Scaffolding Creativity in Action: Designing AI as a Creative Companion for Embodied, Relational Creativity

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Abstract

Generative AI is increasingly evaluated by what it produces rather than how it supports human creativity. This article challenges that output-centred approach through RePlay Creativity Companion; a conversational AI designed as a creative coach rather than a content generator. Grounded in over a decade of practice-based research and the author's concept of Creativity in Action, the project explores creativity as an embodied, relational, and reflective capacity to recognize and act on emerging possibilities. Drawing on research with designers, children, and communities across Canada, India, and the UK, the article proposes seven design requirements for AI that cultivates rather than replaces creative processes. Through a critical post humanist lens, the Companion offers an alternative to extractive AI design and a starting point for investigating hybrid human–AI creative ecologies.

Keywords: *Human–AI collaboration; Creativity; Critical Media Practice; Research-Creation; Embodiment; Critical Posthumanism*

1.0 Introduction: Asking AI the Right Questions

For most of the last century, creativity research told a story with a single protagonist: the exceptional individual, struck by inspiration, producing the novel work that a field would later judge valuable (Sawyer, 2012). When researchers looked closely at how creative work unfolds, that story becomes frayed. Behind the apparent flash of individual genius is conversation, collaboration, borrowing, and response, in Keith book 'Group Genius', creativity emerges in the interaction between people rather than contained within any one of them (Sawyer, 2017). However collaborative creativity is collective, carried in timing, listening, gesture, and the willingness to build on a half-formed offer, then it becomes extraordinarily hard to research, and harder still to cultivate on purpose.

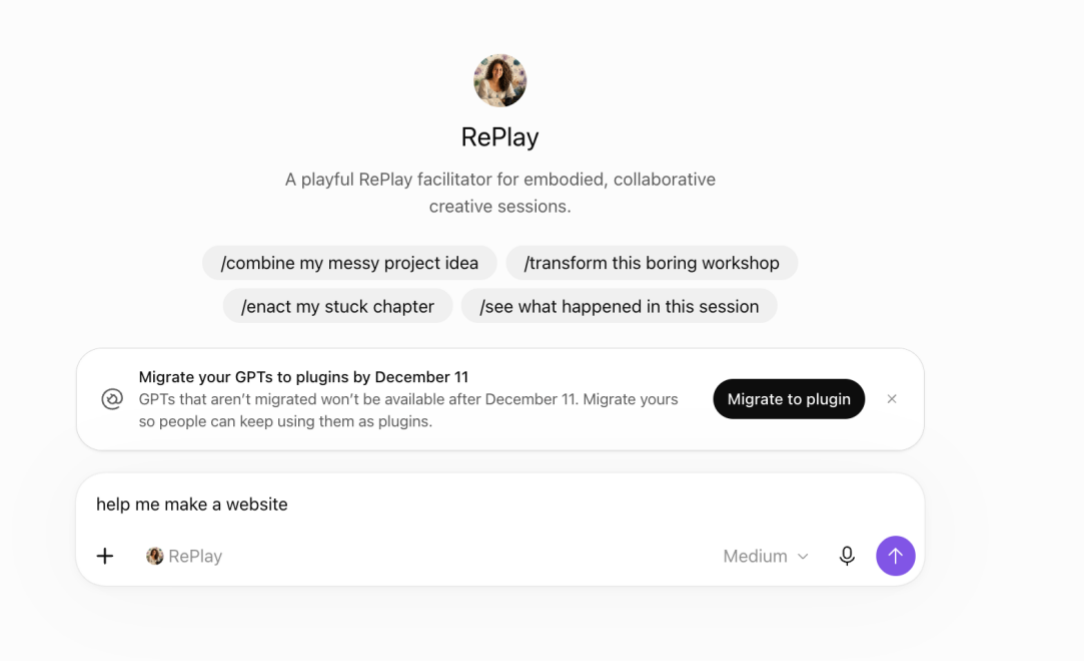
Generative AI, and most recently agentic AI, has arrived into precisely this unresolved question and has, for the most part, simplified it. The dominant public framing asks whether machines can be creative and measures the answer in outputs: can the system produce a plausible image, a competent essay, a passable melody? Framed this way, the contest is already over. A system optimized to generate the statistically probable next token will out-produce any human on volume and speed. But generation is only one moment of creative process, and arguably the least mysterious. The output framing also hides what it costs. Generative systems are trained on the largely uncompensated creative labour of writers, artists, and musicians, and depend on material and environmental infrastructures that their users rarely see (Crawford, 2021). Experimental evidence points to a quieter cost as well: writers given AI-generated ideas produced

stories rated as more creative, but those stories were also more similar to one another, so that the collective diversity of the work fell (Doshi & Hauser, 2024).

This article therefore asks a different question. The useful question is not whether AI can generate, but whether AI can be designed to support the embodied, relational, and reflective process through which people become creative, and if so, how, and for which kinds of creativity. The answer proposed here takes the form of a media artefact: the RePlay Creativity Companion, a conversational agent designed by the author as a creative coach that a person turns to when they are blocked, rather than a generator that does the creative work for them. The Companion is the object of this article. It is examined both as an interface, whose design encodes an argument about what creativity is, and as a provocation that makes visible, by contrast, what output-driven AI leaves out. Below is screenshot of the RePlay Creativity Companion

Figure 1.0

RePlay Creativity Companion



Note: Screenshot of Creativity Companion taken by Author

2.0 Background

This article examines human–AI creative collaboration through a critical posthumanist lens. Following Haraway (1988) and Harding (1991), ideas that knowledge to be situated, meaning that a method, computational or otherwise, is never a neutral instrument but something that shapes what can be noticed, felt, and known. Along the same lines as Braidotti (2013) and Barad (2007), this work treats creative

agency as distributed across assemblages of people, bodies, materials, environments, and technologies rather than owned by a bounded individual. The question this lens raises, is not whether machines can be creative, but how creative agency is redistributed when machines enter the process, who is made more capable by that redistribution, and who or what is designed out. The author comes to this question as a designer, improviser, and creativity researcher who has spent more than a decade building and studying a framework and a theory for collaborative creativity, and more recently as the maker of a computational system that puts these theories to work.

This article makes three contributions:

i. First, it presents the Companion as a first iteration of an alternative to output-driven AI and analyzes the argument its design makes.
ii. Second, it offers a definition of creativity that can be designed for, Creativity in Action, a term the author uses to describe the capacity exercised in process rather than a property of outputs and translates that definition and its supporting fieldwork into seven design requirements.
iii. Third, it develops a critical posthumanist account of human–AI creative collaboration in which agency is distributed but responsibility remains situated.

Section 3.0 introduces the Companion. Section 4.0 sets out the methodology of critical media practice and research-creation. Section 5.0 reviews the literature on types of creativity, the relational turn, improvisation, and co-creative AI. Section 6.0 sets out Creativity in Action and RePlay, and Section 7.0 develops the design requirements and shows how the Companion addresses them. Section 8.0 discusses the Companion as critical media practice and research instrument, and Section 9.0 sets out future work and closes with an open question.

3.0 The RePlay Creativity Companion: A First Iteration

The RePlay Creativity Companion is a custom conversational agent designed by the author to support creative process rather than replace it. It is presented here as a first iteration of what could be possible rather than a finished system: an early, working sketch of an AI creative coach. It is, deliberately, a piece of critical media practice: not only a proposal for how such a system might behave, but a working interface that can be used and interrogated by others. It currently takes the form of an individual agent that a person talks to, by text or by voice, built as a custom GPT within ChatGPT. Its purpose "is not to generate ideas for the user. It is to strengthen the user's capacity for Creativity in Action by increasing their awareness of emerging possibilities, patterns, relationships, embodied understanding, and reflective insight." Where the dominant paradigm positions AI as the generator and the human as editor or prompt writer, the Companion positions the human as the creator and the system as player, facilitator, and reflective mirror. It plays in short turns so as not to flood the exchange; it quarantines judgment to

announced moments of reflection; and it repeatedly prompts physical externalization: sketch it, pick up the nearest object and let it stand for the problem, stand up and walk the idea through. Having no body, it must return the body to the person who has one. Future iterations will include modes that are not stylistic presets: each enacts a distinct type of creativity through a specific RePlay mechanism. The combinational creativity mode will enact Boden's combinational creativity, injecting stimuli foreign to the user's domain and playing forced fusions (2004) . The explore mode will enact exploratory creativity, elaborating a premise to the edges of what its current rules allow. The transform mode cultivates transformational creativity through the RePlay game of bad ideas: inviting deliberately forbidden or absurd proposals, then excavating the rule each one violated and asking whether that rule is real, inherited, or merely optional. Transformation, in this design, becomes the discovery that a constraint one took to be a law was only a habit. Further capacities might include the golden thread and the diagnosis of creative blocks discussed in Section 7.0.

Read as a media object, the Companion is notable as much for what its interface refuses as for what it does. The conventional chat interface of generative AI is organized around a request and a deliverable: the user prompts, the system produces, the user selects. The Companion keeps the same conversational surface but reorganizes the exchange around the person's process, so that the most important outputs are the person's own noticing, movement, and reflection. Its existence as a custom GPT within a commercial service, and that service's announced decision to retire custom GPTs (Ramel, 2026), are reminders that critical media practice built on proprietary infrastructure inherits that infrastructure's precarity.

4.0 Methodology: Critical Media Practice as Research-Creation

Methodologically, this article treats the Companion as critical media practice and as research-creation: a mode of inquiry in which making is itself a way of producing knowledge, and in which the artefact is both an outcome of research and an argument in its own right (Chapman & Sawchuk, 2012). In the tradition of critical making, building the system is a way of thinking through the social and conceptual questions it raises, rather than a technical exercise that precedes critique (Ratto, 2011). The Companion therefore does not illustrate an argument developed elsewhere. Its instructions, modes, and refusals are where the argument is made, and they are analyzed here as such.

The design of the Companion is grounded in the author's doctoral research, which developed RePlay through exploratory studies and three case studies using video, traces, participant reflections, and the Teasing Apart, Piecing Together (TAPT) method (Hooper, 2011). Evidence from that fieldwork is used in Section 7 to ground each design requirement. The approach is reflexive: following Suchman's (1987) insistence that human–machine interaction is situated action rather than the execution of plans, the article attends to what the Companion asks of the person in context, not only to what it computes. The claims that follow are design propositions and interpretive arguments, not the results of a user evaluation.

5.0 Literature Review

5.1 Creativity Has Types

Before asking whether AI supports creativity, it is necessary to ask: which creativity? The research literature treats creativity as a single thing, and the distinctions it draws are precisely the ones the "can machines create?" debate tends to flatten. The most basic distinction is one of magnitude. Big-C creativity names the rare, field-altering achievement that reorganizes a domain, while little-c creativity names the everyday, adaptive creativity through which ordinary people solve novel problems in context (Craft et al., 2001; Kaufman & Beghetto, 2009). The two are not supported by the same means: helping someone develop everyday creative fluency is different from purporting to produce historically novel work.

A second, more operational distinction comes from Margaret Boden (2004), who distinguishes combinational creativity, the fusing of familiar elements into unfamiliar wholes; exploratory creativity, the search of a structured conceptual space for what its existing rules allow; and transformational creativity, the alteration of the space's own rules, so that what was previously impossible becomes thinkable. Boden also distinguishes ideas that are new to the person who has them (psychological creativity) from ideas that are new to history (historical creativity), which maps closely onto little-c and Big-C.

Boden is used deliberately here, and the reason is her lineage. Boden is a cognitive scientist whose career at the University of Sussex was bound up with the founding of cognitive science and artificial intelligence as fields of study there, and her work on AI predates the current debate by decades (Boden, 1977). Her typology was built in part so that creative processes could be described precisely enough to be modelled computationally (Boden, 1998), which is why the field of computational creativity treats it as foundational. That makes it the natural vocabulary for an AI collaborator: it already bridges human and machine creativity. Its limit is the other side of the same coin. Boden's account is cognitive and largely symbolic. It describes operations on conceptual spaces inside a mind, and it has little to say about the body, the room, the relationship between people, or the timing of an offer. Creativity in Action is intended to fill that gap. This article therefore extends Boden's work rather than simply borrowing from her, keeping her typology as a way of naming creative operations and locating those operations in embodied, relational activity.

5.2 From the Individual to the Relational

Boden's typology sits within a broader movement of the field across the twentieth century. Stage models, from Wallas's (1926) preparation, incubation, illumination, and verification to the generate-and-explore cycle of the Geneplore model (Finke et al., 1992), described creativity as a largely sequential and internal process. Confluence models then treated creativity as the meeting of multiple internal and contextual factors (Sternberg & Lubart, 1999), and the systems turn located it in the interaction of person, domain, and field (Csikszentmihalyi, 1999). Embodied and enactive accounts went further, grounding

cognition in bodily action and perception rather than internal symbol manipulation alone (Varela et al., 1991; Noë, 2004), while Schön (1983) showed how practitioners think through a reflective conversation with the materials of a situation.

This trajectory marks a steady migration of creativity away from the isolated mind and toward the body, the relation, and the situation: the very dimensions that a generation-centred account of AI creativity leaves out.

5.3 Improvisation and Group Creativity

Improvisational theatre has refined a working theory of collaborative creativity for the better part of a century. Spolin's (1999) theatre games cultivated intuition, focus, and group attunement as trainable capacities, and Johnstone (1989) showed how status, spontaneity, and the acceptance of offers shape what can happen on stage. Sawyer (2000, 2012) brought this tradition into creativity research through the concept of collaborative emergence: in improvisation, possibilities arise from the interaction itself and cannot be attributed to any single participant's plan. Group flow, the collective counterpart of the absorbed state Csikszentmihalyi (2008) describes, depends on close listening, shared goals, and the willingness to build on one another's ideas (Sawyer, 2017).

5.4 Co-creative AI and Its Critics

Research on human–AI co-creativity has begun to model how the turns, roles, and initiative of a shared creative exchange can be divided between person and system (Rezwana & Maher, 2023). Improvised theatre has served as a proving ground for AI partners, most visibly in Improbotics, where human actors perform alongside a language model and treat its outputs as offers (Mathewson & Mirowski, 2018). In embodied movement, LuminAI explores a co-creative AI dance partner that improvises responses to a human dancer's movement (Trajkova et al., 2024). These systems are important precedents, but they share a limit: they act as players of varying sophistication, contributing material to a shared performance, while the framing, timing, and facilitation of the creative process remain with the humans. They are not designed to recognize what kind of creativity a moment calls for, to notice when a person is stuck, or to help them become aware of their creative process. Doshi and Hauser's (2024) finding that AI assistance can increase individual creativity while reducing collective diversity suggests that generation at scale may homogenize what people make. Crawford (2021) shows how AI rests on extraction: of data, of labour, and of planetary resources. Bassett (2022) argues that the history of computing is also a history of what computational logics exclude, and that the humanities offer not a supplement to technical research but an alternative standpoint from which to ask different questions. This article takes that standpoint seriously. It asks not what AI can produce, but what human creative capacity consists of, and what an AI would have to do to strengthen rather than displace it.

6.0 Creativity in Action and RePlay

Across more than a decade of workshops and case studies, the author developed RePlay to make collaborative creativity observable and, through observing it, to cultivate it. RePlay adapts the practical intelligence of improvisational theatre into a framework for design research and creative facilitation.

It operates in three registers:

i. As a method when it structures a workshop,
ii. As a framework when it organizes principles and conditions,
iii. And as a methodology when it is used to generate and interpret knowledge about collaborative creative process.

It was developed through exploratory studies with improvisers in Lancaster, UK designers at Philips Design, TU and an artist residency in Reykjavik, and then applied in three case studies: with design and technology researchers at the Tiree Tech Wave in Scotland, with children and community members in the Kabadkhana neighbourhood of Bhopal, India, through Global Studio, and with young makers in Ottawa through the Bendables project.

The phenomenon RePlay was built to cultivate what is termed here as *Creativity in Action: the cultivated capacity to perceive and act upon emergent possibilities in real time through embodied, relational, and reflective engagement* (Gongora, L. ,2010a). The definition does specific work. It locates creativity in a capacity rather than a product, and it insists that the capacity can be cultivated and trained rather than being only innate. It is embodied: people frequently discover what they think by doing rather than before doing (Noë, 2004). It is relational: it emerges between people, in the timing and responsiveness of exchange (Sawyer, 2012). And it is reflective: it involves noticing one's own process as it unfolds, a cousin of Schön's (1983) reflection-in-action, but trainable rather than the province of experts alone, collective as well as individual, and generative rather than primarily corrective.

Two further concepts organize the framework. The first is the *sandbox: a bounded but open condition under which creative risk becomes possible*. A sandbox has edges, and its constraints are what create freedom and safety. Within it, ordinary consequences are suspended, failure is redefined as information rather than verdict, and the inner critic, what improvisers call the monkey mind, is made visible and quieted. The sandbox is not a building but a set of conditions: playful constraint, facilitation, externalization, responsiveness, shared attention, and reflective return. The second concept is embodied externalization, the practice of making thought outwardly and bodily visible through tableaux, trigger objects, and enacting a system with one's own body, so that it can be shared, examined, and built upon (Gongora, L., & Dix, A. (2012a). Where drawing and writing tend to externalize an idea that has already taken shape, embodied externalization works in both directions at once, discovering the idea while enacting it. The claims that

follow rest on qualitative, practice-based research with small groups. They show what embodied, relational creativity looks like when it is supported, and what kinds of support appeared to matter. They do not establish causal effects. With that status in mind, Section 7 asks what these findings require of a computational participant in the process.

7.0 Design Requirements for an AI Creative Coach

If creativity is a capacity exercised in process, then AI that supports it should be judged by what it helps a person do and notice, not by what it produces. The Companion introduced in Section 2 is designed around that principle, as a creative coach and facilitator closer to a skilled improvisation teacher than to a content generator. The seven requirements below specify what such a coach must be able to do and indicate where the current iteration meets them. Each draw on the literature reviewed in Section 5 and on evidence from the author's fieldwork, so that the earlier sites of practice serve here as grounds for design rather than as a catalogue of projects. Table 1 summarizes them.

Table 1.0

Design Requirements for an AI Creative Coach

Requirement	What it asks of the AI	Grounding
R1. The sandbox	Keep the exchange playful, low-stakes, and bounded; suspend judgment	Improvisation; Global Studio, Bhopal
R2. Return to the body	Prompt sketching, movement, objects, and enactment	Enactive perception; Bendables, Ottawa
R3. Timed reflection	Let play run, then invite reflection, including verbal processing	Reflection-in-action; Lancaster pilot; Tiree Tech Wave
R4. The golden thread	Connect recurring ideas, images, and pivots across sessions and reflect them back	RePlay traces and Playback
R5. Name the creativity	Recognize which kind of creativity is under way	Boden; Big-C and little-c
R6. Diagnose blocks and suggest interventions	Recognize incubation or fixation and offer a shift	Wallas; Duncker; BadIdeas
R7. Companion, not generator	Keep the person as the creator; develop their own perspective rather than reflecting dominant culture back	Homogenization; situated knowledge

Note. Requirements derived by the author from the RePlay case studies and literature reviewed in Section 5.

7.1 The Sandbox

The first requirement is that the coach creates and protects the conditions under which creative risk is possible: playful constraint, suspended judgment, and the redefinition of failure as information. In Global Studio's work in Bhopal, the children whose neighbourhood was being redesigned shared no common language with most of the design team, and language-dependent design research struggled accordingly. Working with translators and with parents' signed consent, the design team built a sandbox instead: through warm-up games and embodied mapping, children used their bodies together to construct a living picture of the neighbourhood they wanted, and their priorities, such as gardens, play spaces, and clean

water, fed into the studio's design proposals. The sandbox carried creative and spatial knowledge across barriers of language, age, and power that interviews could not. For an AI coach, holding the sandbox means keeping exchanges short and playful, quarantining evaluation to announced moments, and treating an unpromising idea as material rather than error.

7.2 Return to the Body

Having no body, an AI coach must return the body to the person who has one. The Bendables project, developed with young makers in Ottawa under ethics approval from Carleton University, shows why this matters. In the first workshop, children reflected on their inventions mainly by drawing them. In the second, they acted out their inventions for a partner while research assistants asked exploratory questions, and this proved considerably more effective, both as a tool for reflection and as a way of learning how the children had made what they made. For these makers, the body reached what the pencil could not. A coach that meets people only through a text box risks routing creativity through the most representational channel available. This is why the Companion repeatedly prompts physical externalization.

7.3 Timed Reflection

Reflection is not a single stage at the end of a creative process; its value depends on its timing and form. In the Lancaster pilot, explicit verbal reflection introduced in the middle of an improvisation interrupted its momentum, while reflection afterwards, or at the right moment and in the right form during the activity, helped participants articulate and develop their ideas. At the Tiree Tech Wave, participants described their RePlay sessions using Teasing Apart, Piecing Together, an experience-analysis method developed by Hooper (2011). One described "letting go of self-consciousness whilst having fun and understanding other people's views on the issues"; another said the activity "unveiled part of my thoughts in an unexpected way." A coach must therefore know when not to ask questions. It should let play run, then invite reflection, and it should support reflection in its most natural form: verbal processing, the thinking-aloud that happens in conversation, which a conversational agent like the RePlay Companion is unusually well suited to host.

7.4 The Golden Thread

The fourth requirement goes beyond documentation. A log records what happened; a golden thread connects what matters. The term is used here for a meaningful through-line of a person's creative process: the image that keeps returning, the question they keep circling, the bad idea that later turned into something, the pivot they did not notice making. In RePlay, traces, video, and the Playback game make the ephemeral moments of improvisation available for later reflection. An AI companion can extend this across time. Holding the golden thread means noticing recurrences across sessions and reflecting them back, so that a person can see their own creative logic: "three weeks ago you had an idea about bending, and you

keep returning to it." The thread belongs to the person. Its purpose is not surveillance or analytics but self-recognition, and it must be visible, editable, and theirs to keep or discard.

6.5 Naming Creativity Types

An AI agent should be able to recognize and name the kind of creativity under way. This is where Boden's typology becomes practical. Telling someone that they are combining two distant domains, exploring the edges of an existing format, or questioning a rule they had taken for granted helps them see what they are doing and choose what to do next. The distinction between little-c and Big-C matters here as well: most people who seek help are pursuing everyday creative fluency, not historical novelty, and a coach should support that work on its own terms. The Companion's combine, explore, and transform modes are a first step toward this, turning the typology of Section 4.1 into a shared vocabulary between person and coach.

6.6 Diagnose Blocks and Suggest Interventions

People seek help when they are stuck, so the coach must be able to recognize where they are stuck and suggest a way forward. Creativity research offers a vocabulary for this. An apparent block may be incubation, the phase in which a problem is set aside and continues to work below awareness (Wallas, 1926), in which case the right intervention may be a break or a walk rather than more effort. Or it may be fixation, the inability to see a familiar element in a new way (Duncker, 1945), in which case the right intervention may be a forced shift: a deliberately bad idea, in the spirit of Dix et al.'s (2006) BadIdeas method; a change of medium; or a move from talking to doing. These diagnoses are offered as hypotheses for the person to accept or reject, never as verdicts, and the coach's role is to suggest, not to prescribe.

6.7 Coach, Not Generator

The final requirement governs the others: the person remains the creator. The coach may play, offer provocations, and contribute ideas in short turns, but it does not take over the generative work. This is partly an ethical choice and partly a response to evidence. If AI-generated ideas pull many people toward the same statistically likely outcomes (Doshi & Hauser, 2024), a coach that hands the generative move back to each person, and asks them to find it in their own body, materials, and situation, has at least a structural reason to preserve the diversity that generation at scale erodes. The same logic applies to perspective. A generative model trained on the dominant record of what has already been written, painted, and designed tends to reflect that dominant culture back to its users. A coach should do the opposite: draw out and develop the person's own situated perspective, their language, histories, and ways of perceiving, so that their work becomes more recognizably theirs rather than more like everyone else's. The golden thread serves this purpose too, because it is built from the person's own recurring images and questions rather than from the statistical centre of the training data.

8.0 Discussion: Toward a Critical Posthumanist Account of Human–AI Creative Collaboration

The dominant design of generative AI treats creativity as the production of artefacts and optimizes for the speed and volume of that production. In doing so, it quietly externalizes to the machine the process itself, and leaves to the human the role of selecting among machine outputs. The risk is not, principally, that machines will out-create people. It is subtler and nearer: that by routing creative work through generation and selection, designers will design away the conditions under which the deeper, embodied, relational forms of creativity occur, such as the body corrected by the resistance of materials, the presence of others whose responses are read before they speak, the willingness to fail in front of one another, and the protected openness of the sandbox.

The author's doctoral research suggests a further reason these conditions matter. Human creativity is grounded at several levels at once. The body receives continuous feedback from materials and environments; conversation partners correct one another through hesitation, tone, and posture; and the social field of an ensemble constrains and redirects what becomes possible. Current language models generate through statistical processes and lack an equivalent first-person anchor, which is one way of understanding why their fluent outputs can be confidently wrong. The point is not that AI contributes nothing. It is that embodied, social, and environmental grounding provide forms of correction and accountability that current generative systems do not possess on their own, and a coach should keep people in contact with those sources rather than replace them.

Beyond its use as a coach, the Companion is also a research instrument. What happens creatively between a person and a machine is an open question, and the Companion makes it observable. The settings in which this happens are termed here *hybrid creative ecologies: entangled systems of human embodiment, social interaction, materials, environments, and computational agency within which creative emergence becomes possible*. RePlay's methods of traces, playback, reflective interviews, accounts transfer directly to the study of these ecologies, allowing researchers to ask how people take up, transform, or resist a computational partner's contributions, and whether a coach strengthens a person's own capacity over time.

A posthumanist reading might seem to sit uneasily with the insistence that the human remains the creator. Following Braidotti (2013) and Barad (2007), creative agency is distributed: the material resists, a partner's offer redirects, the system's combination surprises, and none of these reduces to anyone's intention. The two positions can be reconciled by distinguishing agency from responsibility. Agency is distributed across the assemblage, but responsibility for what the process becomes, and the capacity the process develops, remain with situated people. The Companion is designed for exactly this ontology. It is a genuine contributor to a distributed process, and it is not the creator, and both are true at once. A design

that forgets this does not become more posthumanist; it simply moves authorship to whoever owns the system.

This is also where the Companion becomes critical media practice in the sense this article intends. Following Bassett (2022), the humanities can refuse the terms of computational enthusiasm and propose different ones. The Companion does this in practice. It is constructive, demonstrating a working alternative, and critical, exposing by contrast what output-driven AI leaves out. If creativity is situated and distributed, then the methods used to study and support it are not neutral instruments but world-making practices that shape what can be noticed and who can participate (Haraway, 1988; Harding, 1991). RePlay worked across language, age, and power in Bhopal because it did not require participants to translate their knowledge into the dominant medium of the design team. An AI coach should be held to the same standard: whose bodies, languages, and ways of knowing does it make room for, and whose does it quietly exclude? The question extends to workplaces. AI in work settings is more often deployed to monitor and intensify labour than to support the improvisational skill workers already have; a facilitative design, such as the author's Brigado project discussed in Section 9.0, asks instead how AI might redistribute recognition and authority rather than concentrate them. A system that returns the statistical centre of its training data to every user amplifies dominant culture; a coach designed around situated knowledge should instead help each person develop a perspective that is recognizably their own.

These claims have limits. The fieldwork is qualitative and small in scale, it was conducted before the Companion existed, and the author was the developer, facilitator, and analyst of the work. The Companion is still at the stage of a prototype has not yet been evaluated with users, and the requirements are as such design propositions grounded in that fieldwork, not validated findings.

9. Conclusion and Future Work

This article has argued that AI for creativity should be designed as a coach for creative process rather than a generator of creative products, and it has specified what such a coach must do: hold the sandbox, return people to their bodies, timely reflection, draw the golden thread, name the creativity, diagnose blocks, and leave the creating to the person. Five future directions seem possible.

The first is to develop the Companion's ability to analyze a person's creative process as it unfolds, moving from user-selected modes toward recognizing, from the course of a conversation, the type of creativity in play, whether combinational, exploratory, transformational, or analogical (Ball & Christensen, 2009), and when a person is incubating or fixated. Beyond naming these patterns, the Companion could invite different types of creative process without announcing them: proposing an analogy when someone has been combining, or a rule-breaking bad idea when they have been exploring within familiar limits. Over time, this tacit coaching would work less like instruction and more like the way an improvisation teacher

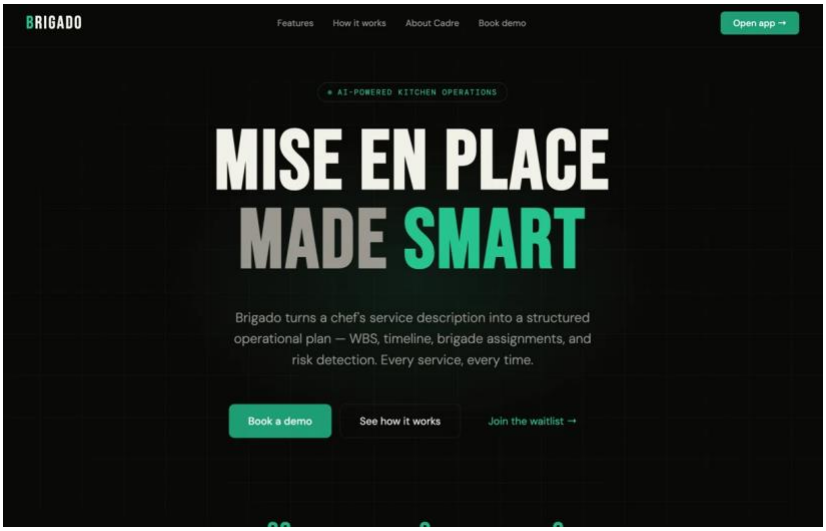
trains a performer, developing Creativity in Action itself as a practised capacity rather than a concept to be learned. The second is architectural. As noted in Section 3, OpenAI has announced that it will retire custom GPTs, with retirement scheduled for 11 December 2026, and move their workflows to plugins that package instructions as reusable skills alongside connected tools (Ramel, 2026). The author intends to explore rebuilding the Companion as a plugin, which creates an opportunity to separate its facilitation moves into distinct skills and to give the golden thread a persistent, reflection of the creative process. Alongside this technical work, the author intends to keep developing a language for describing this type of system. Terms such as creative coach, creativity agent, player-facilitator, and hybrid creative ecology are early attempts to name something that existing categories, such as tool, assistant, or co-creator, do not quite capture. The third is a team version, which would return the Companion to RePlay's origins in group improvisation and allow it to be studied in collaborative settings. The author's ongoing project Brigado takes this direction into working life. A professional kitchen is a live improvisational system: tasks shift by the second, timing is relational, communication is compressed, and coordination depends on embodied anticipation and response. Yet kitchens are still widely organized through the brigade system, a vertical chain of command that assigns each cook a fixed station and rank and routes authority from the top down.

Figure 1.2
Brigado Ensemble



Brigado at this stage of MVP explores how AI-supported tools might support the improvisation that kitchens already depend on while helping to dismantle that hierarchy: making tacit coordination visible so that it can be shared, recognizing contributions across ranks, and supporting more horizontal, inclusive, and psychologically safer ways of working. The same principle applies as for the Companion: the system supports an existing human capacity rather than optimizing labour in the extractive sense.

Figure 1.3
Brigado Screenshot



The fourth direction is the most speculative and the most important to approach critically. Neurotechnology, including brain–computer interfaces and non-invasive brain stimulation, is beginning to promise access to creative states, such as flow, directly through the nervous system. Through a posthumanist lens, this would not simply add a new tool to the assemblage; it would move the boundary of the creative body itself. It raises questions this framework is well placed to ask: who consents to having their creative states read or modulated, who owns the resulting data, and whether a state reached through stimulation is the same capacity as one cultivated through practice. RePlay approaches related states from the opposite direction, through social and embodied means, and a comparison between the two would be a productive line of research.

The fifth direction is interdisciplinary. The questions raised here sit between media studies, design, cognitive science, and neuroscience, and answering them well requires collaboration across those fields. Neuroaesthetics, which studies the neural basis of aesthetic experience and creative production (Chatterjee & Vartanian, 2014), offers one partner discipline. Consumer-grade EEG headsets such as the Emotiv EPOC X could be used to record neural activity during sessions with the Companion and with RePlay groups, and to read those recordings alongside participants' accounts of their process. Research on transcranial direct current stimulation (tDCS) applied to creativity training (Onarheim & Friis-Olivarius, 2013) offers a contrasting case: an approach that seeks creative states through direct neural modulation, where RePlay and the Companion seek them through social, embodied, and reflective means. Such collaborations would treat neuroscience as one lens among several, and would need the same critical attention to consent, data, and power that the previous paragraph calls for.

The article ends with a question rather than a conclusion. In September 2026, OpenAI announced that a system of thousands of AI agents had produced a proof concerning the Navier–Stokes equations, one of

the Clay Mathematics Institute's Millennium Prize Problems; the result was formally checked in the Lean proof assistant but still awaited further scrutiny (Kakaes, 2026). The mathematician Terence Tao observed that such problems "are posed not because we desperately want the solution to these problems in and of themselves," but because "human-directed efforts to solve these problems tend to spur further development of the field" (as quoted in Huckins, 2026). The value of the problem, on this view, lies partly in the doing.

So when AI takes over the problem solving, does creativity become something else? One possible answer is that it depends on the role AI is designed to play. As a problem solver, AI takes the process away and hands back an answer. As a reflective partner, it can give the process back to people more visibly: noticing their patterns, holding the golden thread, naming what kind of creativity they are doing, and asking good questions when they are stuck. In that case the human role may shift from solving toward framing, choosing which questions are worth pursuing, and reflecting on how creative possibilities emerge. Creativity would then be redistributed rather than destroyed. The RePlay Creativity Companion, in its first iteration, is one experiment in what that redistribution could look like, and the question of what it should become is one the author intends to keep pursuing.

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