

## The Role of AI Teaching Assistants in Shaping Student Adab (Islamic Ethics) Toward Knowledge and Teachers

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### Abstract

The rapid integration of Artificial Intelligence (AI) in educational ecosystems has precipitated an unprecedented paradigm shift in the acquisition of knowledge. In the context of Islamic education, where learning is inextricably linked to spiritual purification (Tazkiyah) and ethical comportment (Adab), this transition from human-led instruction (Mu'allim) to AI-mediated tutoring poses profound ontological and ethical questions. This paper investigates the impact of generative AI teaching assistants on the development of Adab al-Talib (student etiquette) toward sacred knowledge and traditional teachers. Utilizing a mixed-methods approach, the study contrasts the experiences of N=150 students divided between traditional seminary (Madrassa) environments and an AI-assisted online Islamic academy. The findings indicate a complex dichotomy: while AI significantly enhances the mechanical acquisition of foundational texts and linguistic syntax, it simultaneously correlates with a measurable decline in epistemic humility, patience, and the perceived sanctity of knowledge (Amanah). The study identifies a shift from a pedagogical model rooted in Suhbah (spiritual companionship) and Sanad (chain of transmission) to a consumerist, "user-interface" paradigm driven by algorithmic prompting. The paper concludes by proposing a "Hybrid Islamic Pedagogy" framework that ethically incorporates AI for technical drilling while fiercely preserving the indispensable role of the human Murabbi in cultivating Barakah (spiritual blessing) and ethical formation.

## Introduction

Historically, the Islamic pedagogical tradition has never viewed the transmission of knowledge (*Ilm*) merely as a utilitarian transfer of data. Classical scholars and modern theorists alike assert that Islamic education is intrinsically a teleological process aimed at cultivating the whole person—intellectually, morally, and spiritually (Al-Attas, 1979; Halstead, 2004; Waghid, 2011). Deeply influenced by the frameworks established by figures such as Abu Hamid Al-Ghazali (d. 1111) and Burhan al-Din Al-Zarnuji (d. 1223), traditional pedagogy conceptualizes learning as a sacred endeavor. At the center of this paradigm stands the teacher—not merely as a transmitter of information (*Mudaris*), but as a spiritual guide and moral exemplar (*Murabbi*). The relationship between the student and the teacher is defined by *Adab* (etiquette, reverence, and ethical comportment), which serves as the metaphysical prerequisite for the acquisition of sacred knowledge (Nasr, 1989; Hashim & Langgulung, 2008).

The advent of Artificial Intelligence (AI) teaching assistants and Large Language Models (LLMs) represents a profound disruption to this historical continuum (Williamson & Eynon, 2020; Holmes et al., 2021). The contemporary educational landscape is increasingly mediated by algorithms capable of instantaneously retrieving, synthesizing, and explaining complex theological, jurisprudential, and linguistic texts. While the operational efficiency of these technologies in democratizing access to information is undeniable, their structural design introduces an urgent research problem: Does the friction-free convenience of AI-mediated instruction erode the traditional virtues of respect, epistemic humility, and the conceptualization of knowledge as a sacred trust (*Amanah*)?

As Rahman (1982) warned regarding the modernization of Islamic intellectual traditions, structural changes to the medium of education inevitably alter its substance. This paper addresses this query by critically examining the ontological friction between classical Islamic epistemology and modern Human-AI Interaction (HAI). The primary objectives are threefold: (1) to analyze the theoretical dissonance between classical Islamic pedagogy and AI-mediated learning; (2) to empirically measure how reliance on AI alters a student's ethical comportment (*Adab*); and (3) to propose an ethical framework for integrating AI that safeguards the developmental prerequisites of Islamic education (Ihsan, 2024; Süs, 2023).

### 3. Theoretical Framework: The Sacredness of the Teacher vs. The User-Interface Model

To rigorously analyze the impact of AI on *Adab*, we must contrast the epistemological frameworks of classical Islamic pedagogy with the underlying philosophy of modern digital user interfaces.

#### Al-Ghazali's Model of the "Sacredness of the Teacher"

In his magnum opus, *Ihya 'Ulum al-Din* (The Revival of the Religious Sciences), Al-Ghazali (2015) delineates the rigorous prerequisites for acquiring sacred knowledge. Central to his thesis is the purification of the soul (*Tazkiyah*) and absolute submission to the guidance of the teacher. Al-Ghazali posits that just as a patient submits to a physician, a student must submit to the *Mu'allim*. This submission is not an exercise in authoritarianism, but a necessary humbling of the ego to create the internal capacity to receive knowledge (Moosa, 2005). Al-Zarnuji (2001), in *Ta'lim al-Muta'allim-Tariq at-Ta'allum* (Instruction of the Student: The Method of Learning), explicitly states that a student will neither attain knowledge nor benefit from it without respecting knowledge and venerating the teacher. This veneration cultivates *Barakah* (spiritual blessing), an intangible metaphysical quality that allows knowledge to transform the learner's character (Memon, 2011; Günther, 2006).

#### The Modern "User-Interface" Model

Conversely, the interaction paradigm of AI is rooted in user-centric design principles: convenience, speed, and absolute subservience of the tool to the user (Floridi & Cowls, 2019; Zuboff, 2019). AI teaching assistants operate on a "prompt-and-response" mechanism. In this model, the student transitions into a "user," and the acquisition of knowledge is demanded instantly via algorithmic prompting. The AI requires no ethical purification from the user; it yields data regardless of the user's spiritual state or intention (*Niyah*).

The theoretical dissonance is stark (see Table 1). In the Ghazalian model, the student approaches the source of knowledge with awe and patience, understanding that access to *'Ilm* is a privilege. In the AI User-Interface model, knowledge is commodified—reduced to a frictionless transaction where the user exercises absolute command over an infinitely patient digital entity. This shift risks replacing epistemic humility with technological entitlement (Biesta, 2015; Süß, 2023; Coeckelbergh, 2020).

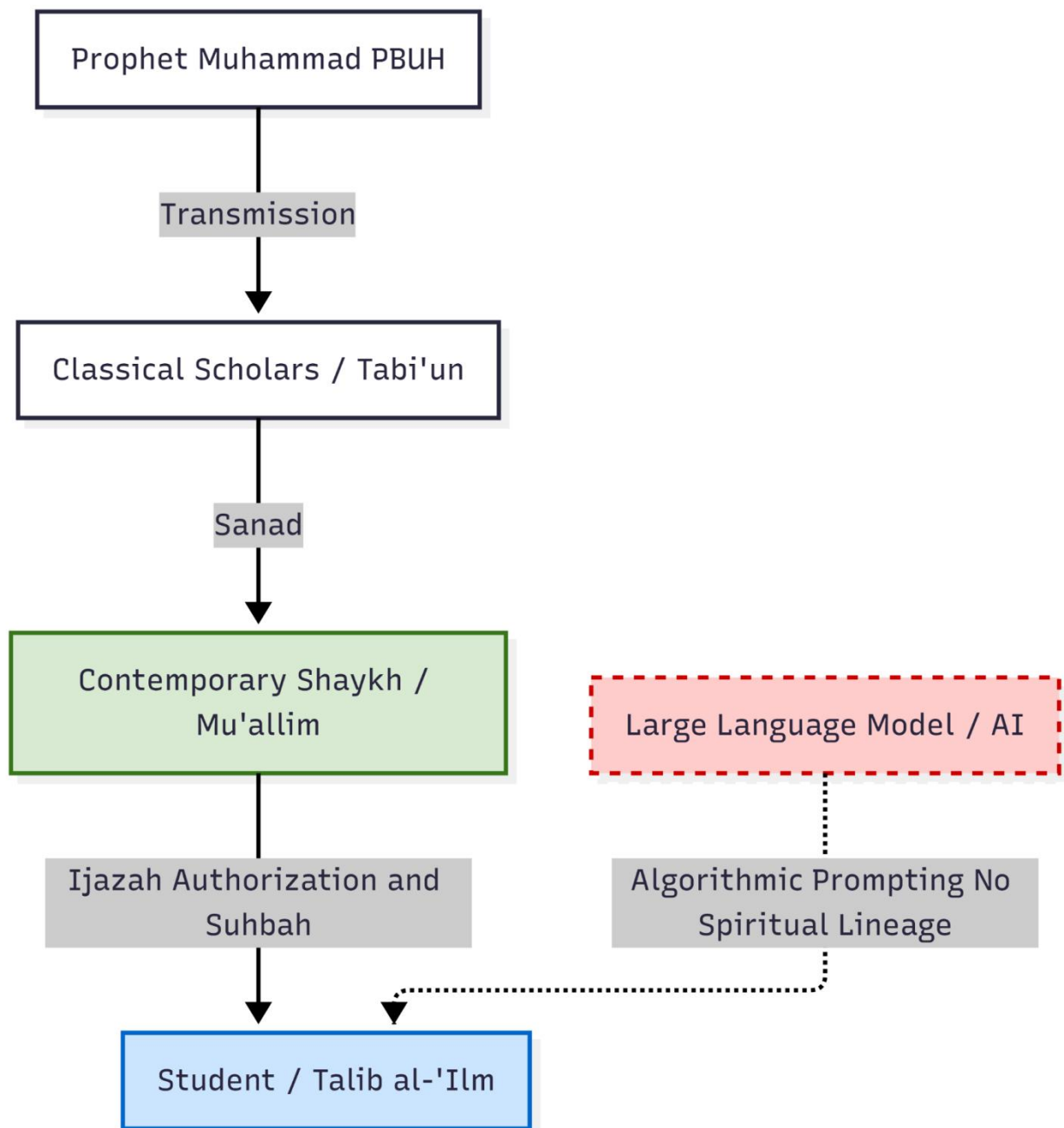
Table 1: *Ontological Comparison of Pedagogical Paradigms*

Feature	Classical Islamic Pedagogy (Mu'allim)	AI-Mediated Pedagogy (LLMs)
Epistemology	Knowledge as sacred trust (Amanah)	Knowledge as data commodity
Transmission Mechanism	Human chain (Sanad), Spiritual state (Hal)	Algorithmic retrieval, Black-box processing
Student Disposition	Epistemic humility, Patience (Riyadah)	Entitlement, Instant gratification
Nature of Interaction	Relational, Reverential (Adab)	Transactional, Prompt-driven command
Ultimate End Goal	Purification (Tazkiyah), Character refinement	Information synthesis, Cognitive mastery

#### 4. Literature Review

##### A. The Concept of Sanad in the Digital Age

The preservation of the Islamic intellectual tradition is uniquely bound to the concept of *Sanad* (the chain of human transmission). Classical epistemology dictates that sacred knowledge must trace an unbroken lineage back to the Prophet Muhammad (PBUH) (Brown, 2007). Modern EdTech scholars have critiqued AI as an epistemological "black box" that obscures the origins of its data (Selwyn, 2019; Knox, 2020). When a student learns Islamic jurisprudence (*Fiqh*) from an AI, the algorithmic output represents an epistemic rupture. As Zawawi (2022) notes, the algorithm lacks a soul, a lineage, and moral accountability.



*Figure 1: The Epistemic Rupture of Sanad via AI Intermediation.*

The literature suggests that learning devoid of *Sanad* risks severing the student from the historical and spiritual community (*Ummah*) of scholars, transforming a living, breathing tradition into a static, albeit highly accessible, repository of text strings (Williamson & Eynon, 2020; Peters, 2023).

#### **B. The Psychodynamics of AI Interaction and *Riyadah***

Islamic ethical formation relies heavily on *Riyadah* (spiritual training and habituation). The physical presence of a teacher imposes necessary social friction: the student must wait their

turn, carefully formulate their questions (*Su'al*), fear the teacher's reprimand, and learn to endure human imperfections (Elias, 1999). HAI research highlights that interacting with AI eliminates this social friction (Turkle, 2011; Danaher, 2019; Cave et al., 2019). An AI can be interrupted, commanded aggressively, and dismissed without consequence. When students habituate themselves to the subservient nature of AI, they engage in a reverse-*Riyadah*—cultivating habits of impatience and conversational dominance (Awang et al., 2021). The profound concern is that these micro-habits, formed in the digital realm, will subsequently corrupt the student's interaction with human scholars.

### C. AI Anthropomorphism in Religious Contexts

The tendency of users to project human qualities onto AI (anthropomorphism) is a well-documented phenomenon (Weizenbaum, 1976; Proudfoot, 2011). In a religious context, this cognitive bias becomes deeply problematic. Generative AI models are engineered to simulate authoritative, coherent, and empathetic voices (Bostrom & Yudkowsky, 2014; Gunkel, 2012). When an AI provides a highly articulate, culturally nuanced explanation of a Qur'anic verse, the student may subconsciously elevate the system to the status of a scholar (*'Alim*). However, the AI possesses no actual comprehension, moral agency, or *Taqwa* (God-consciousness). Bin Umar (2023) argues that treating a probabilistic text-generator as a source of *Fatwa* degrades the sacredness of the scholarly mantle and opens the door to algorithmic distortions of theology (Bunt, 2018).

## 5. Methodology

To empirically investigate the theoretical concerns outlined above, this study employed a mixed-methods research design, triangulating quantitative psychometric data with qualitative phenomenological interviews.

### Participants and Setting

The study engaged a purposive sample of N=150 adult students (ages 18-35) engaged in foundational Islamic studies (Arabic syntax, *Aqidah*, and basic *Fiqh*). Participants were divided into two cohorts:

- **Cohort A (Traditional):** 75 students enrolled in an in-person, traditional seminary (*Madrassa*) relying exclusively on human teachers (*Mu'allim*) and classical texts.

- **Cohort B (AI-Assisted):** 75 students enrolled in a modern, self-paced online Islamic academy that heavily utilized a customized generative AI teaching assistant ("DeenBot") for tutoring, translation, and Q&A, supplemented by weekly human-led webinars.

### Instruments and Procedures

1. **Quantitative Measures:** Participants completed a 40-item Likert-scale survey at the beginning and end of a 6-month academic term. The survey utilized a newly developed instrument: the **Islamic Epistemic Humility and Adab Scale (IEHAS)**. This tool measured variables such as patience in seeking answers, respect for scholarly boundaries, and transactional vs. relational views of knowledge. The scale demonstrated high internal consistency during pilot testing (Cronbach's  $\alpha = .87$ ). Standardized assessments of mechanical mastery (e.g., Arabic grammar retention) were also administered.
2. **Qualitative Measures:** Semi-structured interviews were conducted with 20 randomly selected students from each cohort, and 5 human instructors from the AI-assisted academy. Questions focused on the subjective experience of *Suhbah* (companionship) and their emotional disposition toward AI versus human teachers. Transcripts were analyzed using Interpretative Phenomenological Analysis (IPA) to extract core experiential themes.

## 6. Results

### Quantitative Findings

An independent-samples t-test was conducted to compare the development of *Adab* and epistemic humility between the two cohorts over six months. The results revealed a stark divergence between mechanical competency and ethical development.

Table 2: *Summary of IEHAS Metrics and Mechanical Mastery (N=150)*

Construct (IEHAS Metric / 5-pt scale)	Cohort A Pre-test	Cohort A Post-test	Cohort B Pre-test	Cohort B Post-test	p-value
Patience in Knowledge Acquisition	4.1	4.3	4.2	3.1	$p < .01$

Reverence for Teacher Boundaries	4.5	4.6	4.4	3.2	$p < .01$
Transactional View of Knowledge	2.1	1.9	2.2	4.0	$p <$
Mechanical Syntax Mastery (Score)	72%	75%	71%	89%	$p < .01$

- **Mechanical Mastery:** Cohort B (AI-Assisted) demonstrated a statistically significant advantage in rote mechanical tasks ( $p < .01$ ). Surveys indicated an 88% satisfaction rate with the AI for immediate fact-retrieval.
- **Decline in Epistemic Humility:** Conversely, Cohort B showed a marked decrease in "Patience in Knowledge Acquisition" and "Reverence for Boundaries." Furthermore, 65% of Cohort B students strongly agreed with the statement, "I expect immediate clarification when I do not understand a text," compared to only 22% in Cohort A.

### Qualitative Findings

The phenomenological interviews analyzed via IPA provided profound insights into the "convenience vs. connection" paradox.

- **The Vending Machine Approach to 'Ilm:** Students in the AI cohort frequently described learning in transactional terms. One student noted, "*Whenever I don't understand a ruling in Taharah, I just prompt it, and I get the answer in seconds. But... I don't feel any weight to the knowledge. It feels like getting a soda from a vending machine.*"
- **The Loss of Suhbah and Barakah:** A student from the traditional cohort stated, "*When my Shaykh corrects my recitation, I see the tears in his eyes when he mentions the Prophet (PBUH). That teaches me more than the grammar itself. The rule enters my mind, but his state (Hal) enters my heart.*"

- **Instructor Observations:** Human teachers in the AI academy reported a shift in student interactions. One instructor lamented, "*The students now treat me like an organic version of the AI. They don't greet me with the traditional Adab; they jump straight into demanding complex answers. The AI has trained them to view hesitation as a glitch, not as scholarly piety.*"

## 7. Discussion

The findings of this study substantiate the profound theoretical concerns regarding the ontological shift from *Mu'allim* to AI. The data reveals that while AI accelerates the assimilation of raw data, it actively subverts the foundational principles of *Adab al-Talib* (Hashim & Langgulung, 2008; Süss, 2023; Al-Zarnuji, 2001).

First, the integration of AI encourages a consumerist attitude toward sacred knowledge. In classical Islamic epistemology, knowledge is an *Amanah*—a sacred trust requiring moral fortitude. The travel (*Rihla*) and patience required to learn from a master were not inefficiencies to be solved; they were crucibles in which the student's character was forged (Al-Ghazali, 2015). By rendering the acquisition of text entirely frictionless, AI strips away the necessary *Riyadah* (spiritual training) (Elias, 1999).

Secondly, the psychodynamics of "prompting" violate the adab of *Su'al* (asking questions). Prompting an AI is an exercise in command, dictating parameters and tone. As evidenced by the qualitative interviews and aligned with the warnings of Holmes et al. (2021) and Turkle (2011), this habituation structurally alters the student's disposition, eroding the *Mu'allim-Tilmiz* bond. The human teacher is increasingly viewed not as a *Murabbi* whose presence imparts *Barakah*, but as a fallible, inefficient flesh-and-blood search engine.

Finally, the disruption of *Sanad* cannot be overstated. AI cannot confer authorization (*Ijazah*) because it cannot bear witness to the student's moral character; it only verifies algorithmic data alignment (Zawawi, 2022). Thus, AI-mediated learning risks producing a generation possessing encyclopedic knowledge but lacking the spiritual lineage that historically safeguarded the tradition from extremism and misinterpretation (Brown, 2007; Bunt, 2018).

## 8. Recommendations & Conclusion: Toward a Hybrid Pedagogy

The integration of AI in education is an irreversible reality. The challenge for Islamic educational institutions is to avoid Luddite rejection while developing a rigorous framework of **Hybrid Islamic Pedagogy** that ethically partitions the learning process (Ihsan, 2024).

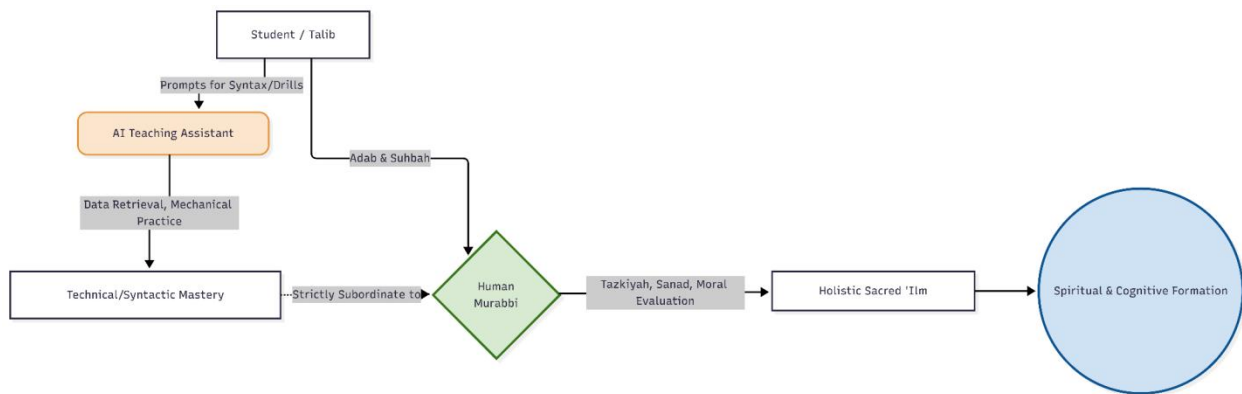


Figure 2: Framework for Hybrid Islamic Pedagogy.

We propose the following framework (Figure 2):

1. **Instrumentalization over Formative Authority:** AI must be strictly siloed as a subordinate, instrumental tool for mechanical drills (e.g., memorization testing, syntax parsing). It must never be positioned as a formative authority capable of offering *Tazkiyah* or issuing *Fatawa* (Coeckelbergh, 2020).
2. **Mandatory Adab Curricula in Digital Spaces:** Institutions must preface AI tool usage with robust coursework on the ethics of digital learning. Students must explicitly differentiate between computational data retrieval and the acquisition of sacred *'Ilm* (Awang et al., 2021).
3. **Preservation of the Murabbi:** Institutions must intentionally design human friction back into the system (Memon, 2011). The human teacher must be elevated and protected as the exclusive source of *Suhbah* and moral evaluation. AI can grade the syntax of an essay, but only a human teacher can evaluate the spiritual sincerity of the student.

In conclusion, the uncritical adoption of AI teaching assistants threatens to hollow out the soul of Islamic pedagogy. If learning is reduced to a user-interface model of immediate gratification, we risk producing scholars who are intellectually formidable but bereft of the *Adab*, humility, and *Barakah* that define the Islamic intellectual tradition. The preservation of the sacredness of learning demands that we recognize AI for what it is: a brilliant, soulless mirror of human data, wholly incapable of nurturing the human spirit. Within this framework, the transmission of knowledge (*Nur*) remains fundamentally an embodied, relational phenomenon—one that requires the somatic and spiritual presence of human actors, rather than mere algorithmic exchange.

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