An Application of Design-Based Implementation Research to Develop a Framework to Support a Community of AI-experience Creators

Mak, J., Li, S., & Christhilf, K.

Extended Abstract

Generative artificial intelligence (GenAI) has rapidly shifted the ways in which we communicate, interact, teach, study, and learn. The shift from being a consumer to a creator of GenAI experiences, however, is a tremendous transformation, whether teachers creating a bot for students to engage with to learn German (Reves & Bahtchevanova, 2025) or students building a customized bot to engage with their course content (Pearce et al., 2023). Our work with our institution's CreateAI Builder, a platform that allows faculty, staff and students to design and deploy customized bots has transformed the educational landscape and unleashed innovation in ways never previously imaginable. This led us to ask: What supports do creators need to create ethical, learner-centered AI-X tools with pedagogical value? How can we build a framework and accompanying tools to provide these supports? In this paper, we describe our design-based iterative research study and the participatory, co-design approach to develop and iteratively refine an AI-X Framework that integrates Principled Innovation (PI; Arizona State University, n.d.) and learning engineering (LE; Goodell & Kolodner, 2023) into three interconnected tools that support different stages of AI-X development. We gathered input from a set of design team working sessions regarding key ethical, pedagogical, and design considerations regarding AI-X. We then conducted in-person, synchronous, and asynchronous academic-year feedback sessions that drew on representation from the entire institution across colleges and departments to iteratively refine the AI-X Framework. The project integrates two anchoring bodies of work: PI (Arizona State University, n.d.) and LE (Goodell & Kolodner, 2023).

Acknowledgments

References

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