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AWARENESS-BASED COLLECTIVE CREATIVITY

A studio-based practice for future-making

Arawana Hayashi and Ricardo Dutra Gonçalves

Today, São Paulo, Brazil (Ricardo)

Teenage students at the school where I teach often ask me to join their TikTok videos. These short videos (less than a minute) are usually about food, dancing, lip syncing, social media challenges, tutorials, or lives. After a long day at school and I get home, I notice the easiest low-demanding activity is to scroll through social media. And there I am, tapping video after video. The videos curated for me are often about the same things: a TV presenter I find funny, some guys showing off their bodies on a beach, wild nature animal chasing, and pop singers. For some moments, I switch my attention from a video to how it feels in my body to be watching it. It often feels like I am hooked, and longing to find a way out.

Specific aspects of our modern life (e.g., how we use social media, and the existence of social media itself) reveal a lot about what we value, how we collectively shape social infrastructures, and how we envision the future. We notice that often these infrastructures are shaped not by us but for us. A few years ago, TikTok was unimaginable. Then, someone imagined it. Today, it is an efficient, goal-oriented, large-scale phenomenon, presumably to help us feel connected to some part of a global community, meanwhile keeping us “hooked” online—hence, prone to advertisement. In the book How to Do Nothing, Odell (2019) says that the “attention economy has a financial incentive” to keep us constantly reacting and producing, in a state of individualized anxiety. This state of distress seems an unlikely ground for creating healthy futures.

Financial incentive has contributed to a society that values growth and rational solutions to problems. GDP rather than well-being is the indicator of progress. For many, progress has been synonymous with future-making. Leaders with the power to make decisions that affect the future often do so through a lens of problem-solution: that is, trouble-shooting and controlling risks through change management. Many institutions feel the demand to compete, grow, and scale, haunted by the unsettling feeling of always lagging behind far-reaching goals. This pattern affords very limited space for relaxation and openness, which many experience as necessary ground for meaningful creativity.

This chapter results from a four-year collaboration between Ricardo Dutra Gonçalves, a Latin gay social designer, and Arawana Hayashi, a Japanese-American choreographer. We
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aspire to contribute to the work of many individuals and communities on the planet today who are trying to shift from unsustainable practices to more holistic, inclusive, and compassionate patterns of thought and behavior. As part of the Presencing Institute (an action research lab addressing some of our most pressing global challenges), we have explored future-making as a collaborative creative effort with diverse populations in Latin America, the United States, China, and Europe. Drawing concrete and situated examples from our own creative practices, we share our findings that a studio-based and socially creative practice can be a basis for future-making and social transformation.

Private and personal studio spaces have been a common feature of the solo visual artist (Hoffman, 2012). The studio has been the space for experimentation: where new ideas, feelings, and experiences are brought to light. Departing from the conventional notions of the artist’s studio space, we are inspired by what an expanded creative studio practice could be. For us, a social designer and choreographer working collaboratively, the creative practice is not a solo experience primarily but rather social and collective. Collective creativity moves away from the solo genius of the individual toward an acknowledgement and uncovering of the creative potential inherent in all people. The studio can be a place for society-making, where everyone is a co-creator, with no exceptions. In this frame, the studio is no longer limited to the formal arts. It becomes a place of inclusion for many peoples’ expression, whether they identify as artists or not.

Our premise is that we are all co-creating social reality in our daily, family, and work lives with every decision, conversation, and action. All living beings on the planet are interconnected; therefore, the social future-making is a co-creative process. Because creativity is the purview of artists, we could call this approach “art in everyday life” (Trungpa et al.1975). This is both a view and a practice. We hold this view of how our everyday life can be lived in a creative and artful way. But we need practices to bring this view down to earth, to make it manifest.

This chapter begins with reflecting and re-framing some of the core principles often tied to a progress-oriented future-making. We then share a few studio experiences of future-making as a creative act. We consider the where (the studio space), what (the studio in action), who (collective creativity), and how (materials, tools, and languages). We conclude by connecting a studio practice with everyday life future-making. The short vignettes introduced into the chapter are the authors’ first-person narratives of experiences, meanings, and memories around a topic.

Reflecting on and re-framing core principles

As we stand in the present and look out into the emergent future, what are the essential qualities that drive our intentions for shaping a world forward? What kind of world do we actually want for our children and future generations? Here, re-framing is based on a premise that there are diverse ways of knowing, being, and doing that have often been ignored or under-explored in the field of future-making (Montuori & Donnelly, 2017). What we will introduce does not deny objectivist, data-driven, progress-oriented approaches prevalent in research and science (Gray, 2014). Instead, we intend to provide a balance to these views and to expand possibilities. Our intention is to highlight embodied, relational, and creative forms of knowing which have long been part of many art practices but have been historically sidelined and marginalized in social system change efforts.

We begin by looking at some of the attitudes and practices that have been part of many approaches to future-making (see table 35.1): the future as a goal, often led by others (e.g.,
government, leaders), focusing on solving problems through planning and control, in search of perfect solutions, based on notions of continuous growth (Smith & Ashby, 2020). We list some of these under the frame we call From. By naming them, we hope to reflect on underlying mindsets, values, and motivations that produce particular results. Often these patterns express a Western, objective, male-centered approach. We have seen these patterns across sectors in ourselves and in the groups we work with. We then introduce values that many change-makers are cultivating today. We call this frame, Toward—to indicate a journey that includes broader ways of knowing, being, and becoming (Gray, 2014; Santos, 2018).

### From problem-solving/fixing toward leaning in with curiosity

When we approach future-making, a common frame is: this is the problem, and this is the solution. Problems and solutions are tied together with an objective of fixing the situation. Fixing is commonly fueled by a desire to get things right or to get rid of discomfort. This is only natural. However, there are many reasons why this framing could fall short, resulting in a quick fix that does not address the deeper causes of the problem. One reason is simple linearity. Societal and organizational problems may be too complex, created by multiple causes and conditions over generations and historic periods (Meadows, 2008; Rittel & Webber, 1973). Solutions that only fix symptoms can have both upsides and downsides and often can cause more problems in the longer term (Crowley & Head, 2017).

What if we take a step back and frame this so-called problem as an invitation? We can approach this obstacle or challenge as a natural part of a creative process. We can acknowledge the discomfort in the situation and still approach it with an attitude of curiosity, creativity, and inventiveness. In our work with Social Presencing Theater, an action research methodology developed by the Presencing Institute, we cultivate embodied knowing as a way of investigating problems with openness and curiosity. By leaning in with curiosity, these “problems” can become a source of creativity and celebration. By framing them as learning challenges, we invite the opportunity for something new and fresh to unfold.

### From helping/blaming others toward enacting creative agency

Within social systems, power dynamics are a major force. Unequal opportunities to participate are part of the current process of co-creating society (Freire & Macedo, 2012; hooks, 1994; Santos, 2018; Scharmer, 2018). In our work with systems thinking and sensing, the unhealthy dynamic between power holders and marginalized groups becomes painfully apparent. We see this manifesting in a fixed identity of victimhood. That is, when marginalized groups are regarded by those of privilege as the ones always needing help, the potential of those far from the centers of power is not acknowledged. When those with and without power blame others,
the unintended result is a loss of agency. Both victimhood and blame destroy the soil of creativity. What if, instead, we could open up possibilities for creativity through agency?

In our praxis, we recognize that all players in a system are co-creating and co-shaping that system across space and time. We recognize inequality of power, the oppression of colonization, and unjust power dynamics. We are well aware that those with policy decision-making power have too often not considered the well-being of the Earth and all its beings. Societies are an expression of the intention, will, action, and imagination of us all. This collective intention, will, action, and imagination can be called creativity. We collectively create social reality moment by moment by our choices: in our thoughts, speech, and actions. Living is a constant change process—a creative process. But are we creating the worlds that we desire? Moving from mindsets that lock us into helping from pity or blaming from resentment toward acknowledging our inherent creativity is an open door to innovation and agency.

From imposing change on others toward co-creating based on collective wisdom

Earlier this year. New York, USA (Arawana)

On a zoom call at the beginning of the year I heard a school leader in Hawaii speak of “graceful” change. The word seemed appropriate for the soft beauty of Hawaii, but incongruent with the prevailing break-downs and sense of almost desperate urgency in the education system in the US. However, the word caused me to pause and reflect. When I looked up the root of the word ‘graceful’ my eye picked up—‘pleasing quality, thankful, gracious, freely given unmerited favor, God’s help.’ Those words evoked my experience as a dancer improvising with others. In improvisation, we do not know what will happen next. We attend to the open space of not knowing. Attending in this way called forth a sense of presence, a knowing that was not limited by ideas. It was not manufactured by any one of us or even by us together. The space itself seemed to be full of grace that guided us from where we were into the next moment of the dance—into the future.

Exploring the topic of co-creation based on collective wisdom assumes that people are able to collaborate from a place of awareness and collective wisdom. Based on years of practice, we have strong evidence that co-creation arises from awareness and that awareness contains wisdom: a knowing of what is true and how to proceed. This knowing is not based on job title, level of education, or cleverness. It arises from open-mindedness to the unknown (i.e., fresh ideas and experiences) and open-heartedness toward others. Wisdom knows the truth of a situation. Creativity arises from being completely present in the very moment of experience, not trapped in the past or conceptualizing a future. Agency arises as the “true move” (Trungpa, 1996)—an action or word that arises, not from preconceived ideas, but from open awareness.

In groups and teams we can relax our individual agendas to include others and the collective wisdom. Our work with the Presencing Institute and practices such as Social Presencing Theater cultivate a healthy social field, that is, a field of relationships where everyone’s voice is included. Presencing is the capacity to sense into emerging possibilities (Scharmer, 2018). When open awareness is the ground of experience, we can feel our interconnectedness and operate from the wisdom of the whole. Innovation arises naturally and without contrivance from the spacious social field, which is quite the opposite of some people imposing change on others.

Probably we have all been in situations where those with the louder voices or those who think they know best dictate what the committee or team or organization should do to
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change. Maybe we see this behavior in ourselves: a tendency to feel that we know better than others what is good for the group and attempt to get others to change. Maybe we think that this is what leadership is about: getting others to change in the way that we think is best. An attitude that some people (we leaders, we teachers, we change makers) are wise and others (them—our staff, students, clients, family members) are not certainly lacks humility, is not based on mutual positive regard, and is not true.

In education, Freire (Freire & Macedo 2012) refers to the conventional ways of teaching as a “banking model.” Freire speaks of how students are fed with information as if they were containers. The banking definition bears resemblance with Mezirow’s definition of transmissive education (Mezirow et al., 2011)—in which knowledge is transferred from teacher to student. This model of over-emphasizing the role of leaders (e.g., teachers) indicates a view that leaders know the answer, which they tell other people. To value everyone’s contribution and unique resourcefulness is, hence, a means of transgression (hooks, 2020). In our creative practices, we speak of an inversion from a central leadership figure (or power holder) toward the inclusion of a multitude of perspectives from the margins and across a system. This is the move toward acknowledging everyone as partners in co-creating change and lifting the weight of responsibility from the shoulders of a single figure.

Our practice is to move from imposing change on others to allowing change to happen. We know that training in mindfulness, awareness, or other wisdom practices can cultivate, bring forth, and make more accessible this innate knowing (Nhat Hanh, 2008; Trungpa et al., 1975). Engaging in awareness-based creative studio practices is one way to recognize, cultivate, and gain confidence in this basic wisdom. Co-creativity arises as simplicity, insight, and indeed, grace.

From distant impersonal future(s) toward moment-to-moment emergence

Some years ago. New York, USA (Ricardo)

When I was a student in the program of Transdisciplinary Design at Parsons School of Design, I was introduced to a multitude of ways in which design (as an act of future-making) could be undertaken. However, some of these approaches (although intriguing) felt like delivering distant and impersonal futures. It was rare for me to feel like I could emotionally inhabit those futures. One professor once asked us to explore and speculate on the future of urban mobility in New York City. He offered us an unforgettable prompt: to look out for cues in the now of where (and how) “fragments of the future” were already present. I remember the situatedness of walking around Manhattan with a lens of an emergent (yet present future) towards what urban mobility was becoming. In my creative practice, I have grown to see future-making as an act situated in the present. In this way, future-making is based on emergence: that is, an ordinary and direct consequence from the moment-to-moment response to unfolding change.

Often visioning the future and setting goals can keep us separated from a sense that we can almost feel the breath of the future, if we may use that image. The future becomes an idea that has a separate life from our current reality. Most of us have experienced this gap between what we want to create and where we are now. The composer and consultant Robert Fritz describes so well the structural tension between the future desired state and the actual state (Fritz, 1984). In our work, this concept of the “fragments of the future” are present to each of us every day if we are listening and looking: in a bit of a conversation, in something we read in the news, in a podcast, in a walk in the woods. One Social Presencing Theater studio practice is the Seed Dance, in which we bring the sense of our future into our bodies. We create a seed
gesture. We plant a seed of the future, an intention, in our own embodied presence. Then that intention finds “fragments of the future,” ways to see the future in the present. Then in the studio, we begin to prototype small versions of our intention that clarify and empower our creative process.

From analytical forms of knowing toward relational, embodied, and creative forms of becoming

Being and knowing are placed in relationship to one another through the lens of becoming or what Heidegger called “being-in-the-world” (Heidegger, 1962). Future-making asks us to attend (or attune) to the emergent possibilities, seeds, and potential inherent in the present moment. Attunement demands an embodied knowing that allows us to sense into something emergent: an insight, feeling, sensation, thought, felt meaning (Manning & Massumi, 2014; Massumi, 2015; Petitmengin, 2007; Scharmer, 2018). Becoming reliant on our embodied felt experience implies that we trust our sense perceptions and value the direct knowing of our lived experience. In these ways, embodied knowing must also be situated within the context of relationality. To know (and to be) is always in relationship to one another, things, and places. That is what Thich Nhat Hanh (2008) refers to as “interbeing.” Drawing from Indigenous forms of knowing, our design research group at Monash University (Melbourne, Australia) usually speaks of the back-talk of materials, places, and things. That is, when we attune in relation to one another, a situation, place, or material might speak back to us. Noë (2006) writes about how perception is not something that happens to us, or in us. Noë (2006) says it is rather something we do. To perceive as to know is to know-in-action. And to know-in-action is to create, or do something. In this chapter, this is what we refer to as a creative form of becoming: that as human beings, we are creative by nature, and in every moment of action lies the possibility of knowing into what’s next.

Future-making as a creative act

Awareness-based collective creativity

Now that we have looked at some aspects of the paradigm shift that turns our attention away from problem-solving toward future-making, we can further consider awareness-based collective creativity as a definition of societal future-making. In one Social Presencing Theater practice called the Village (Hayashi, 2021), groups improvise using a very limited number of ordinary movements. Together they create a social reality. There is no particular goal, no definition of what a good social reality might be. Another practice, 4D Mapping, includes specific roles in a social system, such as an organization or a school system, and explores both habitual blockages and creative potential in that system. The invitation is to stay embodied and grounded, to let awareness expand out to include the whole social field, and to allow movement choices to arise from open awareness without thinking or planning. It is a practice in opening to what has not happened yet without controlling or manipulating.

These are practices in creating society (albeit, a tiny portion of society) from the perspective of the whole of the relationship field. They include the intelligence of the body and the space itself in the process of creating a collective social reality. These practices are examples of a training in awareness-based collective creativity. They offer insights and learnings that can be applied to the creation of good futures for families, classrooms, organizations, and communities. Studio experiences are the practice ground for future-making on a societal level.
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Creative studio practice

Some years ago. New York, USA (Ricardo)

As I left my apartment in Brooklyn, I was rushing through the snow in order to get to class on time in Manhattan. I remember the felt sensation of the icy cold, crowded subways, and quick moves of a life in New York City—the city where you can’t simply stop along the rushing streets without a clear sign of annoyance from another person. Coming from Brazil, it was my first winter (ever!). I was filled with (and moved by) the energy of the city. Down on Union Square, and rushing towards our building on Fifth Avenue, I was relieved to escape the cold, going up the lift and thinking of when I could remove my coat. Then, I suddenly burst open a large white door on the 16th floor. The open warmth of a spacious room, no walls, filled with materials, colleagues chatting over coffee, and glass windows overlooking Manhattan. Those were the days I first encountered what a creative studio space could feel like.

Practices in a studio space can be created and engaged in as experiments and prototypes in societal future-making. Over the past several years we have experimented with creating studio experiences that include a diverse population of people: artists, educators, children, social change agents, and others. They have been spaces for inquiry, for trying out, for making and refining. But also, they have created lively social fields of deep personal relationships and creative collaborations. In this section, we zoom in to explore a bit more at the ground level what this social creative practice might include—considering where, what, who, and how.

Where: The studio space

Although our creative practice has been mostly decentralized around various locations globally and online, these spaces in specific locations have become hubs for convening creative action. They have included a timber-constructed room in Denmark, a large co-working space in Shanghai, a site-specific restored Hacienda in the Yucatan Peninsula, a design studio in New York, a school library in South Central Los Angeles, and a living room in Berlin. More recently, during the pandemic, our “studio” has been in Zoom. But even in this context we can feel presence, connection, and co-creativity. We know that a conducive space becomes a landing strip for ideas. Each space has unique qualities, and yet they share something in common: spacious accommodation. They are open, energetic, and welcoming. The spaces respond to situated needs, evoke in people a sense of the collective, and offer the tools (tangible as well as immaterial) for experimentation.

What: the studio in action

Today. New York, USA (Arawana)

Today the space around my desk became my studio. I did a Stuck practice (from Social Presencing Theater). I have had for some time an intention to create a particular shift in my life, but mostly experience a strong resistance to changing behaviors. I notice that I have all sorts of rationales and judgments about this. So today I let those go to simply embody the shape of the ‘stuck’—the felt sense of it in the body. It was not comfortable, but it was a very familiar home ground. I stayed solidly planted in this shape for a minute or two, simply being with the feeling of the body. Then movement began—first my neck moving side to side, then upper back. I was leaving the solid familiar ground and floating out into the ocean of not knowing. The movement was emerging, but I had no idea where we were going with it. This continued for a minute or
so. Then quite faintly the space seemed to be calling me to a new place. My body followed the calling and then stopped in a new shape. We had reached a new shore. I rested in the new shape, and then the words, “sun and rain are pouring down” arose. I picked up my journal and wrote, “get allies to support you in making this shift.”

When people gather in a studio space, they often engage in the act of making. By making, we simply mean learning by doing—and doing from learning. Inspired by our colleague Lisa Grocott at Monash University, we learned to think of making in different ways, such as: make visible, make tangible, make aware, make known, make sense, and make meaning (Gonçalves, 2016; Grocott, 2022). Making is intertwined with a reflective attitude—what Schön (1983) called “reflection-in-action.” We also attempt (not always successfully) to practice what Freire (Freire & Macedo 2012) called “critical reflection” by recognizing that unlearning, undoing, and unsettling are necessary in the long journey toward social justice. By critically reflecting, we attempt to infuse the act of making with criticality, diversity, inclusion, and respect toward everyone’s contribution.

Who: Collective creativity

In a future-making workshop in Mumbai (India) around the future of education, we initially framed the invitation toward school teachers. A colleague, Sonali Ojha, said, “let’s instead invite anyone interested in learning.” That was a turning point when two insights became visible. First, everyone’s field or background is welcome. We’ve collaborated with artists, designers, architects, change makers, entrepreneurs, educators, social workers, and teens, and the list goes on. In this workshop people play multiple roles: teacher, parent, student, and leader. Second, the transdisciplinary nature of people working together alters the process and the outcome. Working together across different areas and backgrounds, we created a new knowledge, beyond the boundaries of anyone’s particular discipline or expertise.

How: Materials, tools, and languages

In a creative act, we work with something—shaping it into something else. In our case, we work primarily with our bodies in combination with other tangible materials (e.g., photographs, video, clay, drawings, and poems) to evoke sensorial, felt, embodied experiences. Earlier in the chapter we referred to the social body—a group that feels and acts as a collective. The social body is itself a living being, not simply a collection of individual parts. Families, working teams, or parts of larger social systems (e.g., all teachers in the country, nurses in a public hospital, passengers on a plane) are social bodies. Bodies and social bodies are our “material” in systems transformation. Bodies express themselves in still shapes and in movement. Stillness and movement happen in space (i.e., location) and time (i.e., duration). These are our materials and also the language (how we communicate) in our studio.

Simple activities such as walking slowly or quickly affect the environment. How we arrange ourselves in a room can express creative possibilities or shutting down. We know change because we experience linear time (Rovelli, 2019). Time (beginning, middle and end) and the literal space in a room are almost concrete, tangible elements. Yet, time and space are also the open ground of the present moment. Time as a mark of change contrasts with the notion of oneness—and awareness-based collective creativity is based on being in the now. Space is not only the perceivable place but is also the expansive and open experience of limitlessness.
Awareness-based collective creativity

Our experience of time (i.e., linearity or nowness) and space (i.e., defined or open) shifts and varies. The co-creative process invites us to engage in the fullness of time and space.

In studio work we also use clay, photographs, video, poems, and drawings. We notice that different materials afford different experiences within the scope of making visible the intangible. For instance, we noticed how sequenced print photos placed one after the other communicate a felt experience of movement and shift. Writing three-line poems (haiku inspired) brings to words an ineffable felt essence of embodied, pre-verbal experience. Recording videos and inviting narratives added as voice-overs heightens awareness of details of embodied experience. Modeling clay gives shape to an intention that could not be put into words. Although it was felt in the body, using clay in our workshops has enabled groups of people to stay longer with a felt unnamed experience, adding an extended reflective time between an embodied experience and using verbal language to describe it.

Opening up toward an ending

From the future-making experience in the studio we can begin to see our everyday life as an invitation to engage creatively in household and work settings. The studio experiences of collective making are powerful and lead to insights on how to view family and work colleagues as co-creators. With awareness that we are always engaged in society-making we can begin to consider our attitudes, speech, and actions with more care. These studio practices that include non-doing and allowing space emphasize attending with open perceptions to the details of our everyday life. We can begin to notice the power and beauty in everyday experiences. We can feel the inspiration and challenges with more clarity and energy. We can be in touch with our own agency to engage creatively in future-making. The studio experience permeates our everyday life. The practices build skills needed to co-create healthy futures.

Using the analogy of a boat leaving the shore, we know that when a boat sails out, there is a sense of the expansive unknown, until it meets a new shore. The frame of moving From/Toward is like that boat. We are leaving the shore, yet we have not arrived. Our boat takes us away from the notions of progress that are tied to infinite growth and conventional understandings of success. By sailing away from these notions of progress, we begin to see a hazy horizon; where new frames of being, doing, and becoming begin to appear just like foggy islands out in the mist. As we travel along, we come to the realization that future-making is indeed a creative act. That feels like a new shore where we can anchor our boat for a while.

As we disembark on that shore, we encounter the notion of awareness-based collective creativity. We are inspired by the realization that creativity is an intrinsic aspect of who we are (already, with no exceptions, every day): in our families, work, and society at large. We understand that creativity can be based in a sense of awareness of the whole, that which is in-between and all around us. Including, for example, people, places, and things. On this shore, we also encounter a hut. When storms form, the hut can be our protection. When the sun comes out, we can have our meals together under the hut’s shade. Our understanding of a studio is just like that hut. Studio spaces can hold a positive view of the future and include a wide range of diverse voices and approaches, particularly inviting those who are most marginalized in society (e.g., people with developmental disabilities, Mayan youth in Mexico, students of color struggling in urban high schools). They are the future-makers with whom we learn and create.

If we regard each day as an opportunity to create a good world for our children and the generations to come, that perspective gives us energy and courage. Of course, at times it feels discouraging. Of course, it feels overwhelming. Future-making is full of challenges. But
challenges are not demoralizing. The invitation is for us to continue to bring awareness to the process and to celebrate the moments of grace. In order to engage in future-making through these studio practices and awareness-based collective creativity, we must integrate social, embodied, relational, and creative forms of knowing, being, and becoming. As uncountable boats sail out, we are curious to know the world(s) we are about to create, discover, and stumble upon.

Notes

1 In this case, the use of “we” refers to the notion of everyone as a co-creator. That is, in this chapter, we take the point of view that society is a product of everyone’s collective making. However, we acknowledge how power structures sustain oppression and diminish the voice of marginalized groups within the collective whole. In other parts of the chapter, “we” usually refers to us—the authors.

2 Santos (2018) puts in perspective the prevailing principles of what he calls “epistemologies of the North” in the face of the urgent need for making visible the ways of knowing of the ones that have been most marginalized—by calling upon “the end of the cognitive empire” he introduces the “epistemologies of the South.”

3 In Sheryl Sandberg’s best-selling book Lean in: Women, Work, and the Will to Lead—the act of leaning in seems to be in service of a path toward “success” without considering context, power, positionality, or class. What we mean by leaning in is not tied to any notion of pursuing success (in a conventional way) because, for us, the act of leaning in cannot imply a goal. To lean in is, instead, a step into the unknown—fueled by a sense of curiosity.

4 Our work with systems thinking and sensing is informed by the action research carried out within the Presencing Institute—founded at MIT by Otto Scharmer and colleagues. The Presencing Institute builds on the systems thinking work of researchers including Donella Meadows, Peter Senge, and Jay Forrester.

5 Dunne & Raby (2013), Montgomery (2016), and Candy and Dunagan (Candy & Dunagan 2017) have taught classes and seminars at Parsons School of Design—and infused their forward thinking around speculative design into the practice of students and faculty.

6 The Emergent Technologies Research Lab is an interdisciplinary research lab conducting research into the social, cultural, and experiential dimensions of the design, use, and futures of new and emerging technologies. The Lab is a part of Monash Art Design and Architecture.

References


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