Media Mentor AI: How a SCAMPER-guided AI assistant is helping reimagine media literacy learning

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AI | Constructionism | Critical media literacy education | learning engineering

Extended Abstract

Introduction

Recent studies highlight a continued widespread struggle across populations to critically consume media content (Nygren & Guath, 2019; Halpern, 2024), alongside strong international recommendations to integrate critical thinking into media literacy education (UNESCO, 2025; Hulin et al., 2025). These findings point to a persistent gap between the need for critical media literacy (CML) skills and the availability of scalable, learner-centered instructional supports.

Research Objectives and Design

The study has two primary objectives: (1) to develop a human-centered interactive system that helps learners decode media messages (Hall, 2013) and identify common media red flags (persuasion, framing, bias, sensationalism, and misinformation), and (2) to support ethical, audience-centric reconstruction of media headlines.

The study design explores a custom interactive AI assistant designed to address this gap through critical media deconstruction and scaffolded headline analysis using the SCAMPER method. The project aims to explore the feasibility of a theory-driven AI tool that supports learners in critically decoding and ethically reconstructing media messages. The SCAMPER method was selected for its alignment with design-thinking principles, particularly end-user-centered perspective-taking (Pei & Becker, 2025), and for providing a structured, scaffolded approach to critical analysis. These affordances enabled the development of a low-effort, high-impact baseline prototype suitable for early-stage validation.

Learning Engineering Process

Research is ongoing and currently nested within the Implementation and Investigation cycles of the broad Learning Engineering Process (Goodell et al, 2023). Prior phases included literature review and problem definition, prototype and system prompt development, and two pilot studies with senior undergraduate students at the Cronkite School, followed by system prompt refinements based on learner feedback.

As the project matures, the nested learning engineering cycles (Craig et al., 2025) shift from optimizing SCAMPER steps to engineering and validating a design-thinking framework tailored to critical media literacy. SCAMPER remains useful as a baseline condition and as a transitional scaffold while the DT-CML framework's components are built, piloted with diverse populations, and refined.

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