

IRGF Final Report

Lauren Dwyer - #104245

Project Title: Shaping Agency: The Effect of User Communication Styles on Autonomy and Decision Support in Intelligent Conversation Agent Interactions

1.1 Project Summary

This pilot study used a mixed-methods design with 10 participants to explore the use of Intelligent Conversational Agents in everyday decision-making and the impact of communication style on user autonomy. These findings reveal a trust-use paradox in which users maintain a strong sense of agency while relying on AI outputs they hold with moderate skepticism, a pattern that is not fully explained by existing technology adoption models. The results informed a preliminary framework for adaptive ICA design centered on stakeholder sensitivity, style adaptation, response calibration, and epistemic transparency, pointing to the need for theoretical frameworks that move beyond individual trust attitudes to examine how communicative and design features shape reliance in AI-mediated decision contexts.

1.2 Student involvement

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1.3 Dissemination and Knowledge Mobilization

Dwyer, L. (2025). Shaping Agency: User Communication Styles, Autonomy and Decision Support in AI Interactions. Paper presented at Congress 2025 Meeting of the Canadian Communication Association. Shaping Agency: User Communication Styles, Perceived Autonomy, and a Trust-Use Paradox in AI-Assisted Decision-Making, Brief Research Report currently under review at *Frontiers in Artificial Intelligence - AI for Human Learning and Behavior Change*.

1.4 Project Outcomes and Impacts

The central finding from this pilot study is the identification of a trust-use paradox in AI-assisted decision-making: participants maintained a strong sense of personal agency while simultaneously relying on ICA outputs they held with moderate skepticism. Quantitatively, perceived autonomy increased post-interaction across both tasks, and trust in ICA recommendations either increased or was maintained for 9 of 10 participants despite entering the study with moderate skepticism, with only 1 participant seeking independent verification. These findings are not accounted for by existing technology adoption models and contribute a new theoretical concept to the human-AI interaction literature with implications for both ICA design and AI governance. The study also produced a preliminary framework for adaptive ICA design built around four principles: stakeholder sensitivity, style adaptation, response calibration, and epistemic transparency. These principles are grounded in self-determination theory and human-centered interaction design and provide a

foundation for future applied research. An undergraduate student research assistant was supported by this funding and received hands-on training in mixed-methods research, including qualitative thematic analysis and quantitative survey design, contributing to the development of an emerging scholar at Mount Royal University. The student research assistant additionally supported data collection, analysis, and manuscript preparation, and is recognized as a co-author on the resulting publication submission. Dissemination outcomes included a paper presented at the Canadian Communication Association's annual conference at Congress 2025, and a brief research report currently under review at *Frontiers in Artificial Intelligence*. The unexpected findings from this pilot have also directly informed a SSHRC Insight Development Grant application.