Beyond Inevitability: AI Tutoring and Educational Equity in Indonesia

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ABSTRACT

Digital education platforms in Indonesia have begun introducing Artificial Intelligence (AI) as a "tutor." Initiatives such as *Airis* by *Ruangguru* exemplify this trend, offering AI-driven learning assistance in the informal education sector. Although currently these tools function mainly as supplements, the growing presence of AI tools in classroom calls for critical examination of whether policymakers and educators should incentivize the use of AI for efficiency or prioritize caution considering unresolved challenges surrounding educational quality, equity, and ethical safeguards. This research examines whether Indonesia's policy-driven integration of AI tools in education aligns with the structural reforms needed to protect children's rights and educational equity.

Indonesia's national AI roadmap, *Buku Putih Peta Jalan Kecerdasan Artifisial Nasional* positions AI as a potential solution to systemic challenges such as a centralized curriculum, unequal urban-rural access, and uneven teacher capacity. Flagship initiatives like *Sekolah Rakyat* are framed as vehicles for equitable education delivery, where AI-driven talent mapping, adaptive learning systems, and real-time monitoring promise to personalize pedagogy and improve resource allocation. However, without parallel investment in teacher training and curricular reform, such ambitions risk overstating what technology alone can achieve. AI's effectiveness depends on addressing long-standing structural inequalities, not merely automating around them.

Indonesia's case illustrates both the promise and the perils of state-driven AI adoption. National visions present AI as a driver of inclusive growth, but without necessary work of structural reform, it may deepen educational inequity and potentially reversing the digital divide. Underprivileged children may become disproportionately reliant on AI-mediated instruction, while wealthier peers retain access to human teachers. This also raises concerns around data exploitation and commercialization, as students' data become a source of profit for private corporations. Substituting human instruction with AI risks undermining children's rights to quality education and contradicts the very goals of inclusive human capital development.

This study uses a multi-method qualitative approach. First, it conducts a policy and discourse analysis of key government documents, including *Buku Putih Peta Jalan Kecerdasan Artifisial* and Indonesia's current primary and secondary curriculum guidelines, and EdTech campaigns to understand how AI is framed in terms of "inevitability", "human capital", and "equity". Second, it includes semi-structured interviews with Indonesian teachers across urban/rural and public/private schools, policymakers, and EdTech representatives to explore ground-level perceptions, experiences, and expectations. Lastly, it draws on children's rights frameworks, such as Convention on the Rights of the Child and Law 23/2014 on Child Protection, to evaluate legal and ethical tensions between AI-based instruction and the right to quality education.

Preliminary findings indicate that many Indonesian teachers express both curiosity and concern about AI in classrooms. While some see AI as a way to fill resource gaps, others worry about reduced teacher autonomy and the growing influence of commercial platforms in shaping pedagogy. Policymakers recognize AI's potential but admit that guidance and regulatory frameworks are underdeveloped. Notably, both groups emphasize the need for culturally relevant approaches to AI that reflect Indonesian educational values rather than imported corporate models.

This research is urgent and timely. It interrogates whose values and visions are guiding AI adoption in Indonesian classrooms, and most importantly assesses the broader implications for equity, ethics, and public education. Rather than rejecting AI altogether, it advocates for its cautious and context-sensitive

integration, one that resists technological determinism and prioritizes human dignity, social justice, and children's rights.

Building on related works, such as Holmes (2021) from University College London, which emphasized the risks of uncritical adoption of AI in classrooms, this study proposes a two-level framework for responsible AI integration. From a top-down perspective, robust regulatory mechanisms are needed to ensure AI serves the public good. From the bottom-up, strengthening AI literacy among teachers and students will empower informed, critical engagement with these tools. Acknowledging the commercial agendas behind AI deployment is also essential to protecting education as a civic and moral endeavor, rather than reducing it to a market commodity.

Keywords: *AI in Education, AI Ethics, AI Policy, Children's Rights, Digital Divide, Indonesian Education.*

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