

Rethinking Higher Education in the Age of Artificial Intelligence: Educating for Post-Human Organizations

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ABSTRACT

Artificial intelligence is transforming organizational structures and challenging traditional assumptions regarding work, knowledge, and human capabilities. As organizations increasingly integrate intelligent systems into their operations, higher education institutions face growing pressure to prepare graduates for post-human organizational environments characterized by human-machine collaboration and continuous technological adaptation. This paper explores the implications of artificial intelligence for higher education and examines the competencies required for successful participation in post-human organizations. The study develops a conceptual framework that integrates educational transformation with emerging theories of organizational change and technological evolution. The findings indicate that future educational models should emphasize interdisciplinary learning, adaptability, ethical reasoning, and systems thinking. The paper contributes to discussions on the future of higher education by proposing strategies for preparing graduates to navigate increasingly complex and technologically mediated organizational environments.

KEYWORDS: Educational transformation; systems thinking; interdisciplinary competencies; adaptive capacity; technological disruption; organizational ecosystems.

1. INTRODUCTION

The rapid diffusion of artificial intelligence across economic and social systems has reopened a fundamental question concerning the purpose of higher education. For much of the twentieth century, universities were expected to produce graduates equipped with specialized knowledge and professional competencies that aligned with relatively stable organizational structures. That assumption is becoming increasingly difficult to sustain. Intelligent systems are now performing analytical, communicative, and even creative tasks that were previously regarded as uniquely human. Organizations increasingly rely on algorithmic decision-making, human-machine collaboration, and data-driven forms of coordination that reshape both the nature of work and the meaning of expertise.

The implications of these transformations extend beyond technological adoption. They challenge deeply rooted assumptions regarding agency, learning, and the relationship between humans and organizational systems. Posthumanist scholars have argued that contemporary societies are entering a period in which the human can no longer be considered the sole or even the primary unit of analysis for understanding social and organizational processes (Snaza & Weaver, 2015; Herbrechter, 2018). Organization studies have similarly begun to

explore the consequences of distributed agency and the growing entanglement between human actors and technological infrastructures (De Vaujany et al., 2024; Tallberg & Huopalaainen, 2024).

Within higher education, these developments generate significant tensions. Universities remain organized around disciplinary boundaries and pedagogical models that emerged in an industrial era characterized by relatively clear distinctions between human labor and technological tools. At the same time, students are entering labor markets increasingly defined by intelligent systems, platform-based work arrangements, and continuous technological change. Chhabra et al. (2024) argue that higher education institutions are under mounting pressure to rethink their educational practices, while Jensen et al. (2025) suggest that the emergence of generative artificial intelligence has accelerated debates regarding the future of teaching, assessment, and knowledge production itself.

The question facing universities is therefore not simply how to incorporate artificial intelligence into teaching practices. A more profound challenge concerns the kinds of individuals and forms of knowledge that higher education should cultivate in environments where organizational boundaries are increasingly porous and where agency is distributed across complex socio-technical systems. Billsberry (2026) describes this transformation as a movement toward post-human leadership, while Labraña and Rodríguez Ponce (2026) point to emerging tensions between organizational learning, institutional stability, and algorithmic decision-making within universities themselves.

The growing literature on artificial intelligence in higher education reveals both optimism and concern. Some scholars emphasize opportunities associated with personalized learning, new forms of knowledge creation, and expanded access to educational resources (Luckin, 2025; Chiu, 2024). Others point to issues of inequality, governance, academic integrity, and technological exclusion (Shapiro & Lam, 2026; Vulpe et al., 2026; Ncube et al., 2026). These debates remain important, yet they often focus on immediate technological applications rather than the broader question of how higher education should respond to emerging post-human organizational realities.

This paper approaches artificial intelligence as a catalyst for educational and organizational transformation rather than as a discrete technological innovation. The central research problem concerns the extent to which existing higher education models remain adequate for preparing graduates to participate in post-human organizations characterized by human-machine collaboration and continuous adaptation.

The study is guided by three interrelated research questions:

First, how do developments in artificial intelligence and posthuman organizational theory challenge traditional assumptions regarding the purpose of higher education?

Second, what competencies are required for successful participation in post-human organizational environments?

Third, how might universities reconceptualize educational practices to prepare graduates for increasingly complex socio-technical ecosystems?

The paper adopts a conceptual and interpretive approach grounded in posthumanist scholarship and organization studies. It argues that the transition toward post-human organizations requires a reconfiguration of higher education that extends beyond digital skills and technological literacy. Future educational models will need to cultivate systems thinking, ethical judgment, interdisciplinary problem-solving, and adaptive capabilities that enable graduates to operate effectively within environments where intelligence and agency are distributed among humans and machines.

By bringing together literature from posthumanism, organization studies, and higher education research, the paper contributes to ongoing debates concerning the future of universities in the age of artificial intelligence. Rather than treating educational transformation as a response to technological disruption alone, it conceptualizes higher education as a critical institutional space in which societies negotiate the meanings of work, expertise, and human agency in increasingly post-human organizational worlds.

2. Literature Review

2.1 Artificial Intelligence and the Transformation of Organizational Ontologies

The contemporary debate surrounding artificial intelligence has gradually shifted from questions of technological capability toward more fundamental concerns regarding the nature of organizations and human participation within them. Early discussions of digital transformation generally assumed that technologies functioned as tools supporting human decision-making and organizational performance. Recent developments in machine learning, generative artificial intelligence, and autonomous systems challenge this assumption by introducing forms of agency that increasingly participate in knowledge creation, communication, and organizational coordination.

Posthumanist scholarship provides a useful lens through which these transformations can be interpreted. Rather than positioning human actors at the center of organizational life, posthumanism conceptualizes social reality as emerging from interactions among humans, technologies, material infrastructures, and non-human agents (Snaza & Weaver, 2015). Herbrechter (2018) argues that education itself is increasingly confronted with the limits of anthropocentric assumptions that define learning exclusively as a human endeavor. In a similar vein, Tallberg and Huopalainen (2024) suggest that organizational analysis must move beyond human-centered explanations and recognize the distributed and relational nature of agency in contemporary organizational environments.

This perspective carries important implications for understanding artificial intelligence in organizations. Intelligent systems increasingly influence decisions regarding recruitment, communication, knowledge management, and strategic planning. Billsberry (2026) argues that these developments are gradually producing forms of post-human leadership in which authority and decision-making become distributed across human and algorithmic actors. Such transformations do not imply the disappearance of human agency. Rather, they point toward

new organizational configurations in which humans and intelligent systems operate within increasingly interdependent relationships.

De Vaujany, Gherardi, and Silva (2024) further contend that posthuman organizational studies challenge conventional distinctions between subjects and objects, users and technologies, or leaders and followers. Organizations increasingly resemble dynamic assemblages composed of people, algorithms, digital platforms, and material infrastructures. From this perspective, artificial intelligence is not simply changing organizational processes. It is altering the ontological assumptions upon which organizational life has traditionally been understood.

The emergence of post-human organizations therefore raises questions that extend beyond technological adoption. It challenges prevailing understandings of expertise, authority, and professional identity. Future workers may increasingly need to collaborate with intelligent systems that possess analytical capacities exceeding those of individual human actors. Consequently, educational institutions face the difficult task of preparing graduates for forms of work that remain only partially visible today.

2.2 Higher Education in an Era of Intelligent Systems

Higher education institutions have historically functioned as mechanisms for the transmission of disciplinary knowledge and professional expertise. Universities developed organizational structures and curricula designed to respond to industrial and post-industrial labor markets characterized by relatively stable occupational boundaries. The acceleration of artificial intelligence challenges this model by introducing new forms of uncertainty regarding future skills and professional identities.

Chhabra et al. (2024) argue that higher educational practices require substantial reconsideration because artificial intelligence is reshaping both knowledge production and the competencies demanded by contemporary organizations. Similar observations are made by Ruano-Borbalan (2025), who describes artificial intelligence as a transformative force that requires universities to reconsider their educational missions and governance structures.

The rapid adoption of generative artificial intelligence has intensified these discussions. Jensen et al. (2025) note that debates surrounding generative AI have rapidly expanded beyond concerns about academic integrity and now encompass broader questions regarding learning, assessment, and the future role of universities. Sol et al. (2025) similarly argue that traditional assessment systems appear increasingly inadequate in environments where students can access powerful generative technologies capable of producing sophisticated academic outputs.

These developments reveal a deeper challenge. Universities are not merely being asked to incorporate new technologies into existing educational models. They are being asked to reconsider the kinds of knowledge, competencies, and dispositions that graduates require in organizational environments characterized by continuous technological adaptation.

The literature presents divergent perspectives regarding this transformation. Optimistic accounts emphasize opportunities for personalized learning, expanded access to knowledge, and more flexible educational pathways (Luckin, 2025; Chiu, 2024). More cautious perspectives highlight issues of inequality, technological exclusion, and institutional governance (Do et al., 2026; Dung et al., 2026). Shapiro and Lam (2026) further argue that artificial intelligence may exacerbate existing educational inequalities unless institutions develop governance frameworks capable of addressing issues of equity and access.

These tensions suggest that higher education is experiencing a period of conceptual uncertainty. The challenge is not simply technological adaptation but institutional redefinition.

2.3 Competencies for Post-Human Organizations

The literature increasingly suggests that traditional conceptions of employability require reconsideration. Technical expertise remains important, yet the rapid evolution of intelligent systems makes it difficult to predict which specific competencies will retain their value over time. Consequently, scholars have begun to emphasize broader capacities associated with adaptability, systems thinking, and interdisciplinary problem-solving.

Luckin (2025) argues that future education should focus on nurturing forms of human intelligence that complement rather than compete with artificial intelligence. This perspective implies that higher education should cultivate capacities such as critical reasoning, ethical judgment, creativity, and collaborative problem-solving. Similar conclusions emerge from research on organizational learning, which suggests that future professionals will increasingly need to operate across disciplinary and organizational boundaries (Labraña & Rodríguez Ponce, 2026).

Interdisciplinarity occupies a particularly important place within these discussions. Complex organizational problems increasingly require knowledge that cannot be contained within traditional disciplinary frameworks. Bărbulescu, Matei, and Latea (2026) demonstrate that interdisciplinary approaches can support more integrated forms of learning and improve students' capacity to address complex sustainability challenges. Likewise, Aboderin (2025) argues that the integration of Fourth Industrial Revolution technologies requires graduates who possess both technical literacy and broader systems-oriented capabilities.

Systems thinking also appears increasingly relevant in post-human organizational environments. Intelligent systems operate within complex ecosystems characterized by interdependencies, feedback loops, and emergent outcomes. Individuals working within such environments require the ability to understand interactions among technological, social, and institutional dimensions rather than focusing exclusively on isolated tasks or disciplinary knowledge.

Adaptive capacity constitutes another recurring theme. Organizational environments characterized by rapid technological change demand continuous learning and the ability to respond effectively to uncertainty. Kimalel (2025) highlights the growing importance of

competencies associated with digital adaptation and lifelong learning, while Vulpe et al. (2026) emphasize that technological transformation also creates risks of exclusion for individuals and communities lacking opportunities to develop relevant capabilities.

Ethical reasoning has similarly emerged as a central competence. The integration of artificial intelligence into organizational life raises questions concerning responsibility, fairness, and human dignity. Vega (2026) argues that discussions surrounding artificial intelligence increasingly involve issues of power and social responsibility that cannot be addressed solely through technical expertise. Future graduates will therefore require the capacity to engage critically with the ethical and societal implications of intelligent technologies.

2.4 Research Gap

Despite the growing literature on artificial intelligence and higher education, several important limitations remain.

First, much of the existing research examines artificial intelligence primarily as an educational technology rather than as a catalyst for broader organizational transformation. Studies frequently focus on assessment practices, learning analytics, or student experiences while paying less attention to the implications of post-human organizational environments for educational purposes and curricula.

Second, the literature on posthumanism and organization studies has only recently begun to engage with questions concerning higher education. Although posthumanist scholars have questioned anthropocentric assumptions regarding learning and organization, relatively few studies have translated these theoretical insights into conceptual models for educational transformation.

Third, existing discussions often treat future competencies as collections of individual skills rather than as capabilities emerging from interactions among humans, technologies, and organizational systems. This perspective risks underestimating the complexity of post-human organizational environments and the forms of learning required to navigate them.

The present study addresses these gaps by developing a conceptual framework that connects posthuman organizational theory with debates concerning educational transformation. It proposes that higher education should be understood not merely as a provider of technical skills but as a critical institutional space responsible for preparing individuals to participate in increasingly complex socio-technical ecosystems.

Table 1. Emerging Competencies for Participation in Post-Human Organizations

Competency Domain	Traditional Higher Education Orientation	Post-Human Organizational Requirement	Educational Implications
Knowledge	Disciplinary specialization	Interdisciplinary integration	Cross-disciplinary curricula
Problem solving	Linear analysis	Systems thinking	Complex problem-based learning
Technology	Tool utilization	Human-machine collaboration	AI literacy and socio-technical competence
Learning	Knowledge acquisition	Continuous adaptation	Lifelong learning orientation
Decision-making	Individual expertise	Distributed intelligence	Collaborative and hybrid decision processes
Ethics	Professional conduct	Algorithmic responsibility	AI ethics and governance education
Communication	Human interaction	Human-machine mediation	Digital and relational competence
Leadership	Hierarchical influence	Network coordination	Adaptive and systems leadership
Innovation	Technical improvement	Socio-technical transformation	Interdisciplinary innovation ecosystems
Employability	Occupational preparation	Organizational adaptability	Competency-based and flexible education

Source: Authors' synthesis based on Snaza and Weaver (2015), De Vaujany et al. (2024), Luckin (2025), Labraña and Rodríguez Ponce (2026), and Jensen et al. (2025).

The conceptual tensions identified in this literature review provide the basis for the theoretical framework developed in the following section. The next section proposes a conceptual model linking educational transformation, emerging competencies, and the requirements of post-human organizations.

3. Methodology

This study adopts a conceptual and interpretivist research design grounded in qualitative theory building and comparative analysis. The choice of a non-empirical methodology reflects the nature of the research problem. The transition toward post-human organizations remains an emerging phenomenon characterized by conceptual ambiguity, rapidly evolving technologies, and unresolved questions regarding the future relationship between higher education and intelligent systems. Under such conditions, conceptual abstraction is particularly appropriate because it allows the development of theoretical explanations that may later guide empirical inquiry.

The study is positioned within an interpretivist epistemological tradition that views organizations and educational institutions as socially constructed systems whose meanings evolve through interactions among human and non-human actors. This position differs from positivist approaches that seek to identify stable causal relationships through empirical regularities. Instead, the paper assumes that the emergence of artificial intelligence is altering the ontological foundations of organizational life by redistributing agency across complex socio-technical assemblages. Consequently, the analysis seeks to interpret and explain these transformations rather than to measure them quantitatively.

Methodologically, the study employs a comparative conceptual synthesis that integrates three bodies of literature. The first concerns posthumanist educational theory and its critique of anthropocentric assumptions regarding learning and knowledge production (Snaza & Weaver, 2015; Herbrechter, 2018). The second addresses organization studies and emerging perspectives on post-human organizations characterized by distributed agency and human-machine collaboration (De Vaujany et al., 2024; Tallberg & Huopainen, 2024; Billsberry, 2026). The third examines contemporary debates regarding artificial intelligence and higher education, including questions of governance, competencies, assessment, and educational transformation (Jensen et al., 2025; Luckin, 2025; Dung et al., 2026).

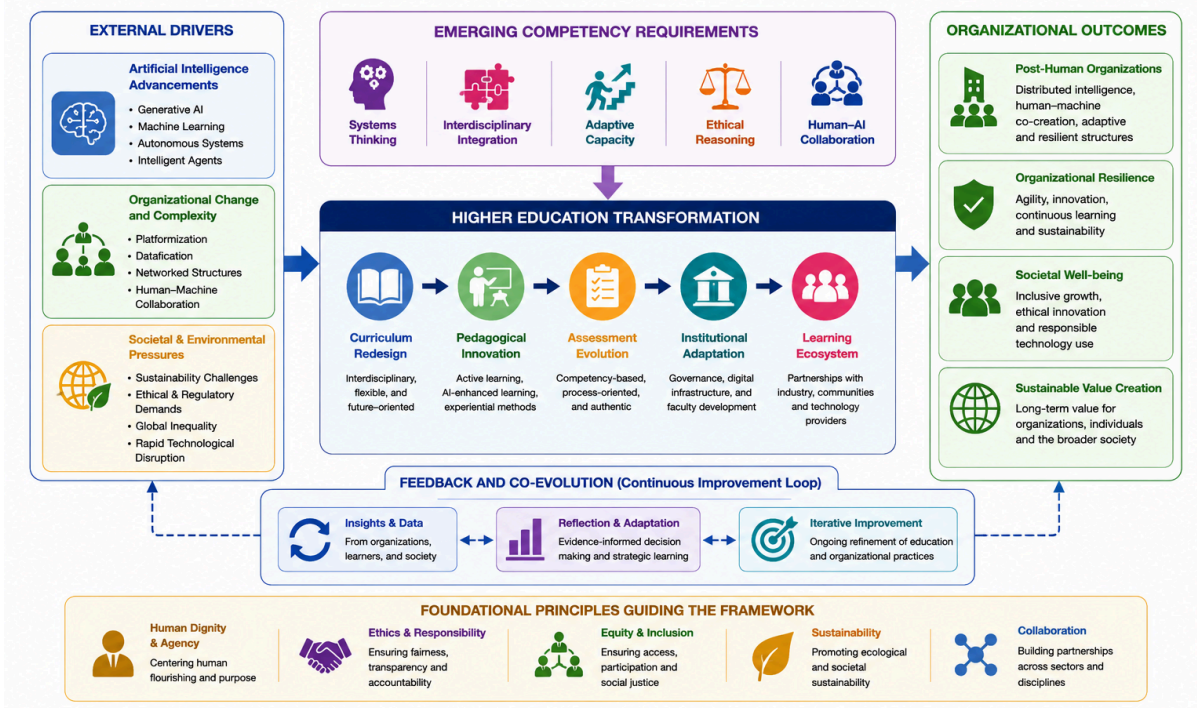
The analytical strategy follows an abductive logic of inquiry. Rather than beginning with predetermined hypotheses, the study moves iteratively between theoretical perspectives and emerging conceptual patterns identified across the literature. This process makes it possible to identify convergences and tensions among different scholarly traditions and to construct an integrative framework capable of explaining how higher education might respond to post-human organizational realities.

The conceptual analysis is organized around three interrelated analytical dimensions. The first examines changes in organizational ontologies resulting from the integration of intelligent systems into decision-making and work processes. The second identifies the competencies that appear increasingly important within post-human organizational environments. The third explores the implications of these transformations for the future purposes and institutional configurations of higher education.

To synthesize these relationships, the study develops a theoretical framework in which educational transformation is conceptualized as a function of organizational change and technological evolution. Figure 1 presents the proposed conceptual model.

Figure 1. Conceptual Framework Linking Higher Education Transformation and Post-Human Organizations

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Source: Authors' conceptualization.

The figure conceptualizes educational transformation as an adaptive response to the emergence of post-human organizations. Artificial intelligence and organizational change operate as external drivers that reshape the competencies required for participation in future workplaces. These competencies include systems thinking, interdisciplinary integration, adaptive capacity, ethical reasoning, and socio-technical collaboration. Together, they influence the redesign of educational models and contribute to the development of graduates capable of functioning within complex organizational ecosystems.

The conceptual framework may also be represented in the form of a theoretical structural model:

$$PE = \alpha + \beta_1 AI + \beta_2 OC + \beta_3 IC + \beta_4 AC + \varepsilon$$

where:

- **PE** represents post-human educational transformation;
- **AI** represents the level of artificial intelligence integration in organizational environments;
- **OC** represents organizational complexity and change;
- **IC** represents interdisciplinary competencies;
- **AC** represents adaptive capacity;
- **ε** represents contextual and institutional influences not explicitly modeled.

The constant term (α) represents the underlying institutional propensity toward educational transformation that exists independently of the specific effects of artificial intelligence integration, organizational change, interdisciplinary competencies, and adaptive capacity. It captures contextual influences such as historical institutional traditions, national educational policies, and pre-existing organizational characteristics.

The coefficients β_1 - β_4 denote the hypothesized influence of each construct on post-human educational transformation. Their inclusion serves a heuristic purpose by illustrating the proposed causal architecture of the conceptual model. No empirical estimation is performed, and the coefficients should therefore be interpreted as theoretical path parameters rather than statistical estimates. The coefficients β_1 , β_2 , β_3 , and β_4 represent the direction and theoretical strength of the relationships between the independent variables and the dependent variable.

Specifically:

- β_1 = theoretical effect of AI integration (**AI**) on post-human educational transformation (**PE**);
- β_2 = theoretical effect of organizational change (**OC**) on **PE**;
- β_3 = theoretical effect of interdisciplinary competencies (**IC**) on **PE**;
- β_4 = theoretical effect of adaptive capacity (**AC**) on **PE**.

The proposed equation is purely theoretical and does not involve empirical estimation. Its purpose is heuristic rather than predictive. It illustrates the proposition that educational transformation emerges from the interaction between technological developments and evolving organizational requirements.

A second theoretical relationship concerns the dynamic interaction between organizational transformation and educational adaptation:

$$dE(t)/dt = f[T(t), O(t), G(t)]$$

where:

- **E(t)** denotes educational transformation over time;
- **T(t)** represents technological evolution;
- **O(t)** denotes organizational change;
- **G(t)** represents governance and institutional responses.

This systems-oriented formulation reflects the assumption that higher education and organizational environments co-evolve rather than change independently.

The conceptual framework also incorporates recursive feedback mechanisms:

$$C_{t+1} = f(C_t, E_t, O_t)$$

where **C** represents graduate competencies, which are continuously reshaped by educational systems and organizational demands. This recursive relationship reflects the idea that competencies are not static attributes but dynamic capabilities that evolve through interactions among educational institutions, technologies, and labor markets.

The study acknowledges several limitations inherent in conceptual research. First, the framework has not been empirically validated and should therefore be considered exploratory. Second, the analysis abstracts from national and disciplinary differences that may influence how universities respond to artificial intelligence. Third, the rapid pace of technological change means that some organizational developments remain speculative and may evolve differently than current trends suggest.

Despite these limitations, conceptual inquiry performs an important function during periods of institutional transformation. By clarifying assumptions, identifying emerging patterns, and proposing integrative models, conceptual research can provide a foundation for future empirical investigations and support more informed discussions regarding the future of higher education in post-human organizational environments.

The following section applies this framework to examine the implications of artificial intelligence for educational systems and to discuss the competencies and institutional arrangements required in increasingly post-human organizational ecosystems.

4. Results and Discussions

The conceptual analysis suggests that artificial intelligence is not simply introducing new technologies into higher education but is altering the institutional assumptions that have traditionally defined educational systems and organizational participation. The emergence of post-human organizations changes the relationship between knowledge, expertise, and human agency. As intelligent systems increasingly participate in decision-making, communication, and knowledge production, universities face growing pressure to reconsider what it means to educate individuals for professional and civic life.

One of the most significant findings emerging from the literature is the gradual transition from educational models centered on knowledge accumulation toward models that prioritize adaptive and relational capabilities. Traditional university structures were developed in environments characterized by relatively stable professions and clearly identifiable disciplinary boundaries. In contrast, post-human organizations operate within dynamic ecosystems where professional roles continuously evolve and where intelligent systems increasingly perform tasks that were previously associated with human expertise.

This transformation implies that disciplinary specialization, while still necessary, is no longer sufficient. Jensen et al. (2025) observe that generative artificial intelligence challenges the assumption that information acquisition constitutes the central objective of higher education. Access to information has become increasingly democratized, and intelligent systems can now perform analytical and creative tasks that previously required extensive human expertise.

Consequently, the value of higher education may increasingly reside in its ability to cultivate capacities that remain difficult to automate, including systems thinking, ethical reasoning, contextual judgment, and interdisciplinary problem-solving.

The analysis further indicates that post-human organizations require a different understanding of intelligence itself. Human intelligence and machine intelligence should not be interpreted as competing entities but as complementary forms of capability operating within broader socio-technical systems. Luckin (2025) argues that educational institutions should focus on nurturing forms of intelligence that allow individuals to collaborate effectively with artificial systems rather than attempting to compete directly with computational capabilities. This perspective aligns with posthumanist approaches that reject strict distinctions between humans and technologies and instead emphasize relational and distributed forms of agency (Snaza & Weaver, 2015; Tallberg & Huopainen, 2024).

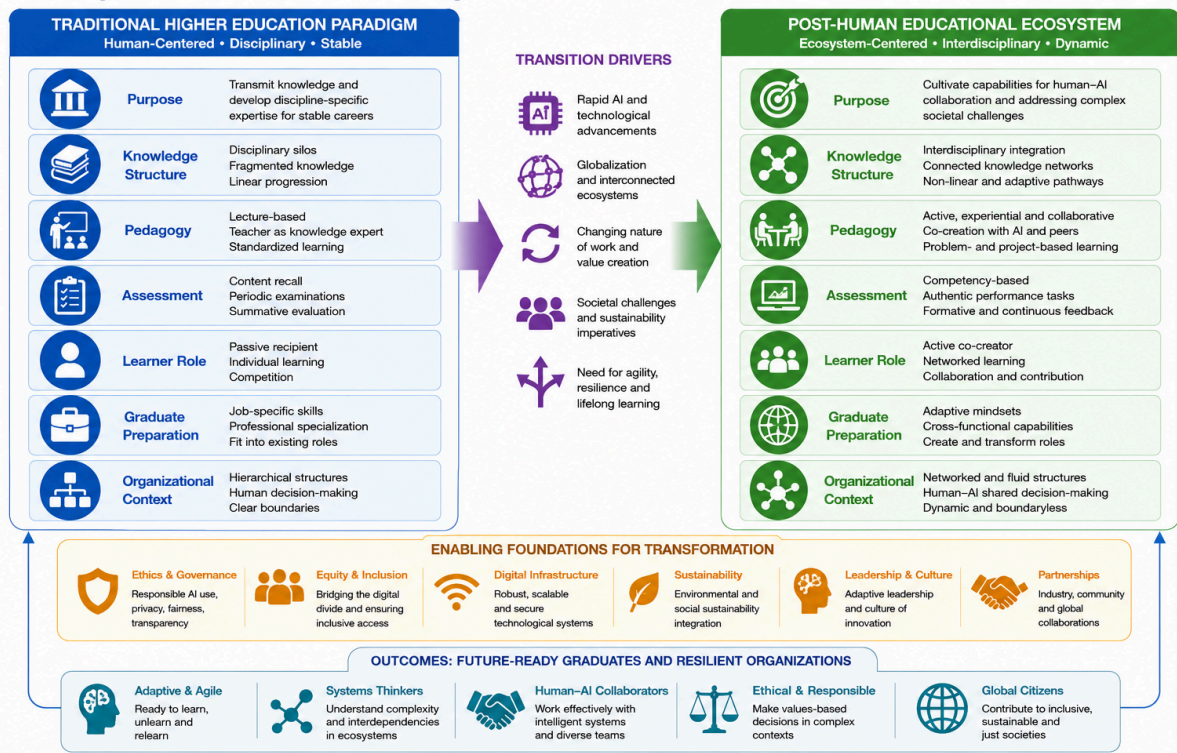
A second important finding concerns the changing meaning of employability. Much of the higher education literature continues to frame employability in terms of technical skills and professional competencies associated with existing labor markets. However, the increasing integration of artificial intelligence into organizational processes introduces substantial uncertainty regarding future occupational structures. Chiu (2024) argues that universities should prepare students for forms of work that may not yet exist and for organizational contexts that remain difficult to anticipate.

This observation suggests that adaptive capacity may become one of the most important educational outcomes in the age of artificial intelligence. Adaptive capacity refers not simply to the ability to acquire new technical skills but to the capacity to navigate ambiguity, engage in continuous learning, and reconfigure knowledge across changing contexts. Organizations increasingly require individuals who can move across disciplinary boundaries and integrate diverse forms of knowledge within complex problem-solving environments.

Figure 2 illustrates this transition from traditional educational paradigms toward post-human educational ecosystems.

Figure 2. From Traditional Higher Education to Post-Human Educational Ecosystems

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Source: Authors' conceptualization.

The figure conceptualizes educational transformation as a dynamic process driven by interactions among artificial intelligence, organizational change, and evolving competency requirements. The model illustrates how universities move from disciplinary and human-centered approaches toward ecosystem-based forms of education characterized by interdisciplinarity, continuous adaptation, and human-machine collaboration.

The figure also highlights the recursive nature of educational transformation. Changes in organizational environments influence university curricula and pedagogical practices, which in turn shape the competencies of future graduates and subsequently affect organizational adaptation. Higher education and post-human organizations therefore co-evolve rather than operate as independent systems.

Another significant finding concerns the emergence of systems thinking as a foundational competency. Complex organizational environments increasingly require individuals capable of understanding interactions among technological, social, ethical, and institutional dimensions. Systems thinking enables graduates to recognize feedback loops, unintended consequences, and interdependencies that characterize contemporary socio-technical systems.

This finding resonates with recent scholarship emphasizing the limitations of narrowly specialized forms of expertise. De Vaujany et al. (2024) argue that posthuman organizational realities require more holistic and relational forms of understanding. Similarly, Labraña and

Rodríguez Ponce (2026) suggest that universities increasingly function as complex adaptive systems in which organizational learning and technological change interact recursively.

Ethical reasoning also emerges as a central competency for post-human organizational participation. Artificial intelligence generates questions concerning accountability, transparency, bias, and the distribution of power that cannot be addressed solely through technical knowledge. Vega (2026) emphasizes that technological transformations are inseparable from questions of responsibility and social justice. Future graduates will therefore require the ability to critically evaluate the societal implications of intelligent systems and participate in governance processes surrounding emerging technologies.

The literature additionally points to a growing importance of interdisciplinarity. Contemporary organizational challenges such as sustainability transitions, digital governance, and technological disruption cannot be adequately addressed within isolated disciplinary frameworks. Interdisciplinary learning encourages cognitive flexibility and allows students to integrate diverse forms of knowledge when confronting complex and uncertain problems. Bărbulescu et al. (2026) demonstrate that interdisciplinary educational approaches contribute to more holistic understandings of sustainability and societal change, findings that appear equally relevant in the context of artificial intelligence.

These observations collectively suggest that higher education is entering a period of institutional redefinition. The traditional mission of transmitting disciplinary expertise remains important, yet it increasingly coexists with broader responsibilities related to preparing graduates for participation in socio-technical ecosystems characterized by uncertainty and continuous transformation.

The principal analytical insights are summarized in Table 2.

Table 2. Educational Transformation and Competency Requirements in Post-Human Organizations

Dimension	Traditional Educational Paradigm	Post-Human Educational Paradigm	Organizational Implications	Emerging Competencies
Knowledge	Disciplinary expertise	Integrated and relational knowledge	Cross-functional collaboration	Systems thinking
Learning	Knowledge acquisition	Continuous adaptation	Lifelong learning cultures	Adaptive capacity
Technology	Instructional support	Human-machine collaboration	Hybrid organizational systems	AI literacy
Leadership	Individual authority	Distributed agency	Networked decision-making	Collaborative competence
Assessment	Content mastery	Competency	Dynamic performance	Reflective

		development	expectations	learning
Problem-solving	Linear reasoning	Complex systems analysis	Adaptive organizational responses	Interdisciplinary thinking
Ethics	Professional standards	Socio-technical responsibility	Algorithmic governance	Ethical reasoning
Employability	Occupational readiness	Capacity for transformation	Fluid professional identities	Learning agility
Communication	Human interaction	Human-digital interaction	Platform-mediated collaboration	Digital communication
Organizational participation	Functional specialization	Ecosystem engagement	Boundary-spanning work	Integrative capabilities

Source: Authors' synthesis based on Luckin (2025), Jensen et al. (2025), De Vaujany et al. (2024), Chiu (2024), and Labraña and Rodríguez Ponce (2026).

The analysis ultimately indicates that educating for post-human organizations requires more than curricular modernization or technological integration. It demands a reconsideration of the purposes of higher education and a broader understanding of human capability in environments where intelligence and agency are increasingly distributed across complex socio-technical systems. Universities are therefore confronted with a strategic and philosophical challenge that extends beyond digital transformation itself. They are being called upon to prepare individuals for forms of organizational participation that require new ways of understanding knowledge, work, and what it means to be educated in an age of intelligent machines.

Figure 3. Co-Evolutionary Model of Universities, Artificial Intelligence, and Post-Human Organizations

**Figure 3. Co-Evolutionary Model of Universities, Artificial Intelligence,
and Post-Human Organizations**
A Dynamic, Reciprocal, and Continuous Process

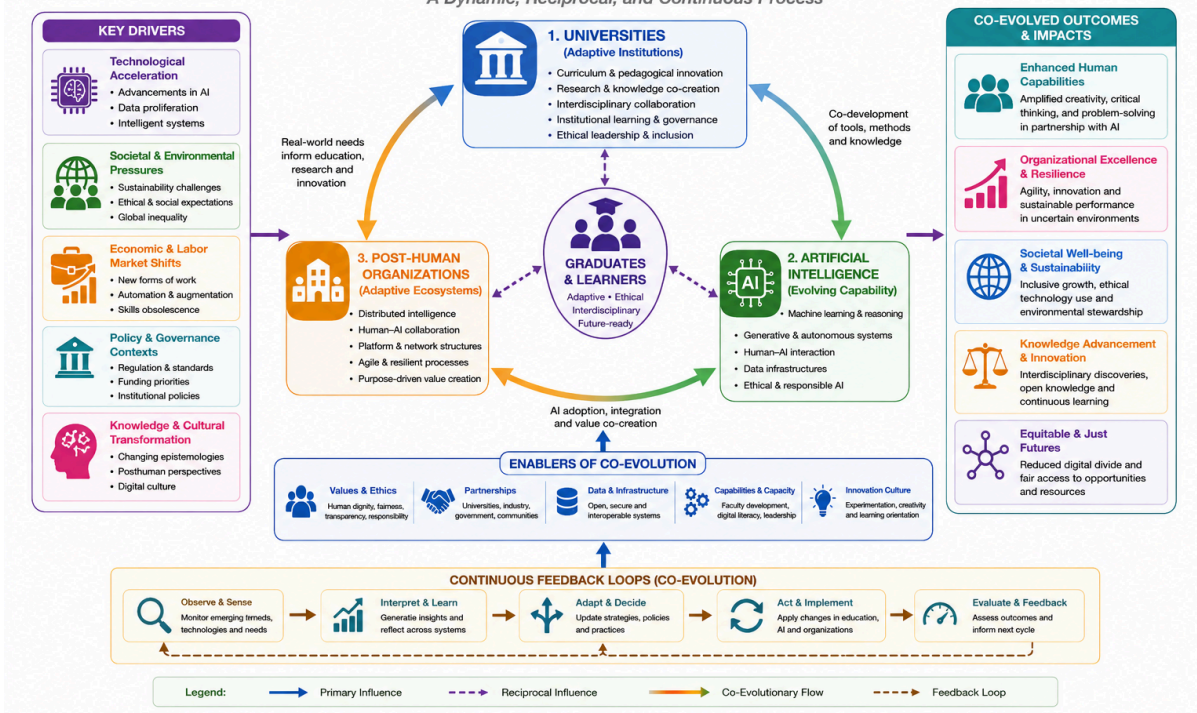


Figure 3 would provide an integrative synthesis of the entire paper and is often appreciated by reviewers because it visually connects educational transformation, organizational change, and future competencies into a single conceptual model.

5. Conclusions

The emergence of artificial intelligence is reshaping not only organizational practices but also the conceptual foundations upon which higher education has traditionally been constructed. This paper has argued that contemporary universities are increasingly confronted with a challenge that extends beyond technological adaptation. The integration of intelligent systems into organizational life raises fundamental questions regarding the purpose of education, the nature of expertise, and the forms of human capability required in environments characterized by distributed agency and continuous transformation.

The analysis suggests that the transition toward post-human organizations requires a reconsideration of prevailing educational paradigms. Conventional models centered primarily on disciplinary specialization and knowledge transmission appear increasingly insufficient for preparing graduates to operate within socio-technical ecosystems where humans and intelligent systems collaborate in dynamic and often unpredictable ways. While disciplinary expertise remains important, future organizational environments demand broader capabilities that enable individuals to navigate complexity, ambiguity, and technological change.

A central theoretical contribution of this paper lies in connecting posthuman organizational theory with current debates on higher education and artificial intelligence. Existing scholarship has frequently examined these domains separately. Research on artificial intelligence in higher education has focused largely on teaching practices, assessment methods, and digital transformation initiatives. Conversely, posthumanist studies and emerging organizational theories have explored the implications of distributed agency and technological mediation without systematically addressing the educational conditions necessary for participation in post-human organizations. By integrating these perspectives, the present study proposes a conceptual framework that positions higher education as a critical institutional space for preparing individuals to function within increasingly complex socio-technical systems.

The findings further indicate that future-oriented educational models should place greater emphasis on systems thinking, adaptive capacity, ethical reasoning, interdisciplinary problem-solving, and the ability to collaborate effectively with intelligent technologies. These competencies should not be interpreted as isolated skills or technical proficiencies. Rather, they constitute broader capabilities that allow individuals to understand interdependencies, evaluate the societal implications of technological systems, and respond constructively to environments characterized by uncertainty and continuous change.

The study also contributes to discussions concerning organizational resilience and long-term institutional sustainability. Post-human organizations increasingly depend upon individuals who can integrate human judgment with machine-generated insights while maintaining ethical awareness and contextual sensitivity. Universities therefore play an important role not only in workforce preparation but also in shaping the capacities that will influence the future relationship between technology, organizations, and society.

Several practical implications emerge from the analysis. Universities may need to reconsider curriculum design, assessment practices, and pedagogical approaches in ways that encourage interdisciplinary learning and systems-oriented thinking. Educational governance structures may also require adaptation to support more flexible and responsive models of learning capable of addressing rapidly evolving organizational environments. At the same time, institutions should remain attentive to issues of technological exclusion and educational inequality, ensuring that the benefits of artificial intelligence do not reinforce existing disparities in access and opportunity.

The paper also acknowledges several limitations. As a conceptual study, it does not provide empirical evidence regarding the effectiveness of particular educational interventions or the specific competencies associated with successful participation in post-human organizations. The proposed framework should therefore be understood as exploratory and heuristic. Furthermore, the analysis necessarily abstracts from national, cultural, and disciplinary differences that may significantly influence how universities and organizations experience technological transformation.

These limitations point toward several promising directions for future research. Empirical studies could examine the relationships proposed in the conceptual framework using

structural equation modeling to investigate how educational practices influence adaptive capacities and organizational readiness. Comparative studies across countries and institutional contexts may provide insights into how different higher education systems respond to post-human organizational challenges. Longitudinal research could explore the evolution of graduate competencies over time and examine how human-machine collaboration shapes professional identities and organizational participation. Multi-level studies that integrate individual, organizational, and institutional perspectives would also contribute to a more nuanced understanding of educational transformation in the age of artificial intelligence.

The transition toward post-human organizations is still unfolding, and many of its consequences remain uncertain. Nevertheless, one conclusion appears increasingly difficult to avoid. Higher education can no longer be understood solely as a mechanism for transmitting existing knowledge and preparing students for relatively stable professional roles. It is becoming a central arena in which societies negotiate the future relationship between humans, intelligent technologies, and organizational life. Preparing graduates for post-human organizations therefore requires more than digital competence or technological literacy. It calls for a broader educational vision capable of cultivating reflective, adaptive, and ethically grounded individuals who can participate meaningfully in increasingly interconnected and technologically mediated worlds.

References

- Aboderin, O. S. (2025). Exploring integration of 4IR technologies in Nigerian universities: Implications for pedagogy and skills development. *International Journal of Education, Leadership, Artificial Intelligence, Computing, Business, Life Sciences, and Society*, 2(02), 50-66. <https://doi.org/10.65222/VIRAL.2025.9.9>
- Appelbaum, P. (2024). *Post-Anthropocene Civic and Global Education Studies: Beyond Posthuman Perspectives* (Vol. 15). Springer Nature. <https://doi.org/10.1007/978-3-031-71881-6>
- Al-Amoudi, I. (2023). The politics of post-human technologies: Human enhancements, artificial intelligence and virtual reality. *Organization*, 30(6), 1238-1245. <https://doi.org/10.1177/13505084231189269>.
- Bayne, S. (2015). Teacherbot: Interventions in automated teaching. *Teaching in Higher Education*, 20(4), 455-467. <https://doi.org/10.1080/13562517.2015.1020783>
- Bărbulescu, R., Matei, M. A., & Latea, C. D. (2026). Teaching sustainability in economics through game-based learning: An interdisciplinary approach. *International Journal of Education, Leadership, Artificial Intelligence, Computing, Business, Life Sciences, and Society*, 4(04), 12-20. <https://doi.org/10.65222/VIRAL.2026.1.2.22>
- Billsberry, J. (2026). Dehumanising leadership: AI and the construction of post-human leadership. *Leadership & Organization Development Journal*, 47(2), 282-293.

Braidotti, R. (2013). *The posthuman*. Cambridge: Polity Press.

Chhabra, G., Mehdiyan, N., & Vasishta, P. (2024). Rethinking higher educational practices in the age of artificial intelligence. In *2024 IEEE 5th India Council International Subsections Conference (INDISCON)* (pp. 1-6). IEEE. <https://doi.org/10.1109/INDISCON62179.2024.10744297>

Chiu, T. K. F. (2024). Future research recommendations for transforming higher education with generative AI. *Computers and Education: Artificial Intelligence*, 6, 100197.

De Vaujany, F. X., Gherardi, S., & Silva, P. (2024). *Organization studies and posthumanism*. Routledge.

Do, N. B., Nguyen, H. M., & Do, H. N. (2026). Optimism or pessimism? Rethinking artificial intelligence experience in higher education institutions - the mediation and moderation analysis. *Entrepreneurship Education*, 1-20.

Dung, D. A., Toan, N. T., Minh, N. D., & Anh, N. Q. (2026). Reimagining quality: Artificial intelligence, governance and the politics of data in higher education. *Higher Education for the Future*, 13(1), 50-73.

Fan, R., & Li, Y. Y. (2026). Mediating the post-human: Cultural implications of generative AI in everyday communication. *Computational and Mathematical Organization Theory*, 32(1), 4.

Floridi, L., & Chiriatti, M. (2020). GPT-3: Its nature, scope, limits, and consequences. *Minds and Machines*, 30(4), 681-694. <https://doi.org/10.1007/s11023-020-09548-1>

Ghasemi, S., & Izadpanah, A. (2026). Rethinking the concept of learning in the age of artificial intelligence: The possibilities and limitations of human education. *Assessment and Practice in Educational Sciences*, 4(2), 1-13.

Herbrechter, S. (2018). *Posthumanism and the ends of education*. Routledge.

Jandrić, P. (2020). Postdigital research in the time of COVID-19. *Postdigital Science and Education*, 2(2), 233-238. <https://doi.org/10.1007/s42438-020-00113-8>

Jensen, L. X., Buhl, A., Sharma, A., & Bearman, M. (2025). Generative AI and higher education: A review of claims from the first months of ChatGPT. *Higher Education*, 89(4), 1145-1161. <https://doi.org/10.1007/s10734-024-01265-3>

Kelly, A., Sullivan, M., & Strampel, K. (2023). Generative artificial intelligence: University student awareness, experience, and confidence in use across disciplines. *Journal of University Teaching and Learning Practice*, 20(6), 1-16.

Kimalel, B. (2025). The impact of social media on competency-based curriculum skills acquisition among pupils in Chesumei constituency, Nandi County, Kenya. *International*

Journal of Education, Leadership, Artificial Intelligence, Computing, Business, Life Sciences, and Society, 3, 22-39. <https://doi.org/10.65222/VIRAL.2025.11.16>

Labraña, J., & Rodríguez-Ponce, E. (2026). Artificial intelligence and organizational learning in universities: Decision premises, paradoxes, and institutional stability. *Journal of Organizational Change Management*, 1-16.

Luckin, R. (2025). Nurturing human intelligence in the age of AI: Rethinking education for the future. *Development and Learning in Organizations: An International Journal*, 39(1), 1-4. <https://doi.org/10.1108/DLO-04-2024-0108>

Nguyen, T. D., Le, T. Q., Luong, G. T., & Nguyen, D. T. (2025). A review of applying game-based learning and learning motivation. *International Journal of Education, Leadership, Artificial Intelligence, Computing, Business, Life Sciences, and Society*, 3, 67-74. <https://doi.org/10.65222/VIRAL.2025.12.20>

Ncube, P. D., Dzvapatsva, G. P., Matobobo, C., & Ranga, M. M. (2026). Redefining student assessment in AI-infused learning environments: A systematic review of challenges and strategies for academic integrity. *AI and Ethics*, 6(1), 68. <https://doi.org/10.1007/s43681-025-00871-w>

Ruano-Borbalan, J. C. (2025). The transformative impact of artificial intelligence on higher education: A critical reflection on current trends and future directions. *International Journal of Chinese Education*, 14(1), 2212585X251319364. <https://doi.org/10.1177/2212585X251319364>

Selwyn, N. (2019). *Should robots replace teachers? AI and the future of education*. Cambridge: Polity Press.

Shallari, I., Rollins, M., Zhao, X., & Carratù, M. (2026). Introduction to the minitrack on generative artificial intelligence in higher education. *Proceedings of the Hawaii International Conference on System Sciences*.

Shapiro, S. J., & Lam, V. D. (2026). Bridging the AI divide: Equity, integrity, and the governance of generative AI in higher education. In *Rethinking Education and Agency in the Age of Human-Generative AI Interaction* (pp. 183-220). IGI Global Scientific Publishing.

Snaza, N., & Weaver, J. A. (Eds.). (2015). *Posthumanism and educational research* (Vol. 35). Routledge.

Sol, K., Sok, S., & Heng, K. (2025). Rethinking assessment in higher education in the age of generative AI. In *Encyclopedia of Educational Innovation*. Springer. https://doi.org/10.1007/978-981-13-2262-4_327-1

Tallberg, L., & Huopalaianen, A. (2024). We are the missing people: On posthumanist onto-epistemologies in organization studies. In *Organization Studies and Posthumanism* (pp. 29-52). Routledge.

Vega, J. (2026). Rethinking AI in the age of climate collapse: Ethics, power, and responsibility. *arXiv preprint arXiv:2601.18462*. <https://doi.org/10.48550/arXiv.2601.18462>

Vulpe, M. I., Stancu, S., Munteanu, P., & Bărbulescu, R. (2026). Digital divide and technological exclusion: Strategies for inclusive ICT skill development in adult education. *International Journal of Education, Leadership, Artificial Intelligence, Computing, Business, Life Sciences, and Society*, 5, 81-92. <https://doi.org/10.65222/VIRAL.2026.2.12.32>

Weber, S. M., Spahn, L., & Heidelmann, M. A. (2024). Transcending critique: Towards a post-anthropocentric approach in organizational education research. In *Organisation und Kritik: Jahrbuch der Sektion Organisationspädagogik* (pp. 105-118). Wiesbaden: Springer Fachmedien Wiesbaden.