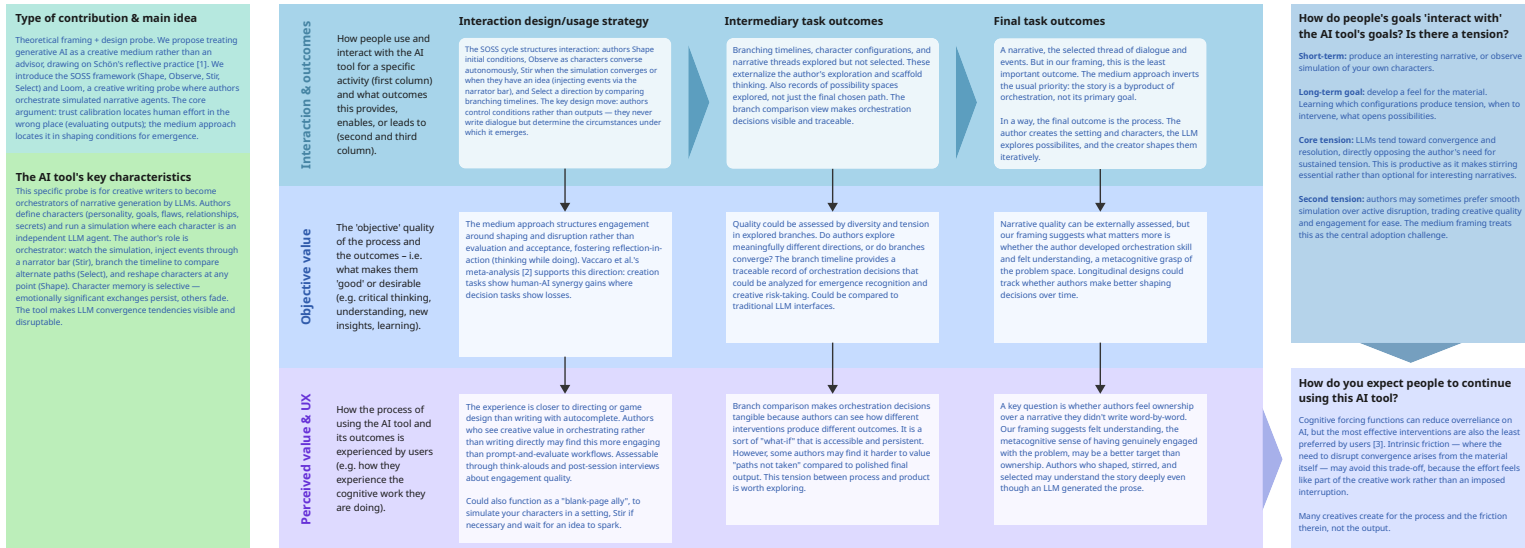


# Material for Thought: Generative AI as Active Creative Medium

**Main theme(s):** design strategy / assessing outcomes and approaches

**Target domain(s):** creativity, open-ended exploration, sensemaking

**Cognitive 'target(s)':** agency, metacognition, reflection



## How do people's goals interact with the AI tool's goals? Is there a tension?

**Short-term:** produce an interesting narrative, or observe simulation of your own characters.

**Long-term goal:** develop a feel for the material. Learning which configurations produce tension, when to intervene, what opens possibilities.

**Core tension:** LLMs tend toward convergence and resolution, directly opposing the author's need for sustained tension. This is productive as it makes stirring essential rather than optional for interesting narratives.

**Second tension:** authors may sometimes prefer smooth simulation over active disruption, trading creative quality and engagement for ease. The medium framing treats this as the central adoption challenge.

## How do you expect people to continue using this AI tool?

Cognitive forcing functions can reduce overreliance on AI, but the most effective interventions are also the least preferred by users [3]. Intrinsic friction — where the need to disrupt convergence arises from the material itself — may avoid this trade-off, because the effort feels like part of the creative work rather than an imposed interruption.

Many creatives create for the process and the friction therein, not the output.

## What you would like to discuss

- How to evaluate whether users develop skill in working with AI as a creative medium over time.
- Whether this medium framing extends beyond creative writing.
- Whether thinking-while-doing interaction with AI could broadly improve creation tasks.

## What would you like to take away from the workshop?

- Approaches to measuring metacognitive engagement.
- Feedback on felt understanding as an evaluation target.
- Connections to others working on reflective friction or creation-task paradigms
- Inspiration from other people and their projects

## Key references (e.g. of main theories, empirical evidence, measurement methods etc.)

[1] Donald A. Schön, 1983. *The Reflective Practitioner: How Professionals Think in Action*. Basic Books, New York.  
[2] Vaccaro M, Almaatouq A, Malone T. When combinations of humans and AI are useful: A systematic review and meta-analysis. *Nat Hum Behav*. 2024 Dec;8(12):2293–2303. <https://doi.org/10.1038/s41562-024-02024-1>  
[3] Buynoz, Z., Malaya, M. B., & Gajos, K. Z. (2021). To trust or to think: cognitive forcing functions can reduce overreliance on AI in AI-assisted decision-making. *Proceedings of the ACM on Human-Computer Interaction*. <https://doi.org/10.1145/3449287>

## How to proceed with this work/idea?

User study of Loom with process tracing (branch histories, stir frequency) and post-session measures of felt understanding. Longitudinal tracking of orchestration skill. Extending the medium framing to non-fiction domains.

Also software/UI improvements like malleability based on expertise, and preferences/style, import support.