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Trusting the AI Machine: How Trust Transfer Shapes Students' Acceptance Intention of Generative AI as a Virtual Learning Assistant in Higher Education?

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Abstract

The increasing integration of artificial intelligence (AI) in education has introduced new opportunities for enhancing learning experiences, particularly through generative AI

chatbots like ChatGPT. While these tools hold potential for supporting students, user trust remains a critical factor influencing adoption. This study examines the Trust Transfer process in the acceptance of generative AI as a learning assistant among undergraduate students.

A quantitative study was conducted by distributing a questionnaire to Introductory Statistics course participants at Universitas Indonesia, yielded 480 valid questionnaire. The questionnaires measuring key constructs such as trust in AI, trust in AI vendors, trust in AI chatbot, social influence, reputation, attitude, anxiety, user interface, problem solving, and adoption intention. The collected data were analyzed using PLS-SEM to assess relationships between trust-related variables.

The results indicate that trust in AI significantly influences trust in generative AI and adoption intention. Additionally, factors such as attitude toward AI, social influence, user interface, and problem solving quality play significant roles in shaping trust in generative AI and adoption decisions. Notably, AI anxiety and trust in AI vendor did not significantly impact trust in generative AI.

These findings provide both theoretical and practical implications. Theoretically, the study contributes to Trust Transfer Theory and AI adoption research by demonstrating how trust dynamics operate in AI-powered educational tools. Practically, it offers insights for educators and AI developers to design learning tools that foster trust, emphasizing factors such as chatbot quality and social endorsement.

Keywords: Artificial Intelligence, Generative AI, ChatGPT, Trust Transfer, Adoption, Virtual Learning Assistants, Education Technology