

## **AI in Education: A Paradigm Shift through Agency Theory and Checklists**

The dawn of ChatGPT heralded an era where AI's influence penetrated deeper into the realms of education. The central question that has emerged, as AI's role becomes more pronounced, is whether it should be perceived merely as a sophisticated tool or an agent with responsibilities akin to a human teacher. By intertwining principles from agency theory with the proven efficacy of checklists from fields like aviation and medicine, we can craft a robust framework for AI's role in education.

ChatGPT, with its user base exceeding 100 million, has not only set technical benchmarks but also reshaped our perception of AI in educational contexts. In a world where parents view teachers as agents responsible for their child's education, it's not far-fetched to envision AI in a similar light. However, this shift from tool to agent brings forth complexities rooted in the potential misalignment of goals between the principal (parents or educational institutions) and the agent (AI or teachers).

Drawing parallels from other disciplines, checklists have been instrumental in fields like aviation and medicine, acting as bulwarks against human errors. When transposed to the educational landscape, especially in low-income or remote settings, these checklists can provide a structured approach to evaluate teachers. By adapting these checklists for AI, we can ensure that its implementation remains ethical, effective, and in alignment with educational objectives.

The principles of agency theory, with its roots in economics, provide insights into the nuanced relationship between principals and agents. By viewing AI as an agent, we underscore the need for alignment between AI's objectives and the educational goals set by the principal. This perspective necessitates checks and balances to ensure that AI, while efficient, remains a tool that complements human educators rather than replacing them.

Projecting into the future, by 2034, the global trajectory of AI in education is set to be shaped by a confluence of innovation, production, and regulation. The United States, leading in Large Language Models, China's endeavors into humanoid AI robots, and Europe's regulatory frameworks all underscore the varied approaches nations are taking. These trajectories, while technologically driven, are also reflective of geopolitical ambitions and societal values.

Yet, amidst this technological whirlwind, we must anchor ourselves to the foundational essence of education: shaping the minds and souls of the next generation. AI's integration should be approached judiciously, ensuring it augments rather than dilutes the human-centric ethos of teaching. The agency theory-rooted checklists serve as our compass in this journey, ensuring pedagogical soundness, ethical considerations, and the overall welfare of students remain paramount.

In sum, the evolving landscape of education, enriched by AI, beckons us with challenges and opportunities. By grounding our approach in time-tested theories and methodologies, we can chart a course that ensures AI's role in education is both impactful and ethically sound. The vision is not of an AI-dominated future but one where AI and humanity collaboratively strive for a brighter, more informed world.