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# Leadership for Human–AI Collaboration in Management Education: Developing the LHAC Framework

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**ABSTRACT**

**Introduction**: Artificial Intelligence (AI) is becoming an essential part of Management Information Systems (MIS) in higher education. Its integration has changed how institutions manage teaching, research, and administration. Yet, the real challenge is not the technology itself but how leaders guide people and systems to work together effectively.

**Objectives**: This paper aims to develop a conceptual framework that explains leadership strategies for managing Human–AI collaboration in management education.

**Methods**: The discussion draws on ideas from Transformational Leadership Theory, Socio-Technical Systems Theory, and Change Management literature. Through conceptual synthesis, these perspectives are combined to form the Leadership for Human–AI Collaboration (LHAC) Framework.

**Results**: The LHAC Framework provides a starting point for understanding how leaders in higher education can manage Human–AI collaboration more strategically. It emphasizes that strong leadership is not only about technology adoption but also about sustaining trust, creativity, and shared purpose across the institution.

**Conclusions**: This study presents the Leadership for Human–AI Collaboration (LHAC) Framework, highlighting three interconnected leadership dimensions—Strategic Digital Vision, Ethical and Collaborative Governance, and Continuous Learning and Adaptation—that enable effective Human–AI collaboration in higher education Management Information Systems (MIS). The framework demonstrates that leadership, rather than technology alone, is the key to fostering innovation, trust, and sustainable digital transformation. By guiding institutions to align AI adoption with organizational purpose, ensure ethical practices, and cultivate ongoing learning, the LHAC Framework offers both a conceptual foundation and practical guidance for responsible, human-centered AI integration in management education.

**Keywords:** Human–AI Collaboration; Leadership Strategies; Management Information Systems; Digital Transformation; Higher Education; Conceptual Framework.

## INTRODUCTION

The digital transformation of higher education is moving faster than ever before (Bygstad et al., 2022; Antonopoulou et al., 2023; Deroncele-Acosta et al., 2023) Universities around the world are integrating Artificial Intelligence (AI) into their Management Information Systems (MIS) to improve efficiency, decision-making, and innovation (Andersen et al., 2022; Celik et al., 2022; Wang et al., 2024). AI-powered systems now support activities ranging from academic administration and research analytics to student advising and online learning environments (Khawla Albinali et al., 2024; Sri Rahardjo et al., 2024; Pham Bich Thuy, Pham Dao Tien, 2025). In management education, these tools are particularly useful in analyzing complex data, personalizing learning, and streamlining administrative processes. However, the success of these initiatives does not depend only on the technology itself. It relies on how institutions manage the interaction between people and AI systems—what is increasingly referred to as Human–AI collaboration (Akinnagbe, 2024). When managed effectively, this collaboration enhances creativity, improves

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efficiency, and drives teaching innovation (S, 2025). When managed poorly, it may lead to resistance, ethical concerns, and a loss of trust among faculty and students.

Leadership is central to this process. The introduction of AI into MIS changes the nature of work and decision-making, requiring leaders to adapt their strategies and competencies. As institutions adopt AI, leaders must address questions of trust, transparency, accountability, and fairness (Westover, 2025; Dican, 2025). They must ensure that technology complements, rather than replaces, human judgment and creativity (Daly et al., 2025; (Cui & Yasseri, 2024). In this case, effective leadership becomes the key factor that determines whether Human–AI collaboration becomes a tool for empowerment or a source of disruption.

This paper draws on three theoretical foundations to explain how leadership can guide and manage this transformation. First, Transformational Leadership Theory (Bass, 1985; J Bruce Avolio & M Bernard Bass, 2004) highlights the leader's role in articulating a clear vision, motivating others, and inspiring innovation. Transformational leaders are able to create meaning around technological change and build a shared sense of purpose. Second, Socio-Technical Systems Theory (Mumford, 2006) emphasizes that technology and people must evolve together. In the case of Human–AI collaboration, this theory suggests that leaders must balance technical efficiency with social well-being. Third, Change Management Theory (Kotter, 1996; Lewin, 1951) provides practical guidance on how leaders can structure the transition toward AI adoption—through communication, participation, and reinforcement.

Despite the growing interest in AI and digital transformation, there is still limited conceptual work that connects leadership behavior directly to Human–AI collaboration within MIS environments in higher education. Most research focuses on either the technical aspects of AI or general leadership in digital contexts, without fully integrating both. This gap creates a need for a comprehensive framework that explains how leaders can manage Human–AI collaboration strategically and ethically. To address this gap, this paper proposes the Leadership for Human–AI Collaboration (LHAC) Framework, a conceptual model that integrates leadership theory, information systems management, and change processes. The framework highlights three key leadership domains—strategic digital vision, ethical and collaborative governance, and continuous learning culture—as critical enablers for successful Human–AI collaboration in management education. By grounding the discussion in these theories, this paper contributes to the growing conversation about digital leadership and offers new insights for universities navigating the intersection of human and artificial intelligence.

## OBJECTIVES

This paper aims to conceptualize leadership strategies that enable effective Human–AI collaboration within Management Information Systems (MIS) in management education institutions. Specifically, it seeks to:

1. Identify key leadership dimensions essential for managing Human–AI collaboration.
2. Integrate leadership and information systems theories into a unified conceptual framework.
3. Propose the Leadership for Human–AI Collaboration (LHAC) Framework to guide digital transformation in higher education

## METHODS

This study employed a conceptual synthesis method to develop the Leadership for Human–AI Collaboration (LHAC) Framework. The approach emphasizes the integration of multiple theoretical perspectives and prior research findings to construct a new conceptual model relevant to managing Human–AI collaboration in Management Information Systems (MIS) within higher education institutions.

1. Research Design

The conceptual synthesis process consisted of three systematic phases (as seen in Figure 1):

- Phase 1: Theoretical Mapping – Identification of foundational theories related to leadership and technology management.
- Phase 2: Thematic Integration – Extraction of key concepts and constructs from each theory that are relevant to Human–AI collaboration.

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- Phase 3: Framework Development – Organization of synthesized insights into a structured framework that explains leadership strategies for digital transformation in education.

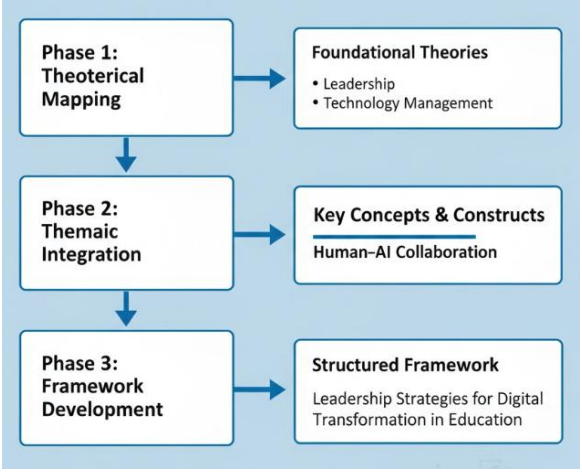


Figure 1. Three-Phase Research Design for Conceptual Synthesis

2. Theoretical Foundations

The conceptualization process was guided by three main theories that have strong relevance to digital transformation and leadership, listed in Table 1.

Table 1. Theoritical Foundations

| Theory | Key Concepts | Relevance to Human–AI Collaboration in MIS | Operational Indicators |
|---|---|---|---|
| Transformational Leadership Theory (Bass, 1985; Avolio & Bass, 2004) | Visionary leadership, motivation, intellectual stimulation, individualized consideration | Guides how leaders inspire trust, communicate a shared vision, and motivate staff | Staff engagement, alignment of AI initiatives with institutional goals |
| Socio-Technical Systems Theory (Mumford, 2006) | Integration of social and technical subsystems, human-centered design | Balances human judgment and AI automation | Faculty/student trust, participatory decision-making, ethical compliance |
| Change Management Theory (Lewin, 1951; Kotter, 1996) | Unfreeze–Change–Refreeze model, communication, participation | Guides transitions and organizational learning during AI adoption | Training participation, feedback loops, number of pilot AI initiatives |

3. Conceptual Integration Procedure

A literature-driven synthesis was performed by reviewing journal articles, conference papers, and books from Scopus and Web of Science databases published between 2015 and 2024. Search keywords included "AI adoption in higher education," "digital leadership," "management information systems," and "Human–AI collaboration." Each selected source was reviewed for recurring patterns related to leadership roles, adoption challenges, and innovation outcomes. The extracted ideas were coded into thematic categories such as "vision and strategy," "ethics and trust," and "organizational learning." The categories were then cross-analyzed to identify conceptual linkages between leadership behavior, organizational readiness, and successful AI integration. These linkages formed the foundation for constructing the Leadership for Human–AI Collaboration (LHAC) Framework.

4. Validation and Rigor

To ensure the conceptual model's credibility, three validation strategies were applied:

- Theoretical Triangulation: Comparing insights across multiple theories to ensure coherence and avoid bias toward a single theoretical view.

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- Peer Consultation: Informal feedback was gathered from academic peers at President University who specialize in digital leadership and educational management.
- Conceptual Saturation: The synthesis process continued until no new major concepts emerged from additional literature sources, ensuring completeness of coverage.

5. Outcome of the Method

The outcome of the conceptual synthesis is the Leadership for Human–AI Collaboration (LHAC) Framework, which integrates the reviewed theories into a structured model linking:

- Leadership dimensions (vision, ethics, learning culture),
- Organizational readiness and human engagement, and
- Innovation and performance outcomes.

## RESULTS

The results of this conceptual synthesis follow the three methodological phases described earlier: theoretical mapping, thematic integration, and framework construction. Each phase contributed to shaping the Leadership for Human–AI Collaboration (LHAC) Framework, which explains how leadership can effectively manage Human–AI collaboration within Management Information Systems (MIS) in higher education. The first phase aimed to identify the theoretical foundations most relevant to understanding leadership in Human–AI collaboration within Management Information Systems (MIS). To achieve this, an exploratory mapping of literature was carried out between May and July 2025 using Scopus, Web of Science, and Google Scholar databases. The search combined keywords such as “AI adoption,” “digital leadership,” “management information systems,” and “higher education.” More than 80 peer-reviewed articles and classic theoretical works were initially screened. Each source was reviewed for two criteria:

- Whether the theory explicitly addressed leadership behavior or organizational transformation, and
- Whether it offered explanatory value for socio-technical interactions between people and technology.

After a two-round filtering process, three theoretical perspectives were selected because they collectively addressed the motivational, structural, and adaptive aspects of leadership needed for Human–AI collaboration. The theoretical mapping results listed in Table 2.

Table 2. Theoretical Mapping Results

| Theory | Key Authors | Central Premise | Relevance to Human–AI Collaboration |
|---|---|---|---|
| Transformational Leadership Theory | Bass (1985); Avolio & Bass (2004) | Leadership effectiveness stems from a clear vision, intellectual stimulation, and individualized support. | Guides how leaders can inspire trust, communicate a shared digital vision, and motivate staff to engage positively with AI-driven MIS. |
| Socio-Technical Systems Theory | Trist & Bamforth (1951); Mumford (2006) | Organizations operate as systems where human and technical elements must be jointly optimized. | Explains how leaders can balance human judgment and AI automation, ensuring that MIS design serves both efficiency and employee well-being. |
| Change Management Theory | Lewin (1951); Kotter (1996) | Organizational change succeeds when leaders plan structured transitions, communicate effectively, and reinforce new behaviors. | Offers guidance for leading digital transformation, reducing resistance, and embedding continuous learning during AI adoption. |

The mapping process followed a reasoning-by-integration approach.

- First, Transformational Leadership Theory provided the motivational foundation, showing that visionary and inspirational behaviors are essential when introducing disruptive technologies.
- Second, Socio-Technical Systems Theory offered the structural foundation, reminding that technology initiatives must remain human-centered to succeed.

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- Third, Change Management Theory supplied the procedural foundation, emphasizing that adoption requires deliberate stages, communication, and reinforcement

The second phase focused on synthesizing key themes and constructs derived from the theoretical mapping in Phase 1. The purpose was to integrate the motivational, structural, and procedural insights from the selected theories into coherent leadership dimensions that could explain how Human–AI collaboration is effectively managed within MIS environments. The outcome of this phase is the identification of three interrelated leadership dimensions, which serve as the pillars of the Leadership for Human–AI Collaboration (LHAC) Framework, listed in Table 3.

Table 3. Key Leadership Behaviors

| Leadership Dimension | Derived Theoretical Basis | Key Leadership Behaviors | Purpose in Human–AI Collaboration |
|---|---|---|---|
| Strategic Digital Vision | Transformational Leadership Theory | Articulating a shared digital vision, aligning AI initiatives with institutional goals, motivating staff through inspiration and clarity. | Establishes direction and collective purpose for integrating AI into MIS. |
| Ethical and Collaborative Governance | Socio-Technical Systems Theory | Promoting transparency, fairness, participative decision-making, and trust between humans and AI systems. | Ensures balanced, responsible, and inclusive Human–AI collaboration. |
| Continuous Learning and Adaptation | Change Management Theory | Encouraging experimentation, professional development, and institutional learning from AI-driven experiences. | Builds long-term readiness and sustainability for digital transformation. |

The third phase consolidated the insights from Phases 1 and 2 into a unified conceptual model called the Leadership for Human–AI Collaboration (LHAC) Framework as shown in Figure 2. This framework shown how leadership integrates human, organizational, and technological factors to manage Artificial Intelligence (AI) adoption within Management Information Systems (MIS) in higher education institutions.

The Leadership for Human–AI Collaboration (LHAC) Framework depicted the dynamic interaction between leadership behavior, organizational systems, and technological integration in higher education. It proposes that successful Human–AI collaboration through Management Information Systems (MIS) depends on how leaders establish vision, ensure ethical governance, and sustain learning. At its core, the framework recognizes leadership as the unifying force that connects human and technological subsystems within an institution. Rather than viewing AI as a replacement for human roles, the LHAC model positions leadership as the mediator that harmonizes human intelligence and machine intelligence toward shared institutional goals. The framework operates through three interrelated dimensions, each representing a stage and function within the leadership cycle:

- Strategic Digital Vision – This dimension represents the starting point of the leadership cycle. It emphasizes how leaders craft a clear digital vision that aligns AI initiatives with institutional missions. The goal is not only to introduce technology but to inspire a shared sense of purpose. Through transformational communication, leaders translate complex technological opportunities into meaningful directions that educators and staff can embrace.
- Ethical and Collaborative Governance – Once direction is set, leadership must ensure the integrity of implementation. This dimension focuses on governance structures that emphasize fairness, transparency, and inclusiveness. It draws from socio-technical thinking, which asserts that technology systems must be co-designed with their users. In this stage, leaders act as facilitators, balancing institutional needs, ethical standards, and stakeholder participation to build trust in AI systems.
- Continuous Learning and Adaptation – The final dimension represents organizational renewal. AI technologies and educational environments evolve rapidly, so leadership must foster a culture of continuous learning, experimentation, and reflection. Drawing from change management principles, this dimension emphasizes feedback loops, digital literacy development, and adaptive leadership practices. The aim is to institutionalize learning as an ongoing process rather than a one-time transformation effort.

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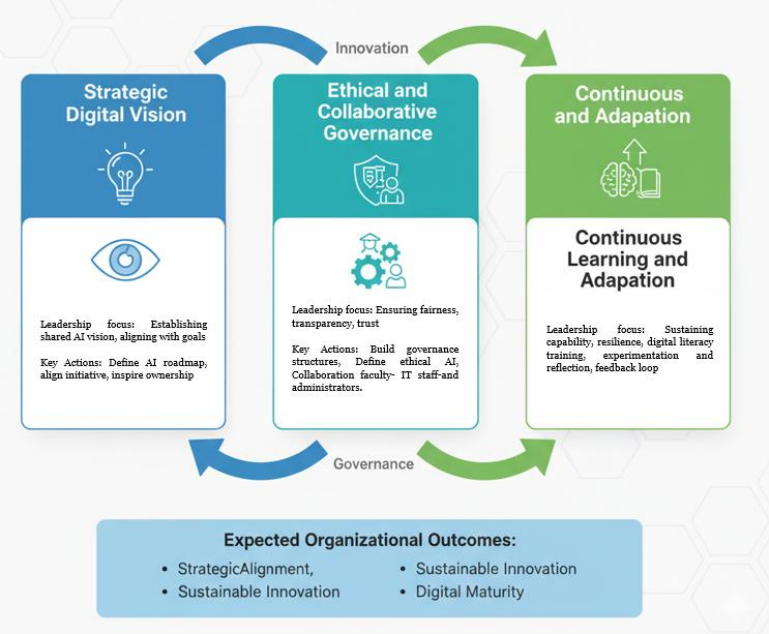


Figure 2. Leadership for Human–AI Collaboration (LHAC) Framework

The interaction among these three dimensions is cyclical rather than linear. A strategic vision inspires action, governance ensures responsible implementation, and learning reinforces both strategy and governance by providing new insights. Over time, this cycle strengthens the institution's ability to manage complexity, adapt to technological change, and innovate sustainably. After developing the Leadership for Human–AI Collaboration (LHAC) Framework, a validation process was conducted to ensure its theoretical consistency and practical relevance. Because this study is conceptual, the validation emphasized theoretical triangulation, expert consultation, and conceptual saturation.

In the first stage, theoretical triangulation confirmed that the three leadership dimensions—Strategic Digital Vision, Ethical and Collaborative Governance, and Continuous Learning and Adaptation—were consistent with core ideas from Transformational Leadership, Socio-Technical Systems, and Change Management theories. This ensured internal coherence between the proposed framework and established literature. The second stage involved expert consultation with three academic specialists from President University in the areas of digital leadership and MIS. Their feedback affirmed the framework's clarity and novelty, particularly highlighting the ethical dimension as a timely addition to the discussion on responsible AI in education as listed in Table 4. Minor refinements were made to emphasize the cyclical interaction among leadership dimensions. Finally, conceptual saturation was achieved through reviewing additional literature from 2023–2025. No new themes emerged, indicating that the LHAC Framework captures the essential leadership domains for managing Human–AI collaboration in MIS.

Table 4. Validation Strategies

| Validation Strategy | Focus | Key Outcome |
|---|---|---|
| Theoretical Triangulation | Alignment with major leadership theories. | Confirmed internal consistency and theoretical coherence. |
| Expert Consultation | Feedback from academic specialists. | Validated clarity, novelty, and practical relevance. |
| Conceptual Saturation | Review of recent literature (2023–2025). | No new constructs identified; framework deemed complete. |

Table 5 presents the operational indicators and measurement methods for each leadership dimension in the LHAC Framework. These indicators are designed to make the conceptual framework practically measurable and allow universities to assess leadership effectiveness in Human–AI collaboration.

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Table 5. Operational Indicators and Measurement Methods

| Leadership Dimension | Operational Indicator | Measurement Method |
|---|---|---|
| Strategic Digital Vision | Clarity of strategic communication | Staff surveys (Likert 1–5) |
| | Staff engagement | Participation rates (%) in AI initiatives |
| | Alignment with institutional objectives | Audit against strategic plans (qualitative scoring) |
| Ethical & Collaborative Governance | Faculty/student trust | Surveys (Likert 1–5) |
| | Participatory decision-making frequency | Count of meetings or consultations |
| | Compliance with ethical guidelines | Audit % compliance |
| Continuous Learning & Adaptation | Participation in AI training | Enrollment & completion rates |
| | Number of AI pilot projects | Count active pilot programs |
| | Systematic feedback loops | Count of feedback/reflection sessions |

## DISCUSSION

The findings of this study, presented through the Leadership for Human–AI Collaboration (LHAC) Framework, reveal that the success of Artificial Intelligence (AI) implementation in Management Information Systems (MIS) depends less on technical sophistication and more on the quality of leadership behind it. The framework positions leadership as the connecting force that links vision, ethics, and learning to enable meaningful Human–AI collaboration in higher education. Drawing on Transformational Leadership Theory, the first dimension—Strategic Digital Vision—highlights the importance of clear direction in digital transformation. Leaders must ensure that technology initiatives align with the university's mission and culture. For example, a university might introduce an AI-based student performance dashboard that alerts advisors when students show signs of academic risk. Instead of relying only on algorithmic predictions, leaders encourage faculty to interpret these insights collaboratively, blending human judgment with AI-generated data. This approach ensures that technology supports educators rather than replaces them. The second dimension, Ethical and Collaborative Governance, applies principles from Socio-Technical Systems Theory, emphasizing that AI systems should be implemented transparently and inclusively. A practical case is a university using an AI-assisted admissions system to assess applicants. Leadership promotes fairness by forming a multidisciplinary ethics committee—including IT experts, faculty, and students—to review algorithms, detect bias, and gather feedback. This process builds institutional trust and reinforces ethical responsibility in data-driven decision-making. The third dimension, Continuous Learning and Adaptation, grounded in Change Management Theory, focuses on developing a sustainable learning culture around AI use. Universities can create Digital Learning Labs where lecturers experiment with AI tools such as grading assistants or chatbots, followed by peer discussions to share experiences. Through this cycle of reflection and adaptation, leaders embed a culture of continuous improvement that keeps the institution responsive to technological change.

## CONCLUSION

This study set out to explore how leadership shapes the effective integration of Artificial Intelligence (AI) within Management Information Systems (MIS) in higher education. The result is the Leadership for Human–AI Collaboration (LHAC) Framework, which highlights three interdependent leadership dimensions—Strategic Digital Vision, Ethical and Collaborative Governance, and Continuous Learning and Adaptation. Together, these dimensions explain how leadership connects human insight with technological capability to foster responsible and sustainable innovation. The framework reinforces the view that technology alone does not determine success; it is the leadership behind it that ensures alignment with institutional purpose and values. Visionary leadership gives direction to digital transformation, ethical governance maintains fairness and trust, and continuous learning allows the organization to evolve as technology advances. When combined, these elements help universities cultivate a balanced and human-centered digital ecosystem. In practice, the LHAC Framework serves as a guide for higher education leaders seeking to integrate AI responsibly—encouraging transparent governance, inclusive participation, and ongoing professional growth. From a theoretical perspective, it bridges leadership and information systems literature by linking transformational, socio-technical, and change management perspectives into a unified conceptual model. Future studies could empirically test the framework through institutional case analysis or survey research to examine how

these leadership dimensions influence collaboration quality, innovation, and digital readiness. By doing so, scholars can deepen understanding of leadership's pivotal role in steering the next phase of Human–AI partnership in education.

## IMPLICATION

The *Leadership for Human–AI Collaboration (LHAC) Framework* carries meaningful implications for both theory and practice in higher education. From a theoretical standpoint, it contributes to the growing discourse on digital leadership by weaving together ideas from transformational, socio-technical, and change management theories. In doing so, it positions leadership as the connecting element that harmonizes technological progress with human and organizational values. From a practical perspective, the framework serves as a guide for institutional leaders seeking to manage AI responsibly. It encourages them to establish a clear digital vision that supports academic goals, ensure transparent and ethical governance of AI systems, and cultivate an environment where continuous learning and adaptation are part of everyday practice. By following these principles, universities can develop human-centered digital ecosystems in which technology supports collaboration and innovation while preserving trust and accountability across the academic community.

## LIMITATIONS

This study has some limitations that should be noted. First, the Leadership for Human–AI Collaboration (LHAC) Framework is purely conceptual, and its effectiveness has not yet been tested in real-world higher education settings. Second, the insights and examples used to build the framework mainly come from one university, which may limit how well the findings apply to institutions with different cultures, resources, or levels of technological readiness. Third, the study focuses on leadership strategies and does not fully address other factors that can influence Human–AI collaboration, such as infrastructure, faculty skills, or student engagement. Finally, AI technologies are evolving quickly, so the recommendations outlined in the framework may need ongoing adaptation to stay relevant.

## FUTURE DIRECTIONS

Future research can build on the LHAC Framework in several ways. First, empirical studies are needed to test the framework in real higher education settings, examining how leadership practices influence Human–AI collaboration outcomes. Comparative studies across different institutions, cultures, and resource levels could reveal how context shapes effective leadership strategies. Second, longitudinal research could explore how leadership approaches evolve as AI technologies and organizational needs change over time. Third, future work could integrate additional factors such as faculty digital literacy, student engagement, or technical infrastructure to provide a more comprehensive understanding of Human–AI collaboration. Finally, developing practical tools or assessment instruments based on the framework could help university leaders monitor and enhance AI adoption while ensuring ethical and human-centered practices.

## CONFLICT OF INTEREST

The author declares that there are no financial, personal, or professional conflicts of interest that could have influenced the research, analysis, or interpretation of the findings presented in this article.

## REFERENCES

[1] Akinnagbe, O. B. (2024). Human-AI collaboration: Enhancing productivity and decision-making. *International Journal of Education Management and Technology*, *2*(3), 387–417. https://doi.org/10.58578/ijemt.v2i3.4209
[2] Andersen, R., Mørch, A. I., & Kristina Torine Litherland. (2022). Collaborative learning with block-based programming: investigating human-centered artificial intelligence in education. *Behaviour & Information Technology*, *41*(9), 1830–1847. https://doi.org/10.1080/0144929x.2022.2083981
[3] Antonopoulou, K., Begkos, C., & Zhu, Z. (2023). Staying afloat amidst extreme uncertainty: A case study of digital transformation in Higher Education. *Technological Forecasting and Social Change*, *192*(122603), 122603. https://doi.org/10.1016/j.techfore.2023.122603
[4] Bass, B. M. (1985). Leadership and Performance beyond Expectations. *The Academy of Management Review*, *12*(4).

[5] Bygstad, B., Øvrelid, E., Ludvigsen, S., & Dæhlen, M. (2022). From dual digitalization to digital learning space: Exploring the digital transformation of higher education. *Computers & Education*, *182*, 104463. https://doi.org/10.1016/j.compedu.2022.104463
[6] Celik, I., Dindar, M., Muukkonen, H., & Järvelä, S. (2022). The Promises and Challenges of Artificial Intelligence for Teachers: a Systematic Review of Research. *TechTrends*, *66*(4), 616–630. Springer. https://doi.org/10.1007/s11528-022-00715-y
[7] Cui, H., & Yasseri, T. (2024). AI-enhanced collective intelligence. *Patterns*, *5*(11), 101074. https://doi.org/10.1016/j.patter.2024.101074
[8] Daly, S. J., Hearn, G., & Papageorgiou, K. (2025). Sensemaking with AI: How trust influences Human-AI collaboration in health and creative industries. *Social Sciences & Humanities Open*, *11*, 101346. https://doi.org/10.1016/j.ssaho.2025.101346
[9] Deroncele-Acosta, A., Palacios-Núñez, M. L., & Toribio-López, A. (2023). Digital Transformation and Technological Innovation on Higher Education Post-COVID-19. *Sustainability*, *15*(3), 2466. https://doi.org/10.3390/su15032466
[10] Dican, L. (2025). Human-AI Collaboration and Its Impact on Decision-Making. *International Journal of Multidisciplinary Research and Growth Evaluation.*, *6*(2), 919–923. https://doi.org/10.54660/.ijmrge.2025.6.2.919-923
[11] J Bruce Avolio, & M Bernard Bass. (2004). *Multifactor leadership questionnaire : Manual and sample set*. Mind Garden.
[12] Khawla Albinali, Iahad, N. A., Yusof, A. F., & Abdulla, A. (2024). A Systematic Literature Review of the Artificial Intelligence Role in Transformative Academic Advising: A Study of AI Applications in Higher Education. *International Journal of Academic Research in Business and Social Sciences*, *14*(12), 1429–1443. https://doi.org/10.6007/ijarbss/v14-i12/24100
[13] Kotter, J. P. (1996). *Leading Change*. Harvard Business School Press.
[14] Lewin, K. (1951). Field Theory in Social Science: Selected Theoretical Papers. Kurt Lewin , Dorwinc Artwright. *Social Service Review*, *25*(3), 409–410. https://doi.org/10.1086/638467
[15] Mumford, E. (2006). The story of socio-technical design: reflections on its successes, failures and potential. *Information Systems Journal*, *16*(4), 317–342. https://doi.org/10.1111/j.1365-2575.2006.00221.x
[16] Pham Bich Thuy, Pham Dao Tien. (2025). Empowering Student Research with Artificial Intelligence: Transforming Education through AI Applications. *Journal of Information Systems Engineering and Management*, *10*(15s), 734–741. https://doi.org/10.52783/jisem.v10i15s.2514
[17] S, S. A. J. (2025). Human-AI Collaboration in Education Using Leveraging Deep Learning and Natural Language Processing To Enhance Personalized Learning Systems. *ICTACT Journal on Soft Computing*, *15*(4), 3695–3703. https://doi.org/10.21917/ijsc.2025.0512
[18] Sri Rahardjo, Sri Marmoah, Kundharu Saddhono, None Sarwanto, Anjar Sri Ciptorukmi Nugraheni, & Farida Nurhasanah. (2024). *Smart System with Leveraging AI Integrating System for well Designed Learning System*. 901–906. https://doi.org/10.1109/icacite60783.2024.10617214
[19] Wang, S., Wang, F., Zhu, Z., Wang, J., Tran, T., & Du, Z. (2024). Artificial intelligence in education: A systematic literature review. *Expert Systems with Applications*, *252*, 124167. https://doi.org/10.1016/j.eswa.2024.124167
[20] Westover, J. H. (2025). How to Become an Effective AI-Augmented Leader. *Human Capital Leadership Review*, *20*(4). https://doi.org/10.70175/hclreview.2020.20.4.2