such as uneven technological infrastructure, disparities in digital competence, and limited access to professional development opportunities (Le & Hayden, 2017). Additionally, the rapid expansion of higher education has intensified teaching workloads, further constraining opportunities for sustained lifelong learning (Tran, 2013).

Addressing these challenges requires a systemic approach that integrates individual, institutional, and policy-level interventions. Universities must establish supportive professional learning

ecosystems, promote digital competence development, and foster collaborative academic cultures. Such systemic support is essential for enabling lecturers to sustain lifelong learning and effectively respond to the evolving demands of higher education in the digital era.

3. Effective Strategies for Lifelong Learning of University Lecturers in the Digital Era

Promoting lifelong learning among university lecturers requires a comprehensive and systemic approach that integrates institutional support, professional development opportunities, technological infrastructure, and individual motivation for continuous learning. In the context of the digital transformation of higher education, lifelong learning should be viewed not only as an individual responsibility of lecturers but also as a strategic priority for universities seeking to enhance educational quality and academic innovation.

Within Vietnamese higher education, recent reforms emphasizing digital transformation, international integration, and quality assurance have created new expectations for academic staff. Consequently, universities must establish supportive environments that enable lecturers to continuously update their knowledge, develop digital competencies, and engage in innovative teaching and research practices. The following strategic solutions highlight key mechanisms for promoting lifelong learning among university lecturers in the digital era.

3.1 Institutional Policy Support

Institutional policy plays a crucial role in fostering a culture of lifelong learning within universities. Without supportive institutional frameworks, individual efforts toward professional development may remain fragmented and unsustainable. Therefore, universities should develop comprehensive policies that actively encourage and facilitate continuous learning among academic staff.

Such policies may include the establishment of structured professional development programs, recognition systems for teaching innovation, and financial support for academic training and

research activities. Incentive mechanisms—such as promotion criteria linked to professional development achievements—can also motivate lecturers to engage more actively in lifelong learning.

International experience suggests that universities that prioritize faculty development tend to demonstrate higher levels of teaching innovation and institutional competitiveness (OECD, 2019). In Vietnam, strengthening institutional policies for professional learning is particularly important as universities continue to adapt to digital transformation and global academic integration. By embedding lifelong learning into institutional governance and quality assurance systems, universities can create sustainable professional learning ecosystems for lecturers.

3.2 Development of Digital Competence

In the digital era, digital pedagogical competence has become an essential professional capability for university lecturers. Beyond basic technological literacy, digital competence involves the ability to design technology-enhanced learning environments, integrate digital tools into instructional strategies, and facilitate meaningful student engagement in online and blended learning contexts.

Universities should therefore provide systematic training programs that support lecturers in developing digital pedagogical skills. These programs may focus on areas such as online teaching methodologies, digital content creation, learning management systems, and the use of data analytics to support student learning.

The European Commission's Digital Competence Framework for Educators emphasizes that educators must develop competencies in digital teaching design, assessment, and collaborative learning facilitation. In the context of Vietnamese higher education, developing digital competence among lecturers is particularly important as universities increasingly adopt blended learning models and digital learning platforms.

Importantly, digital competence development should follow a human-centered approach that prioritizes meaningful learning experiences rather than technology use for its own sake. Lecturers must critically evaluate digital tools and select technologies that genuinely enhance learning outcomes and student engagement.

3.3 Expanding Access to Open Educational Resources and Knowledge Ecosystems

Access to high-quality knowledge resources is a fundamental condition for sustaining lifelong learning among university lecturers. Universities should therefore expand access to digital libraries, international academic databases, and open educational resources (OER) that enable lecturers to remain informed about the latest developments in their fields.

Open educational resources play a particularly important role in democratizing knowledge and supporting continuous professional learning. According to UNESCO (2019), OER contribute to improving the accessibility and quality of education by allowing educators to freely access, adapt, and share educational materials. Through OER platforms, lecturers can collaborate with international scholars, exchange teaching materials, and continuously update their instructional content.

In Vietnam, expanding access to global knowledge ecosystems is essential for strengthening research capacity and improving the international visibility of universities. Institutional investment in digital knowledge infrastructure—such as access to Scopus-indexed databases, research repositories, and academic collaboration platforms—can significantly enhance lecturers' opportunities for professional learning and research development.

3.4 Participation in Global Academic Communities

Academic networking and scholarly collaboration represent another critical pathway for lifelong learning among university lecturers. Participation in global academic communities enables lecturers to exchange ideas, engage in

interdisciplinary research, and gain exposure to innovative teaching practices.

Digital academic platforms such as ResearchGate, Google Scholar, and professional networking systems facilitate international knowledge exchange and collaborative research. In addition, participation in international conferences, academic workshops, and professional learning communities allows lecturers to remain connected with emerging trends in their fields.

Research on academic professional development suggests that collaborative learning communities significantly enhance educators' reflective practice and pedagogical innovation (Littlejohn & Margaryan, 2014). For Vietnamese lecturers, engagement with international academic networks can also strengthen research capacity, increase publication opportunities, and support the global integration of Vietnamese higher education.

3.5 Human-Centered Integration of Artificial Intelligence in Teaching and Research

Artificial intelligence (AI) is rapidly transforming educational environments and creating new opportunities for teaching, research, and academic innovation. AI-powered tools can support instructional design, generate interactive learning materials, provide automated feedback, and analyze student learning data to improve instructional decision-making.

However, the integration of AI into higher education must be guided by ethical principles and human-centered educational values. The UNESCO AI Competency Framework for Teachers emphasizes that educators should develop the ability to use AI responsibly while maintaining human agency, academic integrity, and pedagogical autonomy (UNESCO, 2024).

For university lecturers, AI should be viewed as a supportive tool rather than a substitute for human intellectual engagement. Effective use of AI requires lecturers to cultivate critical thinking, ethical awareness, and reflective pedagogical judgment. By integrating AI into teaching practices in thoughtful and responsible ways,

lecturers can enhance learning experiences while preserving the essential human dimensions of education.

In the context of Vietnamese higher education, developing AI literacy among lecturers is becoming increasingly important as universities explore new models of digital learning and educational innovation. Training programs that support responsible AI use in teaching and

research can help lecturers harness the benefits of emerging technologies while safeguarding academic integrity and educational quality. Figure 1 below illustrates the proposed systemic strategic framework, delineating the interconnections between enabling foundations, key integration strategies, and the resultant professional development outcomes for university lecturers in the digital era.

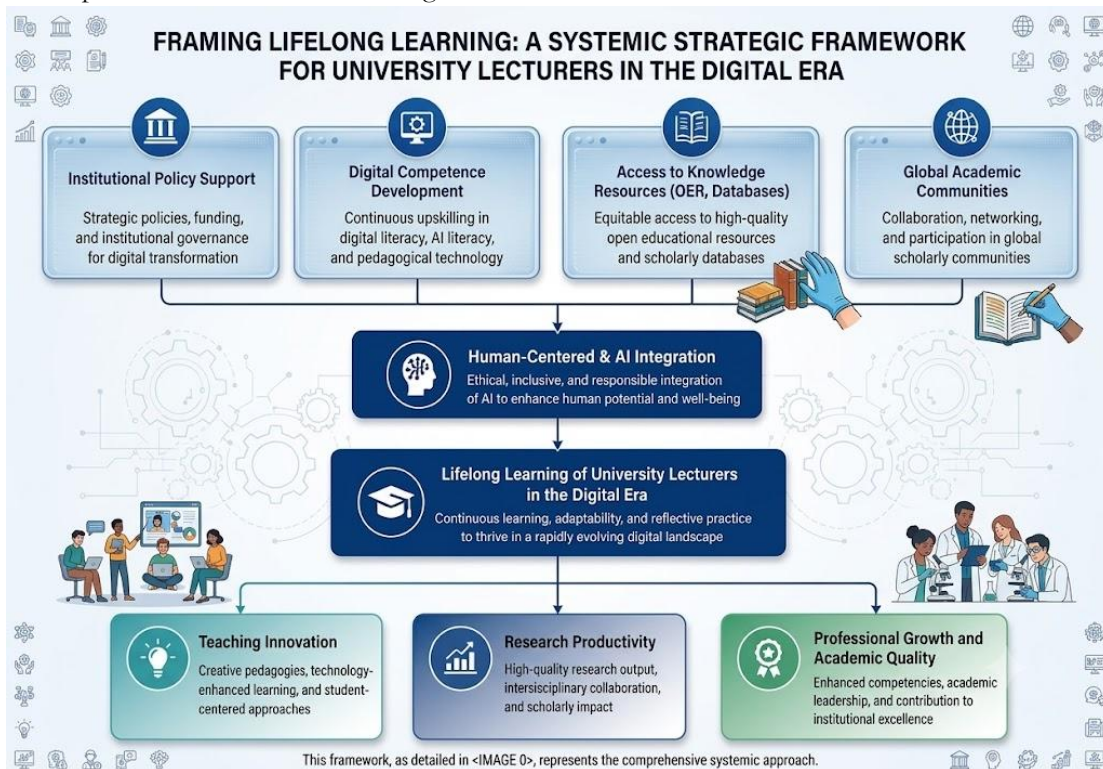


Figure 1. A systemic strategic framework for fostering lifelong learning and digital competencies among university lecturers in the digital era

4. Discussion

The findings of this study reinforce the growing consensus in educational research that lifelong learning has become an essential professional requirement for university lecturers in the digital era. In contemporary higher education systems characterized by rapid technological advancement and knowledge expansion, academic professionals can no longer rely solely on knowledge acquired during their initial training. Instead, they must continuously update their expertise, refine their pedagogical approaches, and adapt to evolving educational environments.

From a theoretical perspective, these findings align with the broader framework of lifelong learning promoted by international organizations and educational scholars. UNESCO has emphasized that lifelong learning is a fundamental principle for building knowledge societies, enabling individuals to adapt to rapid social and technological transformations while supporting sustainable development (UNESCO, 1996). Within higher education institutions, lecturers play a central role in this process because they are responsible not only for transmitting knowledge but also for cultivating students' critical thinking, creativity, and lifelong learning competencies.

In the context of Vietnamese higher education, the importance of lifelong learning among lecturers has become increasingly evident as universities undergo digital transformation and educational reform. Vietnam's higher education system has expanded significantly over the past two decades, accompanied by growing expectations regarding teaching quality, research productivity, and international academic integration. As a result, lecturers are required to develop new competencies related to digital pedagogy, interdisciplinary research, and global academic collaboration. Continuous professional learning therefore becomes a crucial mechanism for enabling lecturers to respond effectively to these evolving demands.

The findings also highlight that lifelong learning contributes not only to individual professional development but also to broader institutional innovation. Lecturers who actively engage in continuous learning tend to demonstrate greater openness to pedagogical experimentation, more effective integration of digital technologies into teaching, and stronger engagement in scholarly research. Research in higher education has consistently shown that faculty members who participate in ongoing professional development are more likely to adopt innovative teaching practices and improve student learning outcomes (OECD, 2019). In this sense, lifelong learning functions as a catalyst for educational innovation and quality enhancement within universities.

From a human-centered educational perspective, lifelong learning among lecturers should not be viewed merely as a technical process of acquiring new skills but as an ongoing process of intellectual growth and reflective practice. Educational theorists such as Schön (1983) emphasize that professional expertise develops through reflective engagement with practice, where educators continuously examine their teaching experiences, evaluate student learning outcomes, and refine their pedagogical strategies. For university lecturers, this reflective dimension of lifelong learning is particularly important because it supports the development of adaptive expertise in complex and rapidly changing educational environments.

Nevertheless, the findings of this study also indicate that promoting lifelong learning among university lecturers requires strong systemic support from higher education institutions. Without appropriate institutional policies, professional development opportunities, and access to academic resources, lecturers may struggle to sustain continuous professional learning. In many universities, heavy teaching loads, administrative responsibilities, and limited access to digital training programs can restrict lecturers' ability to engage in meaningful lifelong learning activities.

Within the Vietnamese higher education context, these challenges are further compounded by disparities in institutional resources and technological infrastructure. Some universities have successfully implemented digital learning platforms and professional development initiatives, while others continue to face limitations in technological capacity and funding for academic development. Addressing these disparities is therefore essential for ensuring equitable opportunities for lecturers to develop lifelong learning competencies.

Furthermore, fostering a sustainable culture of lifelong learning requires institutional environments that encourage collaboration, knowledge sharing, and academic inquiry. Universities should establish professional learning communities, support interdisciplinary research networks, and promote collaborative teaching innovation among faculty members. Such initiatives can create dynamic intellectual environments in which lecturers learn from one another and collectively develop new pedagogical practices.

Ultimately, the promotion of lifelong learning among university lecturers should be understood as a strategic investment in the long-term development of higher education. By supporting lecturers' continuous professional growth, universities can strengthen teaching quality, enhance research capacity, and foster educational innovation. In the context of the digital knowledge economy, these outcomes are essential for enabling higher education

institutions in Vietnam to remain competitive and responsive to the evolving demands of global education.

5. Conclusion and Implications

Conclusion

In the contemporary landscape of accelerated digital transformation and the expansion of the global knowledge economy, lifelong learning (LLL) has transcended its conventional classification as an optional professional attribute, emerging instead as a structural imperative for university faculty members. Continuous professional development plays a decisive role in empowering educators to continuously update their disciplinary knowledge, cultivate advanced digital pedagogical fluencies, and respond effectively to the increasingly volatile and complex demands of the tertiary education sector. The empirical and conceptual configurations synthesized in this study provide robust evidence that faculty members who actively engage in LLL demonstrate significantly higher levels of instructional adaptability, digital efficacy, and research productivity. Notably, the analysis indicates that sustained participation in structured professional development initiatives and collaborative academic networks correlates positively with an enhanced capacity for pedagogical innovation and the execution of student-centered, technology-enhanced teaching methodologies. Conversely, the study exposes a persistent, critical systemic gap between idealized institutional expectations and the actual support mechanisms made available to faculty members, particularly concerning long-term digital training infrastructure and equitable workload allocation frameworks.

Implications

To effectively bridge these empirical fissures and catalyze a sustainable culture of continuous professional growth within the higher education ecosystem, three strategic vectors must be prioritized.

First: Institutional Paradigm Shift

Promoting lifelong learning among university lecturers must be operationalized as a systemic,

strategic priority rather than a series of fragmented, ad-hoc initiatives. It is imperative that higher education institutions (HEIs) transition beyond superficial policy declarations to establish coherent, institutionalized ecosystems. This requires the structural integration of continuous professional development, comprehensive digital infrastructure, and cross-institutional academic collaboration into the core of everyday institutional practice. Furthermore, universities must implement equitable workload reallocations to provide faculty with the requisite cognitive and temporal space to engage in meaningful scholarly reflection and pedagogical upskilling.

Second: Individual Agency and Identity Reconstruction

Equally critical is the activation of individual agency among faculty members. In an era dominated by rapid technological obsolescence and the emergence of generative artificial intelligence, lecturers must actively reposition themselves as self-regulated, autonomous learners. This involves a continuous, reflexive reconstruction of their professional identities, moving away from the traditional role of static knowledge transmitters toward dynamic, adaptive facilitators of learning. Faculty members must cultivate the capacity for proactive digital literacy acquisition, ensuring they remain resilient and pedagogically relevant amidst shifting student demographics and evolving socio-cognitive preferences.

Finally: Context-Sensitive Reforms in Vietnam and Future Research Trajectories

Within the specific context of Vietnamese higher education, fostering a deeply institutionalized culture of lifelong learning constitutes a critical lever for elevating instructional quality, expanding empirical research capacity, and accelerating macroeconomic institutional transformation. Absent a thoroughly internalized commitment to continuous learning at both the macro-institutional and micro-individual levels, state-mandated directives toward digital transformation and international integration risk

remaining superficial, performative, and unsustainable.

Looking forward, future research must depart from localized qualitative accounts and adopt more rigorous empirical designs, including large-scale quantitative studies and mixed-method longitudinal frameworks. Such endeavors are essential to systematically map the multidimensional socio-structural, technological,

and psychological factors that influence faculty engagement in LLL across diverse institutional archetypes. Ultimately, this subsequent body of research is vital not only for generating robust, generalizable data but also for informing the formulation of targeted, context-sensitive national policies that can genuinely support academic staff in navigating the shifting paradigms of the digital era.

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