

What We Risk Losing When Creating Gets Easy

FRICION, JUDGMENT, AND CRITICAL REFLECTIVE PRACTICE WITH GENERATIVE AI IN CREATIVE WORK

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ABSTRACT Generative AI (GenAI) in creative practice can help narrow the gap between intention and output, but in so doing changes the very nature of that creative process. In this position paper, we argue that the friction of making is not overhead to be removed, but essential to creative work: the resistance through which judgment is built and refined. Rejecting both outright refusal and uncritical adoption, we call for *critical reflective practice*: the deliberate, ongoing, and situated weighing of when to use or refuse GenAI in creative work, treating the formation of judgment as an epistemic virtue that design and pedagogy should (continue to) uphold. Two voices, the GenAI *Skeptic* and GenAI *Enthusiast*, drawn from our professional and personal experiences, argue with each other and with us throughout. We close with open questions for researchers, educators, and practitioners navigating the grey areas of GenAI in creative practice.

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Two voices appear in the margins of this paper: the GenAI **Skeptic** and GenAI **Enthusiast**, personas whose voices are drawn from our earlier empirical work (Ziman et al. 2026), as well as our own practice and teaching. In many ways, they reflect our own experiences in holding these tensions, often simultaneously, through the process of creating. Throughout this work, these interlocutors engage with one another and with us from opposing perspectives: each is given license to overstate, push back, and refuse the resolutions we are tempted to offer too quickly. These personas are also how we register the visceral dimension of this debate which we have directly observed and felt. They also help surface the 'black-and-white thinking' that we are trying to do away with, toward **critical reflective practice** (see page 4).

BENEFITS, LIMITS, AND WHAT REMAINS UNCLEAR

There is a real case to be made for GenAI in creative practice. Across multiple creative domains, practitioners report that current tools can, in some workflows, help narrow the gap between what they can imagine and what they can produce. As a new generation of creative support tools (CSTs) (Palani & Ramos, 2024), GenAI can make some forms of exploration faster, lower the cost of experimentation, and shift the practitioner's efforts from certain forms of slow production toward creative decisions involving curation and refinement.

GenAI tools can also speed up the generation of alternatives and suggest creative directions in ways that open up earlier and wider exploration (Palani & Ramos, 2024; Chandrasekera et al., 2024). In several empirical works involving GenAI use, participants have reported higher creativity, usefulness, novelty, or overall design quality at the level of individual outputs, though these effects vary by task, domain, and user group (Doshi & Hauser, 2024; Chandrasekera et al., 2024; Fu et al., 2024; Holzner et al., 2025). The gains appear especially visible for some novices or less GenAI-experienced creators.

The Enthusiast: Yes! GenAI has the potential to lower the barrier to creative work and make production feel possible for more people. Individuals who have never felt confident in their technical or artistic skills can now move from an intention to a finished work in far less time and effort.

We gain ease and efficiency when we use GenAI tools to brainstorm, perform tedious technical tasks, and move quickly beyond the blank page to take our initial, sometimes vague ideas to a polished, finished product in much less time, and, perhaps for some, with less technical acuity than previously required (Palani & Ramos, 2024).

But these stages of the creative workflow carry meaningful *friction*: the early uncertainty before a project has taken shape, the slow articulation of intent, the sometimes arduous work of technical execution.

The Enthusiast: There is resistance in working with GenAI tools too. A prompt may produce something that is not quite right, and the process can force you to clarify your intentions, though not all creative intent is articulable. That resistance is not always the same as working through form or material directly, but it can still become part of the design process.

The Skeptic: Fair. But there is a difference between resistance that teaches you something about the work and resistance that teaches you how to manage the system. Both can build judgment, but not necessarily the same judgment. Both are real, but they are not interchangeable.

The Enthusiast: That may not hold up in practice. Figuring out how to prompt for something forces you to articulate what you actually want, and that articulation is often where the thinking happens.

The Skeptic: Then it is worth asking: does it matter in what medium that articulation happens? When you prompt, you articulate in words, outside the medium the work will ultimately live in. When you sketch, you use similar materials, marks, and gestures; the thinking happens through the medium, not apart from it.

The Enthusiast: Maybe. Though the line is not always so clean. In 3D software, for instance, you build the scene, place the lights, adjust materials, script behaviours procedurally, and then hit render. These tools already place the maker at some distance from the finished work, and we have accepted that distance as part of contemporary creative practice.

A related idea comes from the tradition of slow technology. Hallnäs and Redström (2001) argued that as computational tools become more deeply embedded in everyday life and designed environments, the ideal of efficiency stops being self-evidently good. **Some tools should be slow on purpose:** slow in ways that resist immediate resolution and demand engagement instead of delivering answers.

Van der Burg et al. (2026) bring this tradition into AI in design education, arguing that current paradigms of GenAI use prioritize fluency and immediate output in ways that discourage reflective engagement. They propose instead that designing for slowness and productive encounters with AI's underlying components and limitations can recover the kinds of critical and constructive engagement that fast, output-oriented tools tend to displace. Weisz et al. (2024) similarly address the risk of overreliance in their design principles for GenAI, recommending that responsible systems "use friction to avoid overreliance" by incorporating mechanisms that intentionally slow practitioners down at key decision points, prompting reflection before action.

Now, picture the same designer asking a generative model to produce a layout. In the vast majority of widely adopted GenAI tools and workflows, the system produces outputs that are already partially or fully resolved. The output may be excellent, but the sites of friction have been shortened (if not bypassed). What disappears, or is at least compressed, is a sequence of small decisions through which the designer would have come to understand the material, the problem, and their own intentions with and toward each (Chiang, 2024). **The practitioner reaches a destination, but perhaps a different one entirely.**

So, how much of that destination can the practitioner claim as their own? Chiang (2024) suggests that the very feature that makes GenAI tools appealing (*minimal input and substantial output*) is also what attenuates the practitioner's claim on the result. This framing has a productive design corollary: if thin input produces thin authorial presence, then the response is to design tools that elicit richer intent from users, a challenge Kreminski (2025) terms "*lensing the imagination*." When a brief prompt produces a fully resolved work, most of the choices were not made by the practitioner, but inherited, on average, from prior work the system was trained on. Prompting and refining are different from the work of building an artifact, and they produce a different relationship between the maker and the output.

This shift in role carries implications. For instance, McGuire et al. (2024) found that individuals are less creative when revising an AI-generated draft than when creating content themselves, unless the interaction is framed as co-creation. The role the practitioner thinks they are playing matters as much as what they are actually doing. This effect is not confined to late-stage editing. Wadinambarachchi et al. (2024) show that early contact with AI outputs can fix practitioners on the first plausible idea and narrow the divergent thinking that exploration depends on.

The Enthusiast: This describes a very particular kind of AI use, and perhaps, not the most thoughtful kind. A designer working seriously with these GenAI tools is iterating, rejecting, revising, and prompting again. Treating the first generation as the whole interaction is a flat description.

The Skeptic: Iterating on a generated output is not the same as creating work without GenAI, however many times you do it. The iteration happens in response to something already formed and committed to a logic.

The Enthusiast and Skeptic are both right that the picture above is incomplete. Translating intent into a form a GenAI system can act on is one kind of thinking, one that may involve iteration, evaluation, redirection, and gradual refinement of intent through repeated contact with the model's outputs (Palani & Ramos, 2024; Zhou & Lee, 2024; Lin et al., 2023; Alharthi, 2025). Wrestling with material until it yields a form is another. The two are not necessarily opposed, but they are not interchangeable either.

REFLECTION IN CREATIVE EXPERIENCE (RICE) WORKSHOP

TOWARD A CRITICAL REFLECTIVE PRACTICE

Ultimately, critical reflective practice is inseparable from the question of how we adopt and integrate GenAI into creative workflows. If the loss worth attending to is the loss of the process, the response is not to refuse the tools or to embrace them uncritically. Adoption is not inevitable, and refusal is not impossible. **Our response is to take their integration seriously as a design problem and a pedagogical problem in its own right.** Without a culture of critical reflection on how AI tools are taught, adopted, and designed, we risk normalizing creative workflows and works that are increasingly monotonous, uncritical, and compliant.

By **critical reflective practice**, we mean the deliberate, informed, ongoing, and situated weighing of when to use and when to refuse GenAI in creative work; the term echoes Agre's (1997) "*critical technical practice*," a call for AI researchers to bring humanistic scrutiny to their own technical assumptions. Working within this grey middle ground, we recognize that the same tool may support judgment in one moment and diminish it in another. A *critical* approach interrogates the values built into these tools: what they afford, what they allow us to construct, and how they shape and limit the kinds of judgment that can be exercised through them. A *reflective* approach turns the same scrutiny inward, asking how our own creative practice changes when we work with these tools, and what we are becoming as practitioners through that work.

The friction that supports the formation of judgment should not be sacrificed in the name of ease or speed. We treat this as both a design and pedagogical commitment, one to be integrated into our CSTs and teaching practices.

The Enthusiast: The question is not whether a tool is fast or slow, but whether it helps me stay with the decisions that matter. A good tool can accelerate without making me absent from the work.

The Skeptic: But many tools do not ask which decisions matter. They make fluency the default and reflection the exception. The design question is not just what the tool allows, but what it rewards.

Supporting this view, Van der Burg et al. (2026) define *Reflective AI* as "a slow technology approach to AI in creative practice that treats AI systems as mediums for self-reflection rather than generators of design outputs." Their work offers a tool-side response: AI systems can be designed to afford reflection by exposing and slowing engagement with the processes through which outputs are produced. McGuire et al. (2024) sharpen the practitioner-side counterpart, arguing that "people must occupy the role of a co-creator, not an editor, to reap the benefits of generative AI in the production of creative works."

Together, these works gesture toward a tool-side commitment (to systems that encourage reflection rather than simply delivering outputs), and a practitioner-side commitment (to occupying a role that allows judgment to form). We extend both: critical reflective practice asks not only how tools should be designed and what role practitioners should occupy, but what conditions across tool design, pedagogy, and individual practice make the formation of judgment possible, and which choices, deliberately or by default, shut it down.

This commitment generates questions at many scales: tool design, pedagogy, individual practice, etc.... We use the remainder of this section to lay some of them out as a set of provocations.

To stand behind a work has often meant understanding how it came to be. Which parts of this work do practitioners need to struggle through in order to understand, revise, and claim it as their own?

Early outputs shape the trajectory of the work; how different would the outcome be if those initial suggestions were absent?

How do we teach students to distinguish between using GenAI to extend judgment and using it to substitute for judgment that has not yet formed?

How do GenAI tools shape the creative processes, roles, and division of labour within the creative industry?

If students are able to bypass friction, what exactly are they learning to do? What remains unlearned?

Are tools designed to surface the moments where a practitioner's judgment is being shaped, or to reduce friction in service of ease and efficiency alone?

How might tools make visible the difference between what the practitioner decided, what the system generated, and what emerged through interaction between the two?

How do we cultivate critical reflective practice as a shared habit across tool design, pedagogy, and practice? *

WE CLOSE WITH ONE FINAL EXCHANGE

The Skeptic: My worry is not really about the finished product. It is about everything we move through to get there. The act of making carries its own kind of knowing: cognitive, emotional, and even physical. Through the process of making, we grow. We gain insight, not only about the thing we are working to create, but about ourselves as well.

The Enthusiast: I will not pretend that GenAI tools cannot shorten that process. They can. But they do not have to make the maker absent from it. A good tool can accelerate some parts of the work while still leaving room for the decisions, hesitations, and discoveries that matter. The question is not whether the path becomes shorter, but whether the practitioner is still changed by moving through it.

The friction of making is not the only thing at stake when GenAI enters creative practice. But we think it is among the easiest and most valuable things to lose as creators. Critical reflective practice, at its most basic, asks us to keep watch.

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