

# Between Code and Creed: Islamic Ethical In-Betweenness on AI in Indonesia

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## [Extended] Abstract

“Artificial Intelligence (AI),” echoed through the speakers of the Salman Mosque in Bandung during the *Jumat* (Friday) sermon, “is like *api* (fire). *Api* can cook our food or burn our house; it depends on how we control it. God gave humans the wisdom to use *api* well. AI is like that too: a new *api*. We must use our wisdom and our ethics to control it, so it brings light, not destruction.” That line, delivered by the Indonesian imam, stayed with me. It wasn’t just a metaphor. It was a theology of technology, capturing an everyday philosophy that AI, like *api*, is always moral, always local. As Suchman (2007) and Dourish (2004) remind us, ethical interpretation of technologies is shaped by situated histories, local institutions, and moral vocabularies.

Mainstream AI ethics frameworks, however, such as the European Commission’s *Ethics Guidelines for Trustworthy AI* (AI-HLEG 2019), the OECD *Principles on AI* (OECD 2019), UNESCO’s *Recommendation on the Ethics of Artificial Intelligence* (Ad Hoc Expert Group 2021), and the *ASEAN Guide on AI Governance and Ethics* (ASEAN 2024), tend to assume a secular baseline of ethics. While this convergence offers global coherence (Sardar 1989; Jobin, Ienca, and Vayena 2019), it sidelines religious frameworks, which remain central to ethical reasoning in many societies (Srinivasan 2018; Rainie, Anderson, and Vogels 2021).

Growing efforts to diversify AI ethics include the Vatican’s “Rome Call” (Pontifical Academy for Life 2020) and scholarship invoking Ubuntu (Van Norren 2021), Jewish theology (Bor 2021), Islamic normative theory (Raquib et al. 2022). In particular, Raquib et al. offers a prescriptive framework grounded in *maqasid al-shari’ah* and virtue ethics, while Singler (2024), instead, maps a global typology of rejection, adoption, and adaptation across multiple religions. My study draws from both, but moves beyond typology to examine how Indonesian Muslims negotiate AI ethics in lived practice

through *ethical in-betweenness*: a dynamic, situated mode of reasoning that shifts between universalisms, theological caution, and techno-nationalist aspirations without collapsing into any single register.

Indonesia presents a compelling case, because unlike many Muslim-majority societies with centralized religious authority, its Islamic ethics are shaped by historical pluralism, community-based institutions, and localized interpretation, influenced by centuries of trade, Sufi networks, and reform movements (Hefner 2011). Local organizations such as Nahdlatul Ulama (NU) and Muhammadiyah issue *fatwas* (non-binding rulings but socially influential) on AI that are grounded in adaptive traditions (Van Bruinessen 1996), reflecting Indonesia’s distinct ethical pluralism and responsiveness to technological change.

Such adaptability builds on a long lineage of Muslim engagement with science and technology from Al-Khwarizmi’s (c. 780–850) advanced algebra and algorithms (Berggren 1985); to Ibn Sina’s (980–1037) medical ethics and natural philosophy (Gutas 2014); and Al-Jazari’s (1136–1206) programmable automata and hydraulic machines (Hill 2012). Remembering this ‘Golden Age’ reframes AI not as a rupture from Islamic tradition but as a potential continuation.

My research draws on 14 months of ethnographic fieldwork (2022–2024) in Bandung, Yogyakarta, Jakarta, and West Sumatra, combining participant observation, semi-structured interviews, and focus groups with Islamic scholars, computer science educators and students, entrepreneurs, policymakers, and lay Muslims using AI-driven services. Guided by grounded theory (Glaser & Strauss 2017), open and axial coding yielded three thematic categories: (1) Religious Neutrality in AI Education, (2) Theological Boundaries and Concerns, and (3) Embracing AI for National Progress. I present each through ethnographic vignettes—though, in this extended abstract,

sketched rather than in full—showing how AI is debated as both a technical system and a moral question in universities, mosques, and cafés.

In the faculty lounge at *Institut Teknologi Bandung* (ITB), computer science lecturers framed AI ethics as universal and secular, echoing Sardar's (1989) 'illusion of neutrality' and Jobin et al.'s (2019) 'ethical convergence.' For instance, senior lecturer *Pak* (Sir) Seno, who also advises government AI policy, stated: "A good action is good, a harmful system is harmful. It doesn't matter if it comes from religion." Similarly, *Bu* (Ma'am) Asnu, who had been trained abroad, preferred fairness, transparency, and human rights as "more universal" measures, seeing religious traditions as potentially bias-reinforcing. While Raquib et al. (2022) advocates rooting AI ethics in Islamic principles, these educators (both devout Muslims) maintained a clear separation between faith and pedagogy. In Singler's (2024) terms, what is 'adopted' here is a universalist ethics, and what is 'rejected' is religion as a formal source—raising the question of whether such inclusivity comes at the cost of moral diversity. Yet their stance also reflects an *ethical in-betweenness*: religion remains personally meaningful but is deliberately bracketed from technical training, enabling them to move between private belief and globalized professional norms without fully abandoning either.

Meanwhile, across the street in the cool prayer halls of Salman Mosque, its director *kang* (older 'brother') Rusli offers a counterpole: religion and AI can and should be in dialogue, but on theological terms. Warning that AI risks becoming a "false idol," he stressed that machines "cannot possess *rūh* (spirit) or *niyyah* (ethical intention), and therefore cannot bear moral or spiritual accountability." This conviction aligns with NU's fatwa prohibiting Muslims from seeking religious rulings from AI (NU Online 2023) and echoes Malaysia's controversy over its "AI imams" (Technave 2025). But, while this position resonates with Singler's (2024) 'rejection' model, it is not outright technophobia; *Kang* Rusli's stance exemplifies *ethical in-betweenness*: neither rejecting AI outright nor embracing it uncritically, but practicing *wasatiyyah* (moderation) on a case-by-case discernment within moral and metaphysical limits.

Further down the street, in Bandung's student cafés, young Indonesians often framed AI adoption as both pragmatic and patriotic, aligning with the vision of "Golden Indonesia 2045" and the national AI Strategy (*Stranas Kecerdasan Artifisial*). *Mbak* (Miss) Sri, a psychology student, shifted from initial 'rejection' to pragmatic 'adoption'—seeing technological progress as serving *maṣlahah* (public good) while keeping religion a private matter. By contrast, *mbak* Cinta, an engineering student at an Islamic university, integrates Qur'anic ethics and *kitab kuning* reasoning into AI projects, arguing that Islamic epistemology anticipates principles of ethical design

found in today's technology. This perspective aligns with Raquib et al.'s (2022) call to embed technology in Islamic moral objectives, while challenging Singler's (2024) 'adaptation' model by showing that innovation can emerge from established ethical traditions. Both embody *ethical in-betweenness*, but navigate it differently in ways that preserve elements of each: Sri separates faith from public tech ethics while Cinta integrates it, both for academic and national progression.

In summary, these cases show how Muslim Indonesians move between global universalisms, Islamic vocabularies, and techno-nationalist aims without collapsing them into one frame. This dynamic also resonates with an anthropological lineage tracing the "ethics of in-betweenness" (Mittermaier 2010) from Islamic concepts of *barzakh* (liminal space) into a broader analytic for navigating boundaries—human/nonhuman, seen/unseen, present/future. Within this frame, Islamic concepts such as *wasatiyyah*, *maṣlahah*, and *niyyah* often lead to outcomes similar to secular principles (e.g. fairness) but grounded in a different moral grammar. This deepens Raquib et al.'s (2022) call to embed Islamic moral objectives in governance, and extends Singler's (2024) typology by showing that 'adaptation' is not one-way toward secular norms, but can also be reframed as AI itself adapting to Islamic epistemologies.

Yet, caution is warranted. Theological claims such as the assertion that AI cannot possess *niyyah*, are presented as voiced by my interlocutors, yet they remain open to contestation. Indonesia's pluralist institutions and localized interpretation make its configuration distinctive, and Islamic ethics is not the only framework capable of producing policy that is just—human rights, indigenous knowledge, and other traditions have also done so. While the embeddedness of Islamic ethics lends it moral legitimacy in Indonesia, it can also, in other contexts and histories, justify exclusion or hierarchy under the guise of moral protection. The value of Islamic ethics here lies in complementarity, not replacement. Treating it as a universal model risks reproducing the same normative impositions that mainstream AI ethics is critiqued for.

Ultimately, my research urges policymakers to broaden "AI ethics" to include contexts where *code and creed* are in constant conversation, without being reduced to either. As such, *ethical in-betweenness* provides both an analytic lens for researchers and a normative tool for policymakers seeking to design AI governance that is responsive to diverse moral grammars. In closing, I return to the fire metaphor: AI, like *api*, can nourish or destroy. But controlling it requires more than technical skill—it requires wisdom. That wisdom, as my interlocutors remind us, may come from the university, the mosque, or the café—but it only works when we listen to all three.

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## Ethics and Positionality

Ethical clearance was obtained from Leiden University's Institutional Review Board (IRB), and all research adhered to anthropological best practices, including respect, confidentiality, and reflexivity. All interviews were conducted with informed consent, and pseudonyms (e.g., Asnu) are used for all interlocutors (except for Rusli) who generously shared their time, experiences, and perspectives.

As a non-Muslim female researcher of Indonesian heritage raised in the diaspora, I approached this study with both an insider's cultural empathy and an outsider's academic lens. I engaged in ongoing reflexive practice, maintaining analytic memos to examine my own assumptions and positionality. Many participants expressed appreciation that their theological concerns were being taken seriously within a global AI ethics discourse that often sidelines religion. Throughout, I sought to build trust, minimize imbalances, and honor my interlocutors' voices.

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