

Responsible Use of Artificial Intelligence in Graduate Research: An Islamic Ethical Perspective

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ABSTRACT

Graduate students increasingly utilize generative artificial intelligence (AI) tools across every stage of research—from literature synthesis and coding assistance to data analysis and manuscript drafting. In response, higher education institutions have promulgated procedural disclosure and academic integrity policies. However, existing guidance remains largely compliance-oriented and secular in foundation, leaving unexamined the deeper epistemic and ethical questions that generative AI raises regarding knowledge (‘ilm), fiduciary responsibility (amānah), and justice (‘adl). Grounded in Maqāṣid al-Sharī‘ah (the higher objectives of Islamic law), this paper articulates an actionable, values-based ethical framework for responsible AI adoption in graduate education. By drawing upon classical Islamic legal philosophy, contemporary multidimensional systems theory, and recent empirical research on doctoral supervision, the paper translates the five essential objectives (al-ḍarūriyyāt al-khams)—preservation of faith (ḥifẓ al-dīn), life (ḥifẓ al-nafs), intellect (ḥifẓ al-‘aql), lineage (ḥifẓ al-nasl), and property (ḥifẓ al-māl)—into five practical research integrity principles: intellectual honesty and intentionality, protection of developmental well-being, safeguarding critical reasoning, verification of scholarly lineage (isnād), and equitable resource stewardship. A comprehensive operational decision matrix is presented to guide graduate researchers and supervisors across research phases, demonstrating how Islamic ethical tenets provide a universal, virtue-oriented complement to global higher education governance.

Keywords: *Islamic ethics, Maqāṣid al-Sharī‘ah, artificial intelligence, graduate research, research integrity, doctoral supervision, isnād.*

INTRODUCTION

The exponential integration of generative artificial intelligence (AI) tools into higher education has fundamentally altered the landscape of graduate inquiry. Across universities worldwide, doctoral and master's scholars routinely employ large language models (LLMs) and automated computational assistants for ideation, rapid literature parsing, code generation, data interpretation, and manuscript drafting. Empirical studies of doctoral training indicate that this adoption is predominantly informal, often shrouded in ambiguity, and accompanied by persistent unease among both students and supervisors concerning the boundaries separating productive scaffolding from intellectual abdication (Boyd & Harding, 2025; Lai et al., 2025).

To date, institutional responses have predominantly relied on regulatory and compliance-driven protocols. Higher education bodies and graduate faculties have concentrated their efforts on mandatory disclosure clauses, revised plagiarism policies, and software-based AI detection mechanisms (University of Toronto School of Graduate Studies, 2026). While essential for procedural governance, such mechanisms are structurally limited: they specify punitive thresholds and documentation protocols without furnishing an

internal normative compass that explains why certain practices compromise scholarly authenticity while others elevate human agency.

This conceptual gap underscores the necessity of a values-based epistemic framework. This paper argues that the rich intellectual tradition of Islamic ethics, specifically the framework of *Maqāṣid al-Sharīʿah* (the higher objectives of Islamic law), offers a substantive, enduring architecture to govern research practice. By situating intellectual endeavor within an ethical teleology centered on human dignity, moral stewardship, and epistemic justice, *Maqāṣid al-Sharīʿah* moves beyond sterile rule-compliance to cultivate intrinsic research virtue.

To establish a focused and systematic theoretical inquiry, this paper is guided by two core research objectives and two corresponding research questions:

Research Objectives (Ros)

1. To map the five core dimensions of *Maqāṣid al-Sharīʿah* onto the ethical challenges of generative AI in graduate research.
2. To develop a practical, values-based framework that guides graduate students and supervisors beyond simple compliance rules.

Research Questions (Rqs)

1. How can the classical principles of *Maqāṣid al-Sharīʿah* be translated into standards for ethical AI use in research?
2. How can an Islamic ethical framework guide daily supervisory practices and research tasks better than procedural policies alone?

THEORETICAL FOUNDATIONS

***Maqāṣid al-sharīʿah* as an Ethical Framework**

Systematized by classical jurists such as Al-Ghazālī and Al-Shāṭibī, *Maqāṣid al-Sharīʿah* posits that divine legal and moral injunctions exist to safeguard human welfare (*maṣlaḥah*) and prevent harm (*mafsadah*). Classical jurisprudence classified the primary necessities into five universal objectives (*al-ḍarūriyyāt al-khams*): the preservation of religion or faith (*ḥifẓ al-dīn*), life (*ḥifẓ al-nafs*), intellect (*ḥifẓ al-ʿaql*), lineage (*ḥifẓ al-nasl*), and wealth or property (*ḥifẓ al-māl*) (Auda, 2008). In classical legal treatises, these protections were frequently articulated through defensive, prohibitive penal categories designed to protect physical and societal survival.

However, contemporary Islamic legal philosophy—most notably articulated through Jasser Auda's (2008) systems approach and Mohammad Hashim Kamali's (2008) reconceptualization of *maqāṣid*—demonstrates that these objectives are dynamic, multidimensional values rather than static, isolated legal boundaries. Contemporary scholars establish that in the context of contemporary knowledge-based societies and technological realities, the *maqāṣid* expand from negative protection (*ḥifẓ ʿan al-ʿadam*) toward positive realization and human flourishing (*ḥifẓ min jānib al-wujūd*) (Habib, 2025). Within this systemic paradigm, *ḥifẓ al-dīn* expands from confessional preservation to the safeguarding of ultimate moral purpose, sincere intention (*niyyah*), and moral integrity; *ḥifẓ al-nafs* expands from physical survival

to encompass human dignity, psychological health, and developmental well-being; and *ḥifẓ al-māl* encompasses the just stewardship and equitable distribution of educational and technological capital (Auda, 2008; Kamali, 2008).

This holistic understanding aligns seamlessly with Islamic epistemology, wherein knowledge (*‘ilm*) is intrinsically ethical rather than a value-neutral instrument of utility. As Syed Muhammad Naquib al-Attas (1980) emphasizes, the Islamic philosophy of education is anchored in the concept of *adab*—the recognition and acknowledgement of the proper place, order, and limits of things in relation to one's self, society, and God. *Adab* demands disciplined conduct, intellectual sincerity, and moral restraint in how knowledge is sought, synthesized, and applied. Al-Faki (2014) similarly asserts that evaluating technological artifacts like AI requires scrutinizing their alignment with human accountability, justice, and the sanctity of truth, rather than relying solely on computational efficiency.

Ai in Graduate Research: The Empirical and Institutional Landscape

The urgency of establishing a values-based framework is underscored by recent empirical investigations into graduate school dynamics. Doctoral education is fundamentally an apprenticeship in intellectual independence, characterized by complex social, emotional, and power negotiations between candidate and supervisor (Manathunga, 2007). In her seminal analysis of supervisory pedagogy, Manathunga (2007) demonstrates that graduate mentorship relies heavily on relational trust, transparent communication, and the careful navigation of authority boundaries. The introduction of generative AI destabilizes these delicate relational balances.

Recent empirical findings by Lai et al. (2025) reveal that when doctoral students adopt AI tools clandestinely—fearing penal sanctions or supervisor disapproval—the technology functions as an unacknowledged 'third party' in the supervisory dyad. This creates profound tensions: supervisors report feeling deceived or uncertain regarding the true capabilities of their candidates, while students experience impostor syndrome, ethical guilt, and isolation. Boyd and Harding (2025) similarly documented conflicting institutional attitudes, ranging from enthusiastic endorsement to deep skepticism, alongside valid student concerns regarding the exploitative and uncredited training datasets underlying commercial LLMs.

In response, progressive institutional guidelines, such as those issued by the University of Toronto School of Graduate Studies (2026), have established that candidates must demonstrate unambiguous authorial accountability: the student, rather than an algorithmic processor, must bear intellectual ownership of the thesis. Broader frameworks from EDUCAUSE similarly emphasize human agency, transparency, and the mitigation of ethical harms prior to embedding automated workflows into academic inquiry (Georgieva et al., 2025). The classical Islamic tradition directly addresses these challenges by centering scholarship upon fiduciary duty (*amānah*), intentionality (*ikhlās*), and epistemic justice (*‘adl*).

AN ISLAMIC ETHICAL FRAMEWORK FOR RESPONSIBLE AI USE

By translating the five core *maqāṣid* through modern systemic jurisprudence and epistemic *adab*, we construct five operational principles for graduate inquiry:

Ḥifẓ al-Dīn: Intellectual Sincerity and Intentionality (Ikhlās)

In contemporary scholarship, preserving faith is understood as upholding moral truth and absolute purity of intent. The foundational Islamic legal maxim, 'Actions are judged only by intentions' (*Innamā al-*

a‘mālu bi-l-niyyāt), requires graduate researchers to approach AI with profound authorial honesty. Ethical AI use demands that scholars never deceive examiners or academic audiences regarding the origin of their arguments. Transparent disclosure of AI prompts and methodological scaffolding is not merely a bureaucratic mandate; it is a sacred obligation of epistemic truthfulness.

Ḥifẓ al-Nafs: Protection of Developmental and Psychological Well-Being

Preserving human life extends to nurturing the researcher's cognitive identity, emotional resilience, and professional self-efficacy. Graduate research is inherently strenuous. Over-reliance on AI can erode a scholar's confidence, inducing cognitive dependency, alienation from one's own voice, and profound impostor syndrome. Ḥifẓ al-nafs mandates that AI be leveraged strictly to relieve mechanical fatigue (e.g., formatting, transcription, grammar editing) while zealously protecting the candidate's authentic struggle with conceptual synthesis and creative expression.

Ḥifẓ al-‘Aql: Safeguarding Independent Critical Reasoning

The protection of intellect represents the most direct and crucial intersection with generative technologies. LLMs produce fluent, convincing text that often masks logical fallacies, algorithmic biases, or superficial synthesis. Graduate training is designed to develop autonomous, high-order critical reasoning. Delegating core argumentation, theoretical modeling, or data interpretation to an algorithm constitutes an abdication of ‘aql. Researchers must approach AI outputs as tentative, unverified prompts for rigorous human critique rather than definitive intellectual conclusions.

Ḥifẓ al-Nasl: Preservation of Scholarly Lineage and Verification (Isnād)

While classically referring to biological progeny, contemporary scholars understand ḥifẓ al-nasl as the protection of intellectual parentage, attribution, and heritage. In Islamic scholarship, the tradition of isnād (rigorous chain of human transmission) served as an indispensable methodology to verify the provenance and authenticity of reports, rejecting any narration characterized by anonymous sources (mubham) or broken links (munqaṭi‘). Generative LLMs inherently operate by severing information from its authentic human lineage, frequently synthesizing uncredited ideas and generating fabricated citations ('hallucinations'). Ḥifẓ al-nasl imposes an uncompromising duty upon researchers to verify every citation against primary empirical literature, ensuring that human scholars receive due attribution.

Ḥifẓ al-Māl: Equitable Stewardship and Distributive Justice

Preserving property encompasses the just stewardship of material resources and the prevention of socioeconomic inequity. The commercialization of cutting-edge AI has spawned stark technological divides: well-funded institutions and affluent researchers enjoy access to premium frontier models and specialized computational platforms, while resource-constrained students remain restricted to inferior tools. Rooted in the principle of ‘adl (justice), ḥifẓ al-māl compels universities and supervisors to provide equitable institutional access to AI tools and training, ensuring academic success is not conditioned upon individual financial privilege.

Table 1: Operational Decision Matrix of Maqāṣid-Based AI Governance across Research Stages

Maqāṣid Principle	Graduate Research Stage	Ethically Permissible & Recommended AI Use	Ethically Compromising & Prohibited AI Use
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Ḥifẓ al-Dīn (Moral Truth & Ikhhlās)	Research Conception & Methodology Reporting	Transparently reporting all prompt logs, model versions, and generative workflows within the methodology chapter or appendices.	Concealing AI assistance; presenting algorithmic text as unassisted personal expression; ghost-writing doctoral proposals.
Ḥifẓ al-Nafs (Developmental Well-Being)	Academic Writing & Proofreading	Using AI for linguistic refinement, grammar checks, formatting consistency, and overcoming cognitive block/mechanical fatigue.	Outsourcing the development of personal authorial voice, resulting in cognitive dependency, disengagement, and impostor syndrome.
Ḥifẓ al-‘Aql (Safeguarding Critical Intellect)	Data Interpretation & Discussion	Engaging AI as a 'devil's advocate' to identify logical counter-arguments, audit statistical code, or explore alternative explanations.	Uncritically adopting automated qualitative theme generation or statistical inferences without manual verification and deep cognitive reflection.
Ḥifẓ al-Nasl (Intellectual Lineage & Isnād)	Literature Search & Citation Management	Employing AI for preliminary search query generation to discover relevant scholarly databases and primary texts.	Relying on unverified, hallucinated, or anonymous AI-generated summaries; omitting the primary human authors who originated the concepts.
Ḥifẓ al-Māl (Equitable Stewardship & Justice)	Resource Allocation & Tool Adoption	Institutions providing equitable enterprise licenses, campus-wide AI workshops, and open-source models for all enrolled researchers.	Permitting doctoral evaluation criteria to favor students who can privately afford high-cost proprietary subscription models.

DISCUSSION

The Maqāsid-based ethical framework articulated here repositions generative AI governance from a reactive compliance model to a proactive, character-driven paradigm. While institutional policies typically penalize the unauthorized generation of text as a violation of intellectual property or academic misconduct (University of Toronto School of Graduate Studies, 2026), the Islamic paradigm interprets this transgression as a fundamental breach of amānah (trusteeship). Academic degrees represent an institutional endorsement that a candidate has acquired personal mastery, resilience, and critical autonomy. When candidates submit algorithmic output as their own, they commit an epistemic fraud that violates the covenant binding student, supervisor, and the broader scholarly community.

Crucially, the framework addresses the critical relational breakdown documented in empirical research. As Manathunga (2007) and Lai et al. (2025) note, secrecy surrounding digital tools poisons the mentoring dynamic, fostering an adversarial environment of surveillance and anxiety. Reframing the supervisory dialogue around amānah and ḥifẓ al-nafs liberates both parties: candidates can transparently consult

supervisors about computational scaffolding without fear of blanket criminalization, while supervisors can guide students toward practices that preserve their developmental flourishing.

Importantly, this framework holds profound utility for non-confessional and secular higher education institutions. Although derived from Islamic legal philosophy, the principles of Maqāsid al-Sharī'ah operate as universal ethical categories. They closely parallel contemporary virtue ethics (MacIntyre), epistemic justice (Fricker), and institutional distributive justice (Rawls). In secular environments, ḥifẓ al-'aql translates directly to academic freedom and critical inquiry; ḥifẓ al-nasl mirrors universal attribution standards and scholarly reproducibility; and ḥifẓ al-māl reflects the global imperative for educational equity in the digital era. Consequently, the framework serves as an inclusive, pluralistic model for academic governance worldwide.

LIMITATIONS AND FUTURE RESEARCH

This study presents a conceptual and normative formulation, and its limitations warrant candid acknowledgment. The proposed operational matrix has not yet been subjected to rigorous empirical evaluation across distinct academic disciplines. Empirical perceptions of AI utility differ vastly between the quantitative STEM fields—where algorithmic code generation and mathematical proofing are common—and the interpretive humanities, where personal writing voice is synonymous with scholarship itself.

Future empirical research should investigate how graduate candidates and faculty across both Islamic and secular institutions perceive this values-based framework. Methodological inquiries could deploy mixed-method surveys or longitudinal supervisory interventions to measure whether framing generative AI around amānah, 'aql, and isnād increases voluntary disclosure rates, reduces academic anxiety, and fosters healthier mentoring relationships compared to purely punitive compliance policies.

CONCLUSION

As generative artificial intelligence matures into a permanent fixture of higher education, institutional reliance on superficial detection mechanisms and restrictive mandates will remain insufficient. Research integrity cannot be sustained through surveillance alone; it requires cultivating inner moral responsibility and epistemic virtue. Grounding AI governance in Maqāsid al-Sharī'ah provides graduate education with a comprehensive ethical foundation that protects intentionality (dīn), nurtures human flourishing (nafs), sharpens critical intellect ('aql), honors scholarly lineage (nasl), and demands distributive fairness (māl). By transforming AI from a covert shortcut into a disciplined pedagogical instrument, this values-based architecture equips the next generation of scholars to pursue knowledge with profound excellence, purpose, and integrity.

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