The Default Effect in AI Teaching Methods Across Cultures

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Abstract:

The widespread adoption of AI language models in education introduces a critical yet unexplored phenomenon: the default teaching methods inherently embedded in these systems. This study examines the pedagogical approaches automatically suggested by prominent AI models (ChatGPT, Claude, and Perplexity) when prompted for teaching assistance, revealing a consistent pattern of U.S.-centric educational methodologies. Employing a novel dual-methodology approach, we first developed an automated prompt iteration model that systematically analyzed AI responses across 135 teaching scenarios, using natural language processing to identify recurring pedagogical patterns and cultural markers. This was complemented by 80 in-depth, semi-structured interviews with educators across twelve countries spanning four continents (China, Japan, Germany, Spain, Italy, UK, USA, Canada, Mexico, Peru, Brazil, and South Africa), providing rich contextual insights into how these AI defaults manifest in diverse educational settings. Our preliminary findings demonstrate that without explicit cultural contextualization, these AI models predominantly suggest teaching strategies aligned with U.S. educational paradigms, including emphasis on individual achievement, direct question-answer formats, and project-based learning. Even when prompted with specific cultural contexts, the underlying U.S.-centric approaches remained present in 78% of AI suggestions. This homogenization of teaching methods through AI defaults raises significant implications for global education, potentially diminishing pedagogical diversity and traditional cultural approaches to learning. Our findings highlight the urgent need to examine and address the cultural assumptions embedded in AI teaching tools before their widespread implementation in diverse educational settings.