

Modeling Teachers' Willingness and Objection to Agentic AI: An AIDUA-Based Appraisal Perspective

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Abstract:

Agentic AI is shifting educational AI from “advice” to “action” by enabling multi-step task execution and cross-tool coordination, raising governance and accountability concerns beyond usefulness and ease of use. Using the Artificially Intelligent Device Use Acceptance (AIDUA) model, this study examines teachers staged appraisals of agentic AI for teaching. A cross-sectional survey of 260 teachers across school levels tests whether primary appraisals (social influence, hedonic motivation, anthropomorphism) shape secondary appraisals (performance expectancy, effort expectancy), how these expectancies affect emotions, and how emotions relate to willingness to use and objection. Results support a cognition–emotion–intention chain: favorable primary appraisals strengthen expectancy beliefs; stronger expectancies are linked to more positive emotions; and positive emotions markedly increase willingness to adopt agentic AI. However, emotions do not significantly reduce objections, indicating that willingness and resistance can coexist and may stem from different mechanisms. The study extends teacher AI adoption research beyond purely rational models and underscores the need to address accountability and risk concerns for sustainable, responsible adoption.

Keywords:

Agentic AI, Teacher adoption, AIDUA model, Emotional responses, Willingness to use.