



# Artificial Intelligence, Human Agency, and Ethical Stewardship: Reimagining Higher Education in a Transformative Global Era

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**Abstract:** Artificial Intelligence (AI) is no longer a peripheral innovation in higher education; it is rapidly becoming part of everyday teaching, learning, and academic decision-making. From generative AI tools that assist students in writing and problem-solving to algorithmic systems that shape assessment and institutional governance, AI is reshaping how knowledge is produced and evaluated. While these developments offer genuine opportunities to enhance learning and inclusion, they also raise pressing questions about human agency, ethical responsibility, and the future role of educators and students. This paper argues that higher education must move beyond viewing AI as a purely technical solution and instead approach it as a socio-ethical challenge. Drawing on interdisciplinary research and global policy frameworks, the paper proposes a human-centered reframing of AI integration—one that preserves human judgment, strengthens ethical accountability, and aligns technological innovation with education's public mission.

## I. INTRODUCTION: WHY AI IN HIGHER EDUCATION IS A HUMAN QUESTION

II. Universities around the world are experiencing a moment of deep uncertainty and possibility. Artificial intelligence, particularly generative AI, has entered classrooms faster than most institutions can respond. Students are already using AI to brainstorm ideas, draft essays, debug code, and study for exams. Educators, meanwhile, are grappling with how to assess learning, maintain academic integrity, and redefine what it means to teach in an AI-rich environment.

III. Much of the current conversation about AI in higher education focuses on efficiency—faster grading, personalized feedback, scalable learning systems. While these benefits are real, they risk obscuring a more fundamental issue: education is ultimately about people, not systems. Higher education has always been tasked with developing independent thinkers, ethical professionals, and engaged citizens. If AI reshapes how students think, decide, and take responsibility, then its adoption cannot be treated as a neutral or purely technical upgrade.

IV. This research starts from a simple but powerful premise, the central challenge of AI in higher education is not technological capability but the preservation of human agency and ethical responsibility in a rapidly changing global context.

### 1.1 Objectives of study

1. To critically examine the role of artificial intelligence in higher education by analyzing its impact on human agency, particularly in terms of autonomy, decision-making, and academic responsibility.
2. To develop a human-centered conceptual framework that integrates AI capability with ethical responsibility, focusing on issues such as fairness, transparency, and academic integrity in an AI-driven academic environment.

## 1.2 Significance of study

This study is significant as it provides a conceptual understanding of how artificial intelligence is reshaping higher education through the lenses of AI capability, human agency, and ethical responsibility. By synthesizing existing research, it highlights the need to balance technological advancement with human autonomy and decision-making. The study also emphasizes the importance of ethical practices, including fairness, transparency, and academic integrity in AI use. Furthermore, it offers a human-centered framework that can guide institutions in aligning teaching, assessment, and governance with responsible AI integration, while also identifying directions for future research.

## 2. AI in Higher Education: Progress Without a Compass?

### 2.1 From Early Automation to Generative Intelligence

Early applications of AI in higher education focused on relatively bounded tasks: adaptive tutoring systems, automated grading, learning analytics, and administrative decision-making. These systems promised efficiency and data-driven insight, and in many cases they delivered measurable improvements.

However, recent advances in generative AI represent a qualitative shift. Unlike earlier systems, generative AI can participate in meaning-making activities traditionally reserved for humans—writing, reasoning, and creative synthesis. This shift has unsettled long-standing assumptions about authorship, originality, and learning itself.

Large-scale reviews of the literature show that while AI research in higher education is expanding rapidly, ethical reflection and pedagogical grounding often lag behind technological enthusiasm. In other words, institutions are adopting powerful tools without fully understanding how they reshape learning relationships, power structures, and responsibility.

### 2.2 How Students and Educators Actually Experience AI

Empirical studies consistently show ambivalence. Many students appreciate AI as a learning companion that reduces cognitive overload and supports exploration. At the same time, they worry about becoming overly dependent, being unfairly judged, or violating unclear academic integrity rules.

Educators express similar tensions. Some see AI as a valuable assistant that frees time for deeper engagement with students. Others fear loss of professional identity, erosion of trust, and increased pressure to police AI use rather than support learning. These lived experiences suggest that AI in higher education is not simply a tool but it is a relational technology that reshapes how students and educators understand their roles.

## 3. Human Agency: What Is at Stake?

### 3.1 Agency as the Heart of Higher Education

Human agency—the capacity to think independently, make informed choices, and take responsibility for one's actions—is not an optional outcome of higher education. It is its moral core. Universities do not merely transmit knowledge; they cultivate judgment, critical thinking, and ethical awareness.

When students rely uncritically on AI-generated outputs, there is a risk that cognitive effort is displaced rather than supported. When decisions about learning pathways or assessment are delegated to opaque algorithms, agency can quietly erode. Yet agency is not automatically lost in the presence of AI. The crucial question is how AI is designed, framed, and embedded in educational practice.

### 3.2 AI as Partner, Not Proxy

Design-based research reminds us that learning emerges from interactions among people, tools, and social arrangements. From this perspective, AI should function as a *cognitive partner*—supporting reflection, offering alternative perspectives, and prompting deeper inquiry.

When students are encouraged to interrogate AI outputs, justify their choices, and reflect on how AI shaped their thinking, agency can actually be strengthened. Conversely, when AI use is invisible, unquestioned, or purely instrumental, it risks becoming a proxy for thinking rather than a support for it.

## 4. Ethical Responsibility in an AI-Mediated University

### 4.1 Beyond “Cheating”: A Broader Ethical Landscape

Public debates often reduce ethical concerns about AI to academic misconduct. While issues such as authorship and plagiarism are important, they represent only a fraction of the ethical challenges at stake.

AI systems can reproduce social biases, obscure decision-making processes, and normalize surveillance-based models of education. Students may be evaluated by systems they do not understand, using data they did not knowingly consent to provide. These issues raise a deeper ethical question:

## 4.2 Who is responsible when educational decisions are shaped by AI systems?

### From Compliance to Ethical Culture

International frameworks increasingly emphasize that ethical AI in education cannot be achieved through technical safeguards alone. Transparency, explainability, human oversight, and participatory governance are essential but insufficient without a shared ethical culture.

Institutions that treat ethics as a checklist or compliance exercise risk missing the point. Ethical responsibility must be embedded in curriculum design, assessment practices, staff development, and student engagement. Ethics, in this sense, becomes a lived practice rather than a policy document.

### 5. Literature Review

This section synthesizes recent scholarship on generative AI in higher education around four themes that closely align with the focus of this study: autonomy and human agency, institutional ethics and governance, user perspectives on AI ethics, and academic integrity and assessment.

#### 5.1 Autonomy and Human Agency in an AI-Rich University

Recent workplaces autonomy and human agency at the center of debates about generative AI in education. Venter (2024) argues that tools like large language models sit on a “knife edge”: they can either scaffold autonomy or quietly displace it, depending on how educators frame their use in teaching and assessment. When AI is positioned as a shortcut to answers, students’ cognitive effort and reflective judgment risk being outsourced; when it is designed into tasks that require critique, comparison, and justification of AI outputs, it can instead foster deeper metacognition and self-awareness.

Long and colleagues (2023) extend this idea by advocating a “human-agency-oriented” approach to AI literacy in higher education, in which students are explicitly taught to question, interpret, and ethically engage with AI systems rather than simply operate them. Their model foregrounds learners’ capacity to make informed choices about when to rely on AI, when to resist it, and how to remain accountable for work produced with its support. Together, these studies reinforce the premise of this paper that AI should function as a cognitive partner rather than a proxy, and that preserving human agency requires intentional pedagogical design rather than purely technical controls.

#### 5.2 Institutional Ethics, Policy Responses, and Governance

A growing body of research examines how universities are responding to generative AI through policies and ethical frameworks. Rauschenberger et al. (2024) analyze early policy responses of higher education institutions and find that many documents reference global norms around fairness, transparency, and integrity, yet often remain high-level and ambiguous in terms of implementation and accountability. Their study suggests that institutional reactions are frequently reactive—centered on risk management and misconduct—rather than proactive efforts to reimagine pedagogy and governance in light of AI.

Gulson and Witzemberger (2025) deepen this critique by arguing that “ethics is the edge” for AI in higher education, contending that the success or failure of AI initiatives will depend less on technical sophistication and more on institutional choices about justice, responsibility, and trust. They call for cross-disciplinary forums, shared governance, and ongoing participatory dialogue with staff and students as essential conditions for ethical AI adoption, rather than optional add-ons. This emphasis on ethical culture over mere compliance resonates strongly with the present study’s argument that AI in higher education must be approached as a socio-ethical challenge, where leadership decisions about AI are simultaneous decisions about power, values, and the public mission of universities.

#### 5.3 Users’ Lived Experiences and Ethical Concerns

Ethical debates about AI in education are increasingly informed by users’ lived experiences. In a systematic review, Ahmad and Singh (2024) synthesize studies exploring how students and educators perceive AI ethics, highlighting recurring concerns about privacy, surveillance, opacity, and the potential amplification of bias in decision-making processes. Their review shows that while many users recognize the convenience and personalization that AI can offer, they also report feelings of unease when they do not understand how systems operate, what data are collected, or how algorithmic decisions are made about them.

This user-centered evidence underscores the relational nature of AI: it not only processes data but also reshapes trust, vulnerability, and the sense of being seen or judged within educational systems. The gap that Ahmad and Singh (2024) identify, between institutional narratives of innovation and users’ need for transparency and consents supports the present study’s focus on ethical responsibility as a lived practice embedded in curriculum, assessment, and everyday academic interactions, rather than as a set of abstract principles alone.

#### 5.4 Academic Integrity, Assessment, and the Role of AI

Academic integrity has become a focal point for institutional responses to generative AI, and recent literature suggests that this space is both a risk and an opportunity. Johnson and Lee (2025) review research on generative AI and academic integrity in higher education and conclude that bans and detection technologies offer, at best, partial and temporary solutions. As AI-generated text becomes more sophisticated and difficult to distinguish from human writing, they argue that assessment practices must shift toward emphasizing reasoning processes, iterative drafts, oral explanations, and explicit disclosure of AI use.

Su and Yang (2024) take a constructive stance, arguing that generative AI need not undermine integrity if it is integrated into tasks that require students to critique, refine, and justify AI outputs as part of their learning. They propose viewing AI as a catalyst for redesigning assessments that foreground dialogue, reflection, and shared responsibility, rather than as a threat to be policed. This direction aligns closely with the present paper's call to move from a deficit view of AI—focused solely on cheating—toward a human-centered model in which integrity is cultivated through transparent, process-oriented, and relational assessment practices.

#### 5.5 Reframing AI Integration: From Tools to Human-Centered Frameworks

Across these strands of research, a converging insight emerges: AI in higher education cannot be understood adequately as a standalone technical tool; it must be situated within a broader framework that integrates AI capability, human agency, and ethical responsibility. Studies on autonomy emphasize that the same AI tool can either erode or enhance agency depending on how it is framed and embedded in learning tasks. Policy and governance analyses show that institutional responses often recognize ethical principles in theory but struggle to translate them into participatory structures and everyday practices that build trust and accountability. User-centered reviews reveal that ethical issues are experienced directly in terms of privacy, fairness, and understanding, highlighting the need for transparency and shared responsibility. Work on academic integrity and assessment points to the necessity of redesigning tasks so that AI becomes a prompt for explanation and reflection, not a hidden substitute for thinking.

These converging findings provide a strong empirical and conceptual foundation for the human-centered framework advanced in this paper. They suggest that decisions about AI adoption in higher education are always, at the same time, decisions about who retains agency, how responsibility is distributed, and whether institutions fulfill their public mission to cultivate thoughtful, ethical, and engaged human beings in an AI-rich world.

#### 5.6 Gap Analysis

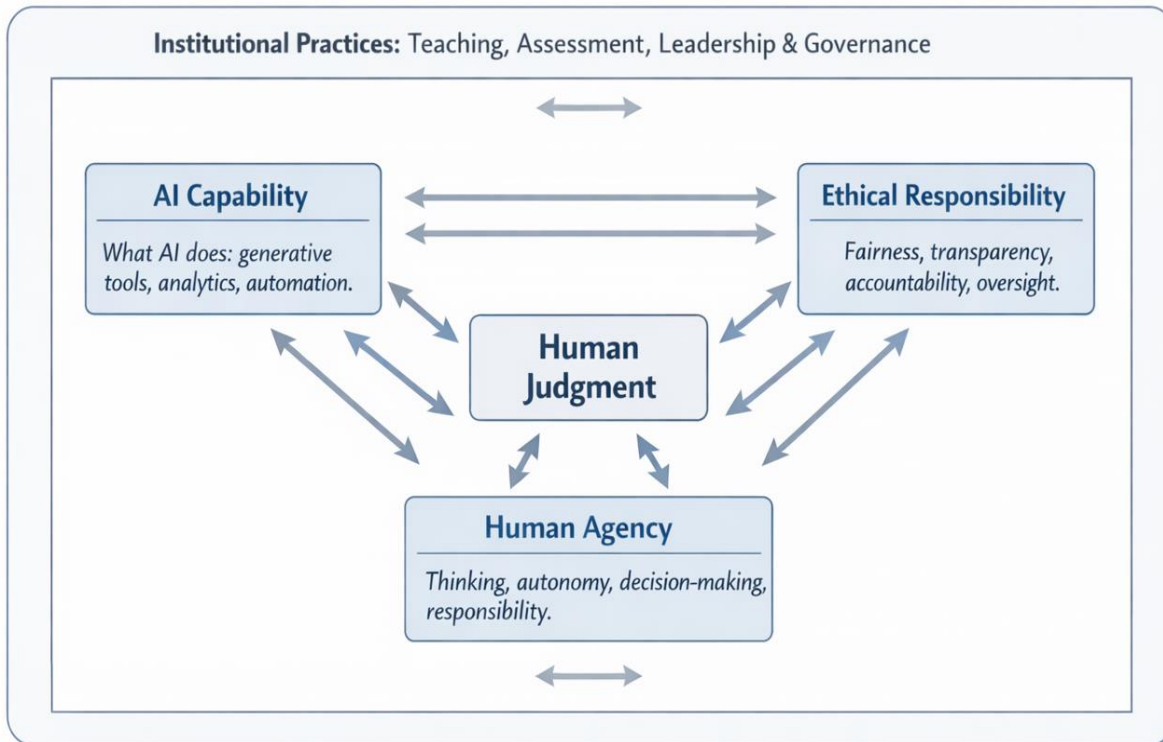
The existing literature offers strong conceptual and policy-level discussions on AI, human agency, and ethics, but reveals clear gaps when it comes to staff-centered, practice-oriented evidence. Many studies theorize autonomy or describe institutional policy responses, yet they provide limited empirical insight into how university staff, across roles, experience generative AI as a relational technology that affects their teaching practices, assessment choices, and sense of ethical responsibility in day-to-day work. Reviews and conceptual papers consistently call for human-agency-oriented AI literacy, participatory governance, and redesign of assessment, but they rarely document, within a specific institutional context, how staff currently perceive AI's impact on human judgment, academic integrity, and ethical culture, or what concrete priorities they believe leadership should pursue. This creates a gap between high-level ethical aspirations and the lived realities of those expected to implement AI in classrooms and governance structures.

### 6. Research Methodology

To address these gaps, the present study adopts a qualitative, conceptual research approach grounded in an extensive review of existing literature. Rather than relying on primary data collection, the study synthesizes insights from prior research, policy documents, and scholarly discussions to examine the evolving relationship between artificial intelligence and human roles in higher education. The analysis is structured around three interrelated dimensions derived from the conceptual framework: AI capability (how AI is utilized and understood), human agency (its implications for autonomy, decision-making, and responsibility), and ethical responsibility (issues of fairness, transparency, academic integrity and institutional readiness).

By critically analyzing and integrating theoretical perspectives across these dimensions, the study identifies key gaps in current understanding and practice, particularly in how AI is positioned as a partner versus a proxy in academic contexts. This approach enables the development and refinement of a human-centered framework that emphasizes the preservation of human agency while strengthening ethical responsibility. The findings offer conceptual clarity and generate actionable insights to guide higher education institutions in aligning teaching, assessment, and governance practices within an increasingly AI-rich environment.

## 7.1 Conceptual framework: AI, Human Agency, and Ethical Responsibility in Higher Education



## 8. A Human-Centered Framework for AI in Higher Education

To guide institutions through this complexity, this paper proposes an integrated framework built around three interdependent dimensions:

1. **AI Capability** – what the system does and how it works
2. **Human Agency** – how AI shapes decision-making, autonomy, and responsibility
3. **Ethical Responsibility** – how fairness, transparency, and accountability are ensured

The key insight of this framework is simple: AI should never be evaluated in isolation from its human and ethical consequences. Decisions about adopting AI tools are simultaneously decisions about pedagogy, power, and values.

## 9. Reframing Practice: What Needs to Change

### 9.1 Teaching and Curriculum

Preparing students for an AI-rich world means teaching them not just how to use AI, but how to question it. AI literacy must include ethical reasoning, critical evaluation, and reflection on human-machine collaboration.

### 9.2 Assessment and Integrity

Rather than escalating surveillance or detection technologies, institutions should redesign assessment to emphasize reasoning, process, and dialogue. When students are asked to explain *how* AI was used and *why* certain choices were made, integrity becomes a matter of learning rather than policing.

### 9.3 Leadership and Institutional Responsibility

Ethical AI adoption requires leadership that values trust over control and dialogue over decree. Cross-disciplinary forums, shared governance structures, and ongoing consultation with students and staff are not optional extras—they are ethical necessities.

## 10. Conclusion: Keeping Humans at the Center

Artificial intelligence is reshaping higher education whether institutions are ready or not. The question is not whether AI will be used, but what kind of educational future it will create.

If higher education treats AI as a shortcut to efficiency, it risks hollowing out the very capacities it exists to cultivate. If, however, AI is approached as a tool that must answer to human values, ethical responsibility,

and educational purpose, it can become a powerful ally in building more reflective, inclusive, and globally responsive universities.

In an era of rapid transformation, the most radical choice higher education can make is to keep humans thinking, responsible, imperfect human at the center of technological change.

## Reference

1. Venter, E. (2024). Generative artificial intelligence and education: A brief ethical reflection on autonomy. *EDUCAUSE Review*. <https://er.educause.edu/articles/2025/1/generative-artificial-intelligence-and-education-a-brief-ethical-reflection-on-autonomy>
2. Yurdunkulu, A. (2025). From academics to aidemics: Unpacking the human–AI relationship in higher education. *Acta Psychologica Advance online publication*. <https://www.sciencedirect.com/science/article/pii/S0001691825011096>
3. Dabis, A., Csáki, C. AI and ethics: Investigating the first policy responses of higher education institutions to the challenge of generative AI. *Humanit Soc Sci Commun* 11, 1006 (2024). <https://doi.org/10.1057/s41599-024-03526-z>  
Article 316. <https://www.nature.com/articles/s41599-024-03526-z>
4. Long, D. R., & colleagues. (2023). Fostering AI literacy: Human-agency-oriented approach to AI usage in higher education. In *HECC 2023 Proceedings*. National University of Singapore. <https://blog.nus.edu.sg/hecc2023proceedings/fostering-ai-literacy-human-agency-oriented-approach-to-ai-usage-in-higher-education>
5. An Q, Yang J, Xu X, Zhang Y, Zhang H. Decoding AI ethics from Users' lens in education: A systematic review. *Heliyon*. 2024 Oct 12;10(20):e39357. doi: 10.1016/j.heliyon.2024.e39357. PMID: 39640624; PMCID: PMC11620203.. <https://pmc.ncbi.nlm.nih.gov/articles/PMC11620203/>
6. Gulson, K. N., & Witzemberger, K. (2025). Ethics is the edge: The future of AI in higher education. *EDUCAUSE Review*. <https://er.educause.edu/articles/2025/6/ethics-is-the-edge-the-future-of-ai-in-higher-education>
7. Bittle, Kyle and El-Gayar, Omar F., "Generative AI and Academic Integrity in Higher Education: A Systematic Review and Research Agenda" (2025). *Research & Publications*. 456. <https://scholar.dsu.edu/bispapers/456/>
8. Tan MJT, Maravilla NMAT. Shaping integrity: why generative artificial intelligence does not have to undermine education. *Front Artif Intell*. 2024 Oct 24;7:1471224. doi: 10.3389/frai.2024.1471224. PMID: 39512399; PMCID: PMC11540794. <https://pmc.ncbi.nlm.nih.gov/articles/PMC11540794/>