Our Creative Nature: Future Skilling Research in Times of Transition

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Abstract
This essay introduces CYANOTYPES, a collaborative multi-year research project that set out to explore and address how people across the creative sector — arts, culture, and design in all their manifestations — might organise learning in the (immediate) future, and outlines a creative agency model to facilitate the development of curricula and custom learning journeys, contending that especially in the context of the growing role of intelligent systems in the creative process, a focus on creative agency makes sense to frame the analysis as well as the design of learning processes.

Keywords
Future skills
Creative agency model
Co-creation of value
Triple loop learning
Competence ecosystems
Introduction

As educators in the cultural and creative sector, we tend to assume that education offers a useful response to change. In the case of future skills, we can only anticipate, extrapolate, speculate — so the question of how exactly we make sense of what has not yet happened becomes a central research concern, as we explore a range of possible, plausible, and preferable futures. Additionally, assumptions about the power of education to support future creatives are currently being challenged by a new generation of intelligent systems that accelerate the automation of creative expression. If machines can create, what comprehension of human creative agency should inform the design of educational processes? This essay introduces a collaborative research project on future skills and outlines a creative agency model, contending that especially in the context of the growing role of intelligent systems in the creative process, a focus on creative agency makes sense to frame the analysis as well as the design of learning processes.

Research Context:
CYANOTYPES – Strategic Skills for Creative Futures

Designed to explore possible futures of creative education, the name of the CYANOTYPES research project exploring educational futures for the creative sector (https://cyanotypes.website) was inspired by an artistic practice, the work of Anna Atkins (Walther, 2023). A botanist and photography pioneer born in the late 18th century, Atkins’ use of what was then a new technology (cyanotyping) to document algae in (literally) blue prints made sense to us in many ways: a reminder of the diversity of creative innovation whose technology-centric narratives have come to be dominated by male technologists who have somehow come to literally embody possible futures;
as a journey back to the arts-and-technology origins of the term blueprint we use today to refer to roadmaps and other foundational documents meant to inform strategic action; and as an example of the combination of art and technology to improve our comprehension of the ecosystems and non-human agencies that sustain us.

**Methodology**

Sharing a Language: Triple Loop Learning for Creative Agency

Building on collaborative research work on anticipation and collective intelligence design (Zehle, Kollegala, & Crombie, 2021a, 2021b, 2021c; Zehle & Crombie, 2020), the multi-year research project set out to explore and address how people across the creative sector — arts, culture, design in all their manifestations — might organise learning in the (immediate) future. The network’s first conceptual gesture was to reclaim and reframe the very idea of blueprints. Both “print” and “type” locate us firmly in the historical (and technological) transformation of one of our core cultural techniques (writing), which allows us to engage with the current wave of data-driven systems offering glimpses of “ubiquitous pseudocognition” (The Economist, 2023) as that which it (also) is — the latest episode in the history of the automation of creative expression that also includes the arts-and-technology experiments of the avantgardes (Schoenthaler, 2022). Though the term “blueprint” is commonly used to refer to replicable frameworks, CYANOTYPES shifts from “blueprints” to “cyanotypes” as aesthetic practice — calling attention to a pioneering photographic process that tapped into technological advances to usher in a new mode of representation, out of which developed the “blueprint” we know and widely use in non-artistic contexts today.

Easily dismissable as a mere play on words, there is nonetheless a key point to be made: naming matters, as does the playful exploration of what the concepts we have at our disposal can and cannot do whenever we set out to frame a research process. And as much as names anchor efforts in archives, contexts, histories, pulling up these anchors too quickly might make a new effort seem to float around with no apparent linkages to what has come before, severing links to an archive full of pasts and possible futures. So even more so than “blueprint”, “cyanotype” intends to reaffirm the role of the (historical and contemporary) arts-and-technology experiment and, in so doing, refuse to separate reflections on technology from reflections on aesthetic practice to instead encourage us to think of them together from the start.

Finally, the idea of “types” keeps alive the question of how much we actually do have in common (learning types, curricula on skillsets of agreed relevance, etc.) and how far we still have to go to individualise learning to address the diversity of ways of coming to knowledge. In our experience, the arts, design, and culture are as much about common aesthetic conventions as they are about the desire to break whatever rules seem to get in the way of such individuality — of people, contexts, and areas of knowledge. Customising learning to ensure we have enough in common to live together seems
like an attempt to square the circle, but then that is why so many keen learners end up in the creative sector in the first place - hoping to find ways to relate to both self and society, coming up with new ideas on how to negotiate what appears difficult to commensurate.

Which is also why the idea of “commensuration” (Espeland & Stevens, 1998) — the practice of translating different values into one another — has became a key element of the network’s research: what values guide our understanding of learning, our assessments of urgency and futurity, our proposals for the design of learning contexts and processes. Understood as the “willful elimination of the heterogeneity of values”, commensuration is a fundamentally social process: “Commensuration can change our relations to what we value and alter how we invest in things and people. Commensuration makes the world more predictable, but at what cost?” (Espeland & Stevens, 1998, p. 319). Because consideration of “commensuration costs” — what do we gain, what do we lose when we reframe arts and technology relations — relates to how we reflect and possibly reframe our relationship to a new generation of “generative” socio-technological systems, such a focus allows us to turn to the “deeper” tech design conversation that lies at the core of many of the technologies changing creative work, especially since “generative” systems for creative expression also involve changes in concepts of ownership (EUIPO, 2022) and systems for the storage of value (Owocki, 2022).

The power we see in such an approach is that this opens up a research conversation capable of involving us in the actual design of socio-technical systems (Ropohl, 1999) — and in learning what we need to do to make such systems regenerative. Integrating the question of how we translate values into one another into our research approach allows us to acknowledge and address a wide range of conflicts involved in the triple loop learning conversation — and help us assess where we might (not) be able to negotiate them — but also the extent to which we already depend on processes of automation to organise our lives individually and collectively. So if new forms of triple loop learning can be designed to better imagine and implement educational dynamics addressing urgent and future skills related in turn to the way (just, regenerative, sustainable, etc.) in which we wish to co-create value, commensuration — what can (not) be translated into something else, a recurring question in conversations based on distinctions such as analogue/digital, cultural/natural, human/machinic — is one name we might want to give to the new game.

Re-Defining Future Skills

When asked about future skill needs, many of the participants in our research survey (conducted by network member European Creative Business Network with 180 participants from across the sector) responded with references to current technological innovations, mainly Artificial Intelligence. Such responses mirror the conversations we had had in all of our workshops and highlight that the future is essentially thought of in terms of the role of technology as the main driver of transformation: technology is integral to the creative process, so future skilling is mainly about our ability...
to explore and employ the technologies of the future. Only a few respondents emphasised the role creatives might play in the design and governance of such technologies, or in the reframing of the role of technology in the creative process. We concluded — based on these responses, but also the discomfort with the pace of technological change and its seeming inevitability that we sensed in all of our workshops — that our research should also address the lack of awareness (and possibly imagination) of what alternative futures might look like. Not least because future creatives includes a wide range of actors — full-time creative professionals across subsectors, but also people (temporarily) assuming creative roles as facilitators of change and cooperation beyond the creative sector. As the interest in collaboration grows (work in teams that reflect the full range of diversity, co-work with generative systems, redesign of business models for circularity), people with such skill sets are likely to be needed wherever the co-creation of (private and public) value is a concern. Given that such value creation and market design conversations are integral to processes of transformation and ecosystem design, future creatives are well-positioned to co-facilitate such processes (based on learning approaches that addressed this role of intermediary). This links future skilling to processes of transformation far beyond existing subsectoral domains of applied creative labour, including organisational development, innovation governance, and systems design.

Our research has shown that the definition of future skills reflects broader societal narratives about the future: wherever technological determinism holds (the assumption that tech innovation drives the future of creative work, and that there is not much we can do to change the direction of this process), the definition of future skills tends to highlight the role of skills required to explore and employ these technologies (the need to focus on adaptation to “close the gap” between tech innovation and its application in creative sector contexts of value creation). Wherever other concerns frame the reflection on skills, especially the future role of creatives in the triple transition of social, ecological, and technological change, a more holistic view of future skilling prevails, by which technology is integrated into a broader dynamic of co-creation that features creatives not only as designers of products and services but of processes and systems. This difference reappears in other innovation contexts, such as the OECD innovation facets model (which distinguishes a focus on adaptation and enhancement from a focus on missions and anticipation) or different assessments of the role of disruptive and non-disruptive innovation. This is a schema that was introduced in 2019 in the OECD Declaration on Public Sector Innovation and has since been operationalized and validated in innovation-governance contexts across Europe. In this respect it is also important to mention the current work by the OECD Observatory on Public Sector Innovation on foresight as a driver of stakeholder engagement: “Strategic foresight helps to mobilise and mediate stakeholders’ participation and co-creation around the exploration and debate about plausible and desirable futures” (OECD, 2023). Similarly, this diversity is reflected in European initiatives, ranging from the Deep Tech Training Initiative (https://www.eitdeeptechtalent.eu) — focus on technology literacies — to the New European Bauhaus (https://new-europe-
Our research concludes that especially in the case of the creative sector — generally assumed and expected to inspire new imaginaries, hence alternative futures — future work in the CYANO-TYPES project should take this diversity of future-related innovation narratives into account as it reflects not only stakeholder diversity, but also a range of (new) socio-technological conflicts. The general availability of data-driven platforms capable of performing a range of applied research and design processes across creative sector value chains (generative ai) has upset many established assumptions regarding the role of technology in creative processes, effectively demanding a fundamental reassessment of human-machine relations with wide-ranging economic and legal (authorship/copyright) implications. How these conflicts are framed, how they unfold, and which (social) institutions can and will be created to address, structure, and govern these conflicts will have far-reaching implications for the creative sector and the organisation of future skills-related initiatives. We are convinced that the creative agency model we outline below offers an effective way to map and negotiate these conflicts.

We expect that educators will continue to use a wide range of different terms to talk about learning. There is not yet a common, shared language to talk about skills, nor is there a shared foundational narrative. Maybe there is no need for that, and the diversity of ways of speaking about learning simply reflects the diversity of backgrounds and skilling contexts. It should, after all, not come as a surprise that practice-oriented vocational education and research-oriented academic learning do not always speak the same language. What we have found, however, is that the interest in impact — what is the role for creatives in addressing the challenges of our time — has shifted the learning conversation across contexts: from having knowledge to being able to act on such knowledge and make a (measurable) difference.

How we design curricula, define competences, identify skills and organise learning is based on what we know about the contexts in which the outcomes of such learning are expected to be used to create a wide range of possible values — cultural, economic, social. How we approach the different domains of value creation is itself subject to change and a matter of contestation. The growing awareness and appreciation of the value of care labour, a hard-fought victory of feminist activism and research, is a case in point, as care work was long (and still is) marginalised — in analysis as well as in practice — by the assumption that labour in sites of production was more important than labour in sites of reproduction. In some sense, the type of value creation occurring across the creative sector cuts across such distinctions, since the creation of experiences combines the creation of concrete products and services with the creation of future experiences to be made in the course of their use. We are therefore convinced that reflections on future skilling in the creative sector will also be relevant to the reimagination of value-creation in other areas.
Knowing that we are not alone in having to offer the full range of future skills helps focus on our respective strengths and complementarities as we define what it is we should focus on. It also calls attention to the relationship between how our different organisational contexts affect how we imagine the future of learning and the range of future skills. Here we have taken inspiration from SITRA, a Finnish innovation agency, whose report on “competence ecosystems” highlights the need to un-learn mental models as a key element of skilling processes, and gives workplace-based learning a central role as “new competence is gained outside the education system” (SITRA, 2022, p. 6). This changes the conventional focus of the skilling conversation — in our view: the relationship between learner and organisation in the organisational context in which we ourselves act — and shifts it to processes with which we are a lot less comfortable: what is happening outside our own organisational contexts, beyond the institutional and methodological boundaries of learning as we know it. Our research therefore has followed a “transcontextual” (Bateson, 2022) approach, focusing on the relationships between overlapping (individual, organisational, ecosystemic) contexts of learning: “The term ‘transcontextual’ refers to the ways in which multiple contexts come together to form complex systems. It allows for a concentration on the interdependency between contexts that give resilience to both living and non-living systems. Transcontextual description offers insights into where contextual overlap is reinforcing the status quo and where it is loose enough to initiate shifts” (Bateson, 2022). In this approach, triple loop learning becomes a way of moving across such a space of possibility to better comprehend how we may commensurate different spaces of learning and the logics and values that are relevant in these spaces.

As such a space of possibility, what happens across the competence ecosystem is framed by stories (narratives) that anticipate the roles we can play and the scripts we have available for our (inter)actions. Most fundamentally, however, it needs a shared conceptual idiom: beyond invocations of “learning” and “skilling” or “competencies” and “capabilities”, how do we frame the conversation, if the goal of framing is to turn the space of possibility into a space of engagement in which everyone has a role and a voice? And if the “competence ecosystem” is not subject to a single logic of governance, but a dynamic space of possibility, it makes sense to keep track of the state of play by naming the initial elements of a conceptual constellation likely to expand in the process. This is how the research method strives to link work in the network to the current moment of transformation: the soul-searching across the creative sector following the introduction of new generative socio-technological systems has involved renewed attention to definitions of cognition and intelligence, but also the value of creative expression and the possible impact of automating such creative expression. If the language we share is in flux, and we attempt to follow and facilitate change, the best we can do is to create a dynamic map of the terms at play to accompany our collective learning journey as the analytical scope of every one of the terms is affected by the context in which it is used — individual, organisational, ecosystemic.
Activities

In this section, we briefly summarise the design process for our future skills scenarios stakeholder workshop series and their outcomes. CYANOTYPEs is all about future skillsets — to bring everyone on board, we introduced how across the workshop series we explore key developments driving the need for new skillsets. We then engaged (via a shared online document) with a short survey (to be used for in-depth interviews later), focusing on the what (how do you, as individual and/or organisation, define a “future” skill), when (what is your timeframe for future skilling), and who (who are your skilling partners/co-agents) of skilling processes. Participants explored major European competence frameworks to assess how these “reference curricula” could possibly help describe what they do in their own contexts in ways that allow for comparative analysis across contexts. The implementation (and iterative development) of each of these frameworks is hosted by “communities of practice” (CoPs) that include several hundred members from across the sector and beyond, offering CYANOTYPES (whose organisational members coordinate some of these CoPs) unique opportunities to share outcomes. As a first outcome of these stakeholder workshops, a creative agency model was developed that integrates these models and aligns their core principles with registers of creative agency. In the end, the main differences (hence our proposal to design a creative agency model to reframe the conversation of learning and future skills) are the conditions of our individual and collective agency and what we can do to enhance it in and across given and new contexts of learning. Similarly, the idea of a competence ecosystem that includes but is not limited to the individual learning contexts we are in now is a reminder that such ecosystems do not simply exist, but that we (can) build them as we go — strengthening our ties, sharing learning resources learners have access to, involving others in the processes of training and verification.

Outcomes: A Creative Agency Model

Our research links this interest in broadening the scope of agency even before focusing on “creative” agency with another critical interest, the broadening of the scope of what is considered a site of learning. We are convinced that learning occurs in ecosystems — the multiplicity of material contexts in and across which we learn — that are capable of renewing themselves (SITRA, 2022). Such use of the metaphor of the “ecosystems” is not an attempt to simply and superficially green a conversation about learning but an acknowledgment that we can no longer afford to separate our thinking about education from questions about the sustainability of what we do. To ensure that such ecosystemic concerns are part of our conversation, we have adopted a triple loop learning framework that combines individual, organisational, and ecosystemic contexts of agency and expression in an effort to facilitate our reflection on future skilling and agency across these contexts.
Future skilling has to address these dynamics: the contingency and context-dependency of skillsets (what is futural depends on context). By definition, this links the identification and implementation of future skilling areas to questions of transformation. While the triple transition model usefully emphasises the interdependence of technological, ecological, and social processes of change, it does not offer a model of creative agency to guide future skilling efforts. In the transversal model adopted to frame our analysis, transformation is understood as a combination of 5 fields of action. Each field of action can become the lead dimension (depending on the skilling context and the context’s location in the wider competence ecosystem), and the other focal points can then be used to identify concrete options for action. Because they focus on different social contexts, these fields of action also refer to complementary dimensions of social impact. At the centre of all transformation processes are people acting individually and collectively. We have therefore explored and developed complementary forms of collective, public, data-based, value-creating and sustainable action — a multi-sided model of the agency (and intelligence) of individuals and collectives. This essay introduces the model and closes with an outlook on the role such a model might play in a future skills conversation.

Collective agency refers to our ability to act-in-common, in new forms of cooperation, beyond existing actor constellations and organisational boundaries, and in new roles to assume new responsibilities, shape collective ideation, decision-making and participation processes. The collective extends beyond the human: what “we” can do depends on how we as human beings relate to the many forms of non-human agency around us.

Fig. 2
The integration of non-human agency into creative work is not only a consequence of powerful software machines that appear to be able to automate creative expression. The question of how we can identify, give visibility to, and integrate into our decisions the agency of animals, bacteria, plants, and ecosystems has become a growing concern across the creative sector. Our creative agency model here links with research into new imaginaries (such as the “holobiont”) that might facilitate such an expanded understanding of agency (Clarke, 2017).

Public Agency

Across the creative sector, public actors play a central role in the development and implementation of educational processes and systems — from an “agile” state that reorganises its processes to the (creative, artistic) interactive and immersive presentation of ideas in public spaces. Many educational institutions are part of the public sector, linking them more closely to the dynamic of public sector innovation than is often acknowledged by creatives eager to insist on the autonomy of their respective efforts. Perhaps more importantly, the creative sector depends on the existence of public life in “spaces of appearance” (Butler, 2011) and shared experience. The recent experience of a pandemic demanding public health responses that ended up restricting public life have served as a reminder of the fragility of public life, as have the difficulties in governing social media once expected to provide transparent infrastructures to build such public life in the digital sphere.

Fig. 3
Non-Human Personas.
Reflecting concern over changed conditions of change — the acceleration of transformation processes, the mutual amplification of disruptions in a polycrisis —, this model accords anticipatory innovation a key role in public sector innovation. Here, public agency includes the full range of exploratory, radical practices, many of which originate in and across the creative sector or are amplified in its aesthetic practices. For a critical assessment of the popular self-image of arts and design as disruptive drivers of transformation, see Geoff Mulgan (2023).

Data-Driven Agency

Data collection and analysis create a wide array of opportunities for intelligent processes and systems, from the development of data competencies to the design of data spaces as contexts for new forms of communication, organisation and value creation. Enabled by a range of innovation infrastructures (currently referred to as “deep tech” in innovation and policy narratives), data allows us to interact with systems and is therefore key to any aspiration to socio-technical systems design.

Data analysis needs models: “We’re always told that humans make bad decisions and that more data is better. But this is backwards: people are actually good at decisions because we use mental models and can envision new realities outside of data. Great outcomes don’t depend so much on the final moment of choosing but on generating better alternatives to choose between. That’s framing” (Cukier, Mayer-Schonberger & de Véricourt, 2021).

By “data-driven agency” we do not simply refer to the need for a range of technology-related literacies, but to our capacity to frame, the need to create models that inform how (we want) these technologies (to) function.
Value-Creating Agency

The relationship between “the arts” and “the creative sector” has been fraught in no small part due to concern over the entrepreneurialisation of aesthetic practice, the (undue) influence of commercial markets, and the integration of creative labour into the dynamics of a global platform economy. While any analysis of the effects of platform economy dynamics on the future of creative labour (and agency) are far beyond the scope of this essay, current research highlights the extent to which this platform economy does not operate according to the logic of markets but the logic of rent (O’Reilly, Strauss, & Mazzucato, 2023).

Cutting across (and reframing) this conflict is a shared concern with the scope of what we mean by value and the processes of value creation. So beyond entrepreneurial action (start-up/succession/financing), an emphasis on value-creating agency broadens the view to include dynamics of value creation in order to better understand the interplay of different actors and (cultural, social, technological) innovation dynamics, so that they reinforce each other.

Regenerative Agency

Adding culture to expand the familiar triple model of sustainability has been an important step: ecological, social, economic, and cultural; without a change of perspective, there is no discovery of potential, without a change of perceptions, there is no creation of new spaces of action, without shared narratives, there is neither individual freedom nor social cohesion (UCLG, 2018; Hawkes, 2001). As we write this in late 2023, there is a shared sense that it might be too late for action that is merely sustainable. Instead, we need to find ways of acting that allow us to repair the damage already done: hence the shift to regenerative agency as a core field of current and future creative work.
Coming full circle, Anna Atkins’ interest in algae — invoked by us to approach the question of non-human agency more generally — resonates powerfully with the current interest in regeneration. Non-human actors are likely to play a major role (algae might be able to metabolise microplastics, for example). Like her pioneering work, regenerative agency calls for new alliances not only across the creative sector but across fields of knowledge — natural-scientific, technological, etc. — so creative actors can fully embrace the possibilities of acting as drivers and designers of change across the sector and beyond.

Conclusion

We know that we are not alone in exploring the future of creative agency; our interest in models aligns with research efforts such as the Berlin Institute for Cultural Inquiry programme on models: “A model [...] can elicit desire, provide understanding, guide action or thought. Despite the polysemy of the term, models across disciplines and fields share a fundamental characteristic: their effect depends on a specific relational quality. [...] They can indeed be considered as intermediaries between the theories and worlds they help constitute — as creative, partially autonomous tools for understanding and as media of theorising and worlding” (ici Berlin, 2021). To test and validate the utility of the creative agency model, a CYANOTYPES playbook is now being designed to facilitate the co-organization of pilots involving specific audiences, sites of learning, and curricular modules. The following five principles guide the development of these pilots and summarise a research ethos we hope will resonate with (and be amplified by) educators within and beyond the network:

I. Make Creative (Sector) Diversity Work
CYANOTYPES closes the gap between what we do as educators in our respective educational institutions and who we work with in our regional competence ecosystems: where do the learning journeys we organise lead? Where do our graduates end up? Who are the partners offering possibilities for shared and mutual learning? From the diversity of smaller and agile players around us, CYANOTYPES aims to support others in building collective agency — a capacity to analyse and act in common. If we want to educate in order to address societal challenges, we need to create spaces for playful experiments. So rather than pitting arts and technology against each other, the project aims to rediscover the diversity within practices and perspectives — both experimental cultures of engineering and playful explorations of tech across the arts.

II. Embrace New Geographies of Learning
CYANOTYPES imagines learning across the multiple contexts of life and work. Rather than a hierarchy of sites of learning linked in a chain, learners move across a continuous space of permanent and temporary sites of learning. Approaches to learning available at each site can be usefully combined and connected (micro-credentials) based on commonality and complementarity. Such movement — whether facilitated or entirely self-directed — fosters creative, non-linear, asymmetric thinking and can generate creative, non-linear, asymmetric outcomes.
III. Align Skills and Contexts
For CYANOTYPES, less can be more. Learning is not a zero-sum game — out with the old, in with the new. Instead, in its context-aware approach to learning — which always includes relearning as well as unlearning - all skills can acquire salience in new contexts of use, so their “futurity” is contingent. Cyanotypes is aware of needs and builds future skills readiness. But skills are “future” skills when they are aligned with existing and emerging contexts of use. To close the gaps between existing and future skills, we therefore need a better sense of what creates these gaps: environmental, social, and technological changes affect the value and relevance of what we know and can apply in and across contexts of use. Such awareness fosters comprehension of complex interdependencies and creates the conditions for active participation in the design of socio-technical systems.

IV. Build Trust to Be Affected by Learning
To learn is to be - to allow oneself to be - affected by who and what is around us, from the people in our teams to the ecosystems sustaining our lives. Because learning is fostered by sharing, trust, and solidarity, CYANOTYPES focuses on building mutual support across sites of learning so that artists and other creatives can become and inspire agents of change - in the sector and beyond.

V. Enter the Triple Loop
For CYANOTYPES, there are no technical systems whose novelty simply creates “skills gaps” to be closed. What we see as “technology” exists within socio-technical systems, and we create individual technical objects so they work within such systems. Collectively, we decide how they work, and for whom, which in turn defines the gaps to be addressed. To bring into view the interplay of what happens to us individually, the organisations offering sites of learning, and the ecosystem across which our learning journeys are spread, CYANOTYPES enacts a triple loop model of learning. This allows us to move beyond a “deficit” model of learning (name and close gaps) into an understanding of learning based on future agency built over the course of learning journeys. It is based on the conviction that learning happens no matter what we do — but also that it is a matter of design — of how we relate to ourselves, to the world around us, to the types of knowledge that are made available and co-created in the process of learning, and therefore harbours tremendous opportunities to build shared futures. Our interest in agency — based on an understanding of learning based on the anticipation of future agency — reflects both hopes and concerns regarding new technologies, and is our way of responding to the call for critical assessments of the role these technologies can and should play in the way we organise learning. If technology cannot (or can no longer) be approached solely in terms of distinct objects but as an “ecology of technology” (Bridle, 2022), the distribution of technology — our technological condition is essentially a “condition of distribution” (Rossiter & Zehle, 2017) — offers us new opportunities to approach and comprehend the distributions of agency and intelligence more generally. It is our hope that the creative agency model can play a useful role in the conversation on future skills.