Imagining Futures Literacies: A Collaborative Practice

Derek Gladwin
The University of British Columbia

Rachel Horst
The University of British Columbia

Kedrick James
The University of British Columbia

Pauline Sameshima
Lakehead University

Futures literacy is a concept that has gained increased currency over the last decade and has been taken up by, for example, organizations like UNESCO in global initiatives to improve our capacity to performatively imagine the future and alter the course of dominant narratives. Rather than thinking singularly about what may constitute futures literacy, this article performs a collaborative discussion, a relational exercise among scholars in the field to explore and excavate various meanings and activities that might contribute to an ongoing body of knowledge, simultaneously attempting to understand and reframe it through a series of inquiry questions. In a collective response to these inquiry questions, the authors suggest a critical union of these pluralities as futures literacies to create a generative and interdisciplinary space that has much to offer as pedagogies, narratives, difference, and posthumanist ontologies for how we transform these concepts and practices in educational contexts and beyond.

Keywords: futures literacies, transformative education, social change, holistic education, narrative, posthumanism

INTRODUCTION

Concern for the future has remained ubiquitous throughout history. But given the current situation in the year 2022 and beyond, it comes as no surprise that the future has an increased sense of immediacy. A global pandemic has significantly affected global populations, promising any number of future sociocultural consequences, in addition to the obvious physical and mental health of humans. Climate change entangles with human politics to create fires, flooding, food shortages, and an array of current and future disasters. Human invented technologies proliferate at an ever-increasing rate, inspiring for some, the hope of *solutions* to our "wicked problems," and for others, the existential despair that technology has become the ultimate problem (Buchanan, 1992).

The futures that materialize before us contain powerful and performative sway in the way possibilities and probabilities unfold in the future present. The future, as Polak (1961) stated, "lies concealed in today's images of the future" (p. 8). History "can be read," according to Boulding (1988), as "a succession of acts of the imagination, subsequently inspiring social action in the direction of the imagined" (p. 116). We cannot ultimately know which "acts of the imagination" will take hold in future reality, nor how these imaginings will be enacted. But as researchers of possible literacies of the future, we advocate for the cultivation and capacity to imagine difference, both collectively and collaboratively, and actively seek out spaces to do so. Futures studies uses methodological imagining, applying social and technological advances and forecasting – to imagine, anticipate, and plan for possible futures.

Drawing on this work, but focusing on educational frameworks, *futures literacies* is a proposed curricular intervention that examines future(s) as a possibility and as a context for inquiry across disciplines, ontologies, and epistemologies. In this article, we wish to bring the discourses of multiple and new literacies to bear upon our theorizing of futures literacies as a critical plurality, with all the possibilities this approach affords within a diversity of epistemologies and methodologies in education discourses. We approach this topic obliquely as a discussion rooted in interconnected informal queries and reflection. Our aim, then, is to create a generative and interdisciplinary space to explore the ways pedagogies, narratives, difference, and posthumanist ontologies might assist us in considering and then rendering some acts of the imagination as a way of performing the future in the present.

Synthesizing scholarship on future(s) as a practice of meaning-making, interpretation, and representation, we explore, in an intentionally informal and discursive format, futures literacies as a concept that espouses more critical engagement with power and the need to reconsider our dominant future-casting narratives. Embedded in our discussions will be multimodal and arts integrated literacy practices, suggesting a generative turn towards what Bayley (2018) views as "the unfinished, unfolding terrains of posthumanism(s) and new materialism(s)" (p. 24). This affords further conceptualization of futures literacies, as both an emerging process and a reassembling of the human and more-than-human, that functions not in isolation but as a relational dynamic to other people or objects (Burnett & Merchant, 2020).

REVIEWING THE LITERATURE

Over the past few decades, new literacies researchers have taken up critical questions aimed at expanding our understanding of what now counts as literacy and text in the 21st Century. This scholarship is often explicitly future-oriented, attempting to "anticipate beyond the present and envisage how best to educate *now* in order to enhance learners' capacities for effective meaning-making and communication in the foreseeable future" (Knobel & Lankshear, 2014, p. 97). With their influential publication "A pedagogy of multiliteracies: Designing social futures," the New London Group (1996) sought to expand the understanding of literacy to include a diverse range of discourses and frameworks, making explicit commitments to equity in the 21st Century (Mirra & Garcia, 2020). Building on the work of the New London Group, Mirra and Garcia (2020) further remind us that our educational focus must prepare students for complex social and cultural futures that they actively design and create. While literacy scholars may examine various forms of meaning-making, modalities, and representations with the implicit understanding that they contribute to shaping our various futures, inquiring explicitly into futures as texts embedded within these practices remains a common oversight. Futures are a by-product of our literacy practices rather than their focus. With futures literacies, we suggest that an adaptable notion of future(s) can and should be a focal point of our literacy practices.

Futures literacies has already emerged as a way of explaining futures imaginings from a global educational perspective. UNESCO's Global Futures Literacy Network is one primary example of an initiative engaging people "in carefully co-created learning-by-doing processes" to "become more 'futures literate'" (Futures literacy, n.d.). They employ Miller's (2018) useful framework of Futures Literacy (FL) as a skill that allows humans to apply strategies to build resilience and opportunities for our futures. Taking up the human imagination as a starting point, FL is defined as knowing how to image the future and why it matters (Larson et al., 2020). Miller's (2018) FL is an accessible normative model suggesting how a deficit

of futures illiteracy can explain why societies struggle to develop "anticipatory activities beyond preparation and planning" (Miller, 2015, p. 514). This knowledge deficit-based view of literacy creates a problematic dichotomy between those with an acceptable capacity and knowledge base related to futures studies and those who are lacking it.

While the term "futures" indicates the discipline of futures studies, it is also simply a word pointing to simultaneous future possibilities – that is, one that belongs to everyone and everything who shares in this present moment. It is important to acknowledge that the futures studies discipline, however robust its knowledge base and methodologies, is not the only legitimate and authorized means of cultivating possibility. A narrowness of definition, either of futures or literacy, continues what Sardar (1993) has explained as the "colonizing tendencies of futures studies" (p. 183). Sardar (2010) acknowledged elsewhere that the labeling of disciplines and discourses often hide more than reveal, and any studies of futures must then be pluralistic, remaining open to a diversity of perspectives. It is also important, in understanding the potential benefits or drawbacks of FL and/or futures literacies as a concept, to unpack the embedded views of how we might perform literacy through various ways of imagining possible futures. Literacy scholars and researchers are aware that views of literacy might affect how we think as learners and the ever-changing process of that learning (Perry, 2012). A particular view of literacy will also have implications for what may or may not serve as a discursive text, or in the case of futures literacies: as a *futuring possibility*.

METHODOLOGY

This article emerged from a virtual public panel held at Congress of the Humanities and Social Sciences of Canada at the University of Alberta, situated on Treaty 6 Territory, traditional lands of First Nations and Métis peoples, in June, 2021. Several discussions occurred before the panel where we explored possible inquiry questions and ways of *performing futures literacies* as a collective body – that is, enacting the practice of futuring as a collective with an audience of conference participants. The four inquiry questions that frame this article arise from our own epistemologically informed and interdisciplinary backgrounds in, for example, education, literacy, digital media, environmental studies, art, poetry, and posthumanism. Rather than relying on a traditional body of literature, which would be too vast to enumerate here, we decided instead to perform our responses to the inquiry questions live in front of an audience (digitally through Zoom because of limitations of COVID-19) and then take them up again here in a written, co-creative, and collaborative format. These inquiry questions encapsulate the following approaches: experiential education and our lived experiences; arts integrated perspectives on the future; theoretical applications of repetition and difference as a mode of change; and posthuman considerations to disrupt anthropocentric framings of the future.

DISCOURSES OF FUTURES INQUIRY

How Do You Understand Futures Literacies in Your Lived Experiences and Pedagogy?
Futures literacies is an invitation to notice and consider potentiality as the water we are swimming in and to hone the imaginative gaze upon possibility not *instead of* but *along with* the necessary and determined contours of our lives. We all experience temporality differently. It has been fascinating to witness the openness of my two young children's sense and sensing of the future, which remains so open because of their developing understanding of the world and their places within it. The narratives that define reality for them have not cohered and they live in a state of unwritten-ness in which the possible, probable, and wildly fantastical are often indistinguishable. I acknowledge that this imaginative landscape is a feature of both their youth and their privilege. Studies have shown children's future imagining is intimately connected with life circumstances and the development of hope, resilience, and future-oriented action (Schiltz et al., 2019).

There is a tension between different readings of the future, akin to Rosenblatts' (1986) efferent and aesthetic stance towards a text. One reading contains a propulsive, organizational, and ethically saturated imperative – we must respond to the body's needs, prepare for the coming weather, perform ethical

response-ability towards each other and the world in the causal chains of a shared and bounded reality. But there is also a radical and aesthetic reading of unbounded future potentiality. I see a futures literacies perspective as the cultivation of rhizomatic cracks and fissures in what is apparently given so that multiplicity, virtuality, and the possibility for radical difference may shine through. As Leonard Cohen (1992) sings, "there is a crack, a crack in everything / that's how the light gets in." This light might be thought of as a kind of freedom even in the smallest moment to become otherwise.

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I often ask others when mingling at social events: do you most often think of or live in the past, present, or future? It's an icebreaker used as an opening for deeper discussion and to gain insights on various perceptions of temporality. The "right" answer, especially in a meditation or mindfulness framework, would likely be "the present." But, as we know, being in the moment is an elusive experience and challenging to do, and others would argue that being in the present may not be a desired outcome for everyone, particularly those whose present might be impacted by suffering or pain. This convivial parlour game about time/temporality ultimately calls in the question of impermanence – or, the acceptance that change and flux are the only constant, and adaptation to that change is at the root of transformation. But humans don't often do so well when facing impermanence, likely due to our biological survival mechanism of fearing change. Futures literacies affords the possibility to work through these experiences of impermanence through expansive ontologies and epistemologies geared toward flow and flux, adaptation and change, and particularly though circular time and narrative, all of which provide a fundamental groundwork for education and learning.

My own answer to the question is that I tend to focus more on the future, largely because of the research I do, which is not only futures literacies but also environmental literacy. Although climate change occurs across deep time and an expansive spatial scale, it seems that much of the discourse involving the climate emergency is about "the future" writ large, without a sense of what kind of relationship we might have with future imaginings. As an educator, my focus also tends to be on the future – the ways knowledges and experiences adapt and shift or the futures of students or the students of the teacher candidates I am fortunate enough to teach. Ultimately, futures literacies has increasingly guided the ways I perceive and experience the world around me, which in turn influences how I approach pedagogy and research.

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Daily life is enmeshed in exchanges of meaning that are about communicating with and through literate and intelligent technologies. The role of the teacher is changing from knowledge keeper to facilitator. The teacher is online. In the tragic summer of 2021, forest fires in British Columbia, Canada, burned out the server relays of the province's southern interior and suddenly we had no Internet. And if you wanted to purchase something, you needed cash, but the closest working ATMs were hundreds of kilometers away. If you didn't have cash, you couldn't buy the gas to get there. You couldn't find out what was going on unless you used a phone with a wireless plan. A power outage followed and everything came to a halt. The intelligent machines were silent. When it became dark outside, what was there to do? Just breathe. Focus. One had to fend for oneself, talk to oneself, internally reconnect, in solitude, futuring in a dangerous world. The future is imminent in educational encounters because the sharing of knowledges, skills, and pleasures is the premise of collective action – sharing understandings to make better decisions in the future. I spend a lot of time teaching teachers how to unlock student potential through building their confidence and enthusiasm for whatever awaits them. But often, the future looks dark and foreboding. I had a childhood friend who always ate her favourite dinner items first, saving the least liked for last. I was the opposite; I ended the meal with the most savoury item so that its taste might linger. One evening, eating together, I asked why, and she said that you never know when the (nuclear) bomb might fall (echoes of the Cold War context of my childhood) and at least she'd have already enjoyed the best of the meal.

This anecdote suggests a pedagogical conundrum, at the fulcrum between pessimism and optimism, between critical and creative stances toward the future, not because one way of thinking is better or more futures literate, but because it seems symbolic of what futures literacies in education confronts: If we are

doomed to some mass extinction, then why worry about consequences? Enjoy life now, just like advertising tells us to do. Such is the fatalistic end game of capitalism which inhibits collective action. The future is burning because the abstract machine of capitalism runs too hot. Teaching futures literacies is like giving each child a small bucket of water. Only collectively will that put out a fire.

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    I see this question, of how we understand futures literacies in our lived experiences and pedagogy, as a question of positioning. How is the temporality of past, present, and future visually mapped in your mind? Is it a continuum, like a gravity drawn water body, in which you are floating – the past holds a higher position, the present is the moment of your wondering, and the future is downstream? To "consider potentiality as the water we are swimming in," as earlier stated, I am reminded of Levinson's (2001) observation:

> The world does not simply precede us, but effectively constitutes us as particular kinds of people. This puts us in the difficult position of being simultaneously heirs to a particular history and new to it, with the peculiar result that we experience ourselves as "belated" even though we are newcomers (p. 13).

    In the following three paintings, I explore the concept of belatedness, this idea that *river/time* is already constituted when we are born into it. Thus, in the *past* (Fig. 1), the self floats supine, seeking transformation in the liquid restrictions of existential will. In this painting, the head is the bulb of the horse's tail and the horse's hind quarters are the woman's shoulders. She is resigned to the flow but seeks to rise. In the *present* (Fig. 2), the young horse is trying to break through the water, the structure of pre-constituted existence. In the *future* (Fig. 3), the mature horse has found dry land but recognizes she is permanently imprinted by the past. All three works present horses that cannot resist looking back – the third horse with a wistful, pensive longing for return. This particular question on how I understand futures literacies has me wondering whether futures literacies arises not only in the future, but also in the past and in the present.
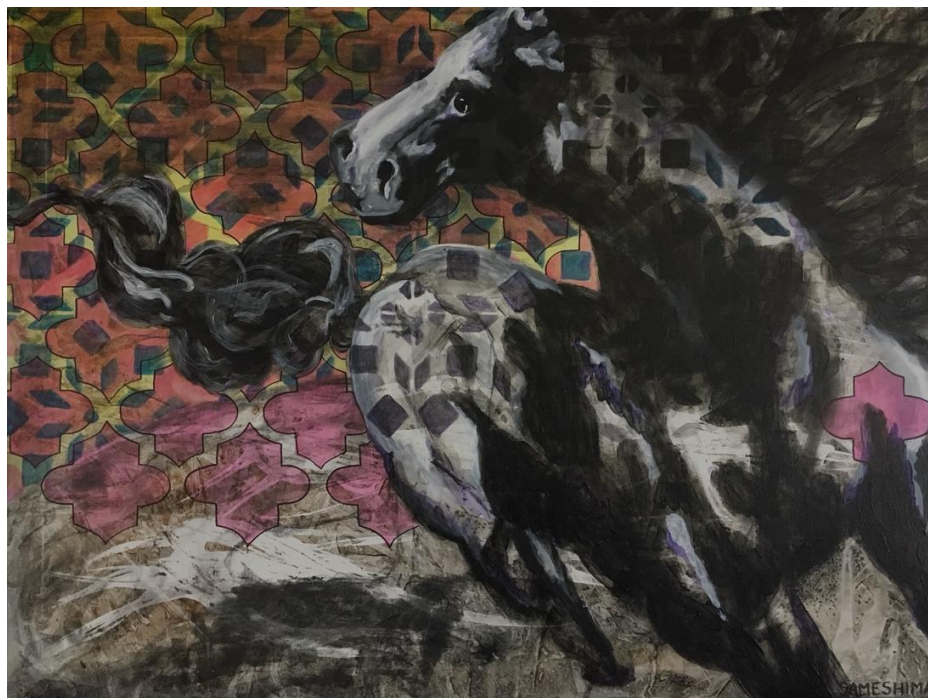
FIGURE 1
ARISE
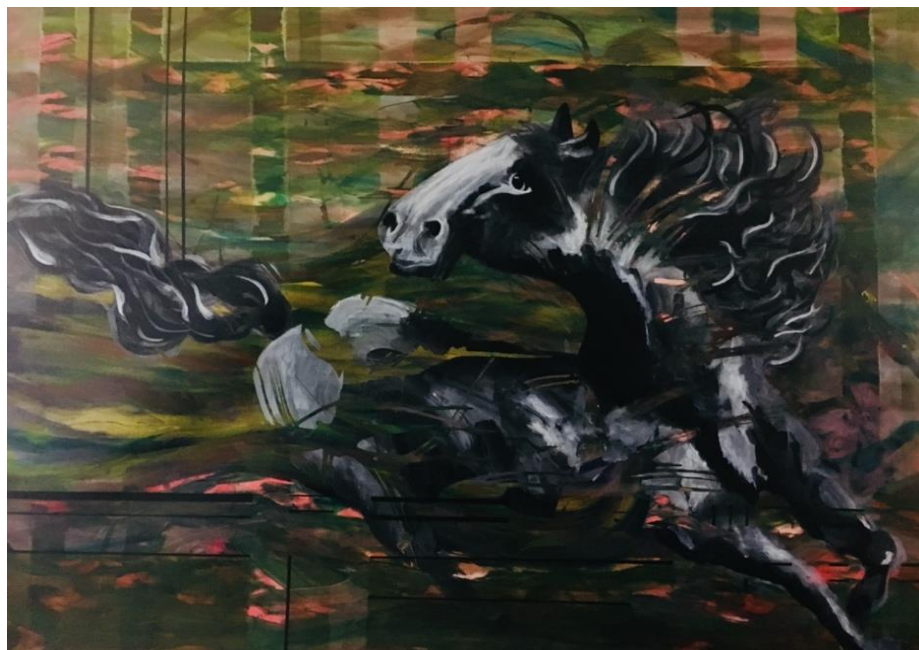
Artist: P. Sameshima, *3' x 4', Acrylic on canvas, 2018.*

FIGURE 2
SPLASH
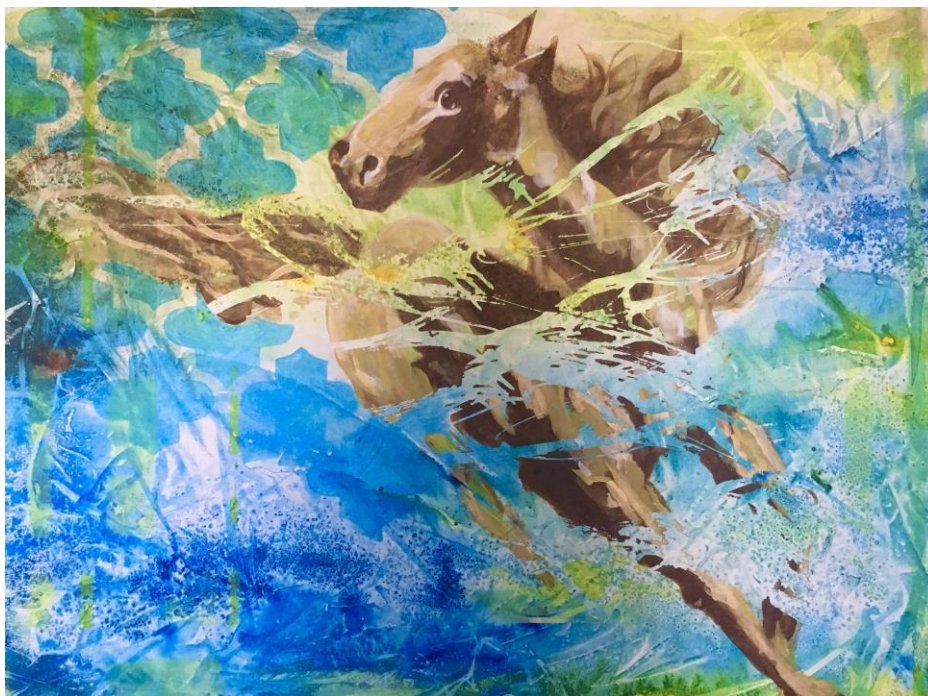
Artist: P. Sameshima, 3' x 4', Acrylic on canvas, 2018.

FIGURE 3
REFLECTION

Artist: P. Sameshima, 3' x 4', Acrylic on canvas, 2018

What Is the Relationship Between Narrative Storytelling and Futures Literacies?

The practices of storytelling and storying provide a way to transform the future (and the past as a simultaneity) in the present moment. Put simply: we do storytelling. As humans, no matter the place or history, story is the heart of our societies. Story binds our histories, cultures, and lives together, and as a consequence, storying creates future worlds. Cherokee author Thomas King (2003) discussed the universality of story in our social histories and in relationship to ourselves: "the truth about stories is that's all we are" (p. 2). Stories simultaneously define, heal, and create our lives. As King acknowledged, stories both educate and shape us into who we are in our worlds, foretelling of a future imaginary through narrative that flows across time. If storytelling remains a primary way for people to perceive and respond to the world, then we can use that same lens to understand and rewrite possible futures (Gladwin, 2021). This is a fundamental aspect of education, even without employing the methodology of storytelling, but it seems much more powerful if storying our futures could be integrated further into literacy practices.

Stories also fit into the larger collective of cultures, nations, and the planet, which all draw on the ways we build and practice knowledge. Nigerian author Ben Okri (2014) talks about how nations and peoples become the stories they feed themselves: "If they tell themselves stories that are lies, they will suffer the future consequences of those lies. If they tell themselves stories that face their own truths, they will free their histories for future flowerings" (p. 90). The future is constantly being written and rewritten and we, as both individuals and societies, have collective and collaborative agency in this storying process. As reinforced below, no one owns the future, despite deliberate efforts to do so throughout history.

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Our stories of the future fill in a void which is the absence of the future (Staley, 2002). I take up the notion of story here in the widest sense possible, as any accounting of the explanatory and causal connections between events or experiences, either real or imagined. Stories help us create meaning and coherence out of a complex and contingent state of affairs. Stories lend human actions a sense of meaning and purpose in time; they create a trajectory or plotline of the sequences of days and years that accumulate in a life. Cultures are composed of concentric, contingent, and entangled stories, public and private, of work and politics and patterns of consumption. These stories guide and organize our behaviours, our beliefs, our values, and our dreams. Some of these stories are more rigid and embedded than others and come to be experienced as Truth. But we know that while narrative has explanatory power, it does not represent objective reality. Indeed, the more fixed and rigid our narratives of the world become, the more self-perpetuating, dogmatic, and dangerous they are. Futures literacies asks us to become attuned to the narrative-ness of the future – as something that does not exist but is performed in the present through story. This is an invitation to apprehend the storied nature of possibility, and to participate in a proliferation of storying. Futures literacies is a suggestion that the contours of contemporary reality have become story-deficient – political polarization, rampant capitalism, environmental degradation – these reflect the consequences of a paucity of imagination and narrative possibility.

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Futures literacies supports the telling of all stories. It does not privilege the stories of those in power. In December 2021, CBC News ran a series of stories investigating the use of non-disclosure agreements (NDA) at the University of Prince Edward Island (UPEI) (Campbell, 2021). NDAs are confidentiality agreements and once signed, survivors of harassment or discrimination are not permitted to talk about their cases. In May 2022, new legislation took effect in Prince Edward Island, limiting the use of NDAs and allowing those who previously signed NDAs to freely speak to, or seek support services from, health care professionals, law enforcement personnel and prospective employees (Campbell, 2021, Dec. 3). This new legislation is widely supported because not only have NDAs been long used in settlements to silence the stories of survivors, but there is a culture of silencing (Dunham, 2017). NDAs prevent the stories of injustice to be spoken, and legitimate abuse and harm by sweeping stories into closed files thereby supporting abuse patterns to continue. Cunningham et al.'s (2021) research found that persistence of unethical behaviour is built on networks of complicity that control and silence victims. Futures literacies recognizes how social

network theories of power operate and support distributed power. Futures literacies imagines new spaces for the way hope is birthed through multiplicities of stories. Through the cracks, a faith is born that anticipates the brilliance of joy to come. This is the optimism futures literacies holds.

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The future is a story of consequences. Reminded again of that adage by Santayana (1905) that "those who forget the past are condemned to repeat it" (p. 284). We are confronted by an irreconcilable past, of which the present is a telling moment. We are experiencing a temporal rupture, a displacement from confidence in Progress as a measure of human advancement. Rimbaud (1961, p. 11) wrote, "Science, the New Nobility! Progress. The world marches on! Why shouldn't it turn?" Now, turn we must. We are not the first generation to hold fear about the future, but we grapple with the knowledge that human life is unsustainable unless we change profoundly, unless the present tells different stories. This requires more than adaptation; it requires a break, disrupting expectations, dislodging the Anthropocene timeline, a difference that is not additive in the sense of *newness*, but rather *otherness*. The future is other, shrouded in uncertainty. Anthropocentric narratives have dire consequences when discounting the sovereignty of all other life. See tree, think timber, won't cut it. An epoch of wastefulness was certain to have consequences. My house is too hot, but when I open a window smoke billows in. Decisions, decisions, each one incrementing the future. Telling different stories makes other decisions possible, frees different futures to unfold. Through repetition of narratives, we become enemies of our own existence.

How Are Repetition and Difference Taken Up in a Futures Literacies Perspective?

Recently, I took a vow of optimism. Confronting the dire prospect of humanity's fate in the face of impending catastrophe, I was slipping ever more into fatalism. I would also wrestle with that sense of grief over the inevitable consequence of capitalism unhinged to ecological, social and moral obligations/relations. Pessimism is premised on repetition, that we cannot afford to change, that our fate and the future are already written in global ledgers, and that large-scale transformation is about economic systems that will never put the needs of the earth and all its inhabitants over the precious moment of privilege. To radically and creatively reimagine the future is to prioritize hope and hold a boundless compassion in one's head and heart. Futures narratives require *difference*. They require us to eradicate the taken for granted continuation of abundance and boundless resources, and to look at what might be hoped for if all we have is what we are already blessed with, and to apply this logic to absolutely every aspect of human existence. The optimist does not despair, sees a golden age of deep relationality and connection rising out of a last-ditch attempt to stop the flames.

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This question is a bit of a quagmire, but I will try to draw on the notion of space, time, and scale brought up previously. When considering what futurist Riis (2020) refers to as an ontology of the tomorrow, or simply an ontology of the future (Kruse, 2020), one could go back to Heidegger's 1927 *Being and Time* (2010), where he explored how our notion of being can only be understood in relation to time. This temporal nature speaks to the repetition of futures literacies, emphasizing the plasticity of past, present, and future and the duration experienced between and among events as an educational ontology. In the western teleological paradigm, time is concretely linear, so this makes sense, and it is a paradigm Heidegger clearly draws on.

If we take this a slightly different direction, however, we might consider futures literacies in terms of *being and space*, drawing on the spatial elements of futures ontologies. Foucault (1986) claimed that the 19th Century was a period focused on history and time, whereas the 20th Century became more occupied with the notion of space. With some historical perspective, it seems that the 20th Century remained largely focused on time and history as well, whereas the 21st Century might be the century to emphasize *being and space* – particularly through the looking glass of digital universes where scale, speed, and transport have developed into ever-expanding capacities, repeating the past while also manufacturing an array of

differences. Speed, for example, is as much spatial as it is temporal. The acceleration of time is merely a compression of space and movement in both real and imagined spaces.

Tying this into a futures literacies perspective, notions of space – how beings negotiate globalization amidst an increasing call to live more locally – might develop curricula around sustainable models. Education, too, is looking at more local models to draw on place-based or experiential education. Taking on a perspective of being and space is also a way of decelerating time by rooting ourselves in place, building relationships and communities with both human and more-than-human species and organisms. So, in this sense, repetition and difference in the context of an otology of the future might be reconsidered from spatial perspectives to practice education as a place-based project rather than *only* fixed in time.

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Perhaps the difference only becomes evident if we pay attention to the repetition that is a natural part of a cycling rhythm. Careful attention to the status quo is where one must search for the outliers of difference. Within the everyday normalized practices, we must find the ways to fracture our automation so we can awake to the perpetuation of outdated and harmful actions. If we go back to the previous comments above about children's outlook of hope founded in an openness to the non-cohered and unwritten, imagine children's buoyant expectancy standing at an imagined giant green receptacle, that bulbous pedicel part of a flower stalk that holds the petals. The children stand, being able to simultaneously look forward at each of the individual ray florets of a bright yellow chrysanthemum with petals that are ever replicating and extending forward with a blooming period of no time. This is joy, the bright unknown intriguingly unfurling a future full of possibility that these young eyes happily wander through. As time elapses into a future, the children's positions perceptually slip farther and farther back down the stem, their vision diminished by time, trauma, rigid schooling, realities they accept, and other horse blinding conditioning. With distance, the bloom becomes smaller, less vibrant, and the chrysanthemum a collective singular. The unwritten-ness of possibility becomes an amorphous oneness.

Current conceptions of temporality would have the children moving forward with time toward a future through iterations of blossoming and yet in this imagined modeling, time creates a backward slipping – the exuberance of moist petals appear to be receding into a future while the aging children's positions slip backward on the stem creating the distance – the future and the present continuously widen to fuel a Sisyphean desire and despair, a longing to return to a past (the bloom) that was/is paradoxically ahead and not yet experienced. Thus, the way the landscapes of past, present, and future are conceived and their relation to time, influence how futures literacies can be imagined.

How Might We Conceive of Futures Literacies Within a Posthumanist Ontology? What Might Be the Benefit of This Framing?

In her short poem *The Three Oddest Words,* Wislawa Szymborska (2000) describes three words as paradoxes that negate themselves upon utterance: future, silence, and nothing. She wrote, "When I pronounce the word Future / the first syllable already belongs to the past." I find posthumanism to be a similar kind of paradox which encompasses a self-annihilating conundrum: posthumanism is always already a human-derived word and concept. How can I imagine the posthuman when my very imagination is inescapably human derived (though inextricably entangled with the other-than-human)? How can I perceive the world from outside my own embodiment? Regardless of our inability to achieve anything like other-than-human thinking, the importance is the *attempt*, the *reaching towards* the universe and meeting it halfway (Barad, 2007). This is an invitation to de-centre the human and cultivate interest, curiosity, humility, and ethical commitment towards the other-than-human agencies with whom we share a deeply relational existence. In terms of a futures literacies perspective, posthumanism reminds us how the prioritization of human desire is a kind of violence within what Barad (2007) describes as "the inescapable entanglement of matters of being, knowing, and doing, of ontology, epistemology, and ethics, of fact and value" (p. 3). This perspective asks us to rethink human desire (for preferable future outcomes) and to ask the question: What futures are imaginable if humans exist in a field of un-hierarchical relationality? Though we cannot perhaps *succeed* in imagining outside of the human by virtue of being human, there is an ethical

and aesthetic imperative to strengthen relations with the other-than-human through affirmative difference. In so doing, we may gain deeper insight into our own difference and otherness in and with a feeling world and become empathetically tuned to the reverberating consequences of our bodies and motions on a damaged planet.

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As the Critical Art Ensemble claim in their treatise *Flesh Machine* (1998), we are already posthumanist. The automation of so much of our daily life that in previous generations defined us as individuals and as a species – our physical work, languages, systems of class and privilege, the ability to hypothesize and draw conclusions, to invent environments, to predict events, indeed to be futurists and prepare ourselves for unforeseen eventualities – now supplants traditional human rights and agency. Even the ability to engage in large-scale conflict, to murder for sport, to dominate and oppress in order to procure abundance and engage in what Thorsten Veblen (1994) called "conspicuous consumption," which relied on "the element of waste . . . of time and effort" and "of goods" (p. 40) have prevented collective, creative resolutions. Such wasting was, in a sense, the human prerogative, a lingering holdover of non-precarious futures. All this now relies on technologies. Posthumanism posits the conditions by which our intelligent machines achieve an equal status, even overtake us as the agents of future conditions of existence. At one time, this might have been dismissed as technological determinism, but we are past that, we are posthuman and the technology is in us, on us, and everywhere around us, in our food, our genes, and in the sky overhead. If I run and hide in the off-grid wilderness, I can watch myself hiding with the satellites' bright, reflective eyes. It is hard to imagine a future that is not conjured within a technological paradigm, either with more, better, smarter technologies, or by the sudden dysfunction of technologies, the convulsive mythos of humanities' creation gone rogue or turning self-serving, in the image of its maker.

Hence the posthumanist future is anchored in a technological present, and it is either a utopian or dystopian syndrome. Posthumanist futuring is about beginning a conversation with, not about, technology, acknowledging first and foremost that agency is not about humanity as a privileged concept, but as a dependent concept. A futures literate posthuman recognizes that there is nothing left to waste; waste is the last resource. What is a posthuman optimist? Answer: a teacher, one who places all beings, organic or cybernetic, on an equal plane, where each entity is valued, dependent, interagentive, learning from, about, and open to the inevitability of change without nostalgia for what hast already shuffled into the bursting archives of the pasthuman.

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My colleagues ask important questions of whether it is possible to imagine existence in a field of un-hierarchical relationality. Bernstein (1996) quotes Hannah Arendt: "Even in the darkest of times, the question of one's response and responsibility can and must be raised. There is the possibility to initiate, to begin, to act" (p. 38). Arendt suggests "that new forms of dialogue and imagination must be fostered" (Coulter & Wiens, 2002, p. 18). A posthumanist ontology inherently positions the self as a designer lurching toward a performed vision, a designer of the future. Our actions are expressions of freedom and responsibilities of our agency. The posthumanist is not neutral and holds themselves and others socially accountable and responsible for the planet and life.

The benefit of framing futures literacies within a posthumanist ontology is to anticipate the *not yet* and to have the foresight to imagine *what if*? For example, at the time of this writing, in a wave of the highly transmissible Omicron coronavirus variant, the pressure for people getting vaccinated and additional booster vaccine doses was intense (McKenzie-Sutter, 2021). A futures literacies outlook considers employing multiple avenues of investigation and implementation. While the following research was carried out pre-COVID-19, the resulting recommendation is very much in line with posthumanist considerations. Hornsey et al. (2018) measured anti-vaccination attitudes across 24 countries with over 5,000 participants and found that demographic variables including education were nonsignificant. Their research found that the key underlying attitudinal roots that drove anti-vaccination choices were conspiratorial beliefs, reactance against impingements on freedoms, and sensitivity to blood and needles. The researchers

concluded that repetitive education and myth-busting were ineffective and counterproductive, and that a better strategy would be to draw attention to people's worldviews and demonstrate how bias and vested interests sway thinking (p. 312). The summary recommendation from the pre-coronavirus project on vaccine hesitancy supports interventions that promote individual reasoning and meaning-making as the impetus to changing people's minds.

In the first widescale coronavirus review on attitudes, acceptance and hesitancy, high rates of hesitancy were related to fear of the safety and side effects of the vaccine, effectiveness, and the fast pace of the vaccine development (Cascini et al., 2021). To lower vaccine hesitancy rates, this study recommended increased health education, the use of different media platforms, and a positive attitude from information sources. While this 2021 COVID-19 vaccine study and the 2015 study on vaccines in general, appear to provide disparate recommendations, a futures literacies posthumanist ontology supports a stepping forward with a multi-angled approach to any kind of change, not privileging one study's recommendations over the over, but to consider how diverse methodologies provide diverse recommendations and will reach diverse populations. In both studies, however, the core of transformation rests upon a self-generated meaning-making where individuals are designing their own futures.

CONCLUSION

One question that guides our inquiries, and what we believe needs to be asked widely, is who are the designers of the unknown and how can education be (re)considered as part of a collaborative design process in and with the world? When imagining futures literacies as a critical plurality, we suggest the imperative of taking up futurity as an object of inquiry, investigation, and creative expression. "Rather than standing outside the objects of social and cultural inquiry, [the individual] is sculpting social and cultural relationships from inside" (Hayes et al., 2019, p. 39). We suggest within these pages that a futures literacies perspective allows one to sculpt relationships with the future from within the futurity that saturates the present moment. Because education and literacies of the future imaginary have performative impact both upon the future in the present, as well as the present of the future, we can actively envision and cultivate our future imaginaries towards creating more positive contemporary relationships with futurity, while simultaneously cultivating preferred future outcomes in the yet-to-be. A futures literacies perspective simultaneously invites us to problematize and critique human desire and preference by asking *which* humans are desiring and *whose* preferences are foregrounded? In our efforts to build a better future, we must first decolonize dominant and normative narratives of futurity and critique contemporary notions of progress, a pluralistic transformative experience focused on social change. A posthumanist futures literacies asks us to inquire into imagined futures creatively, critically, and empathetically from radically more-than-human perspectives.

Futures literacies draws together the generative and critical pluralities affording a multiplicity of perspectives and possibilities. This article ultimately aims to promote a more radical, inclusive, and creative formation of shaping futures literacies. We have attempted to engage in a futures literacies praxis in which we each offer our voice, as a collective interpolation, within a gathering of diverse perspectives within a common impulse. We are reminded again of the artworks *Horse/times*, *Arise, Splash,* and *Reflection.* When apprehended collectively and simultaneously with the aid of algorithmic collaboration, the individual paintings lose their distinct characters and become awash in each other. They visualize diffractive patterns and possibilities for further differencing – each time/horse becomes other than herself and in relationship with her differences. We see this as a visual representation of the possibilities for aesthetic, philosophical, pedagogical, and deeply intimate engagements with futurities. These engagements can never be conclusive; rather, each authentic inquiry into the unknown creates rhizomatic fissures for possibility and difference to shine through.

FIGURE 4
A GATHERING OF HORSE/TIMES AS COLLABORATIVE FUTURES LITERACIES PRAXIS
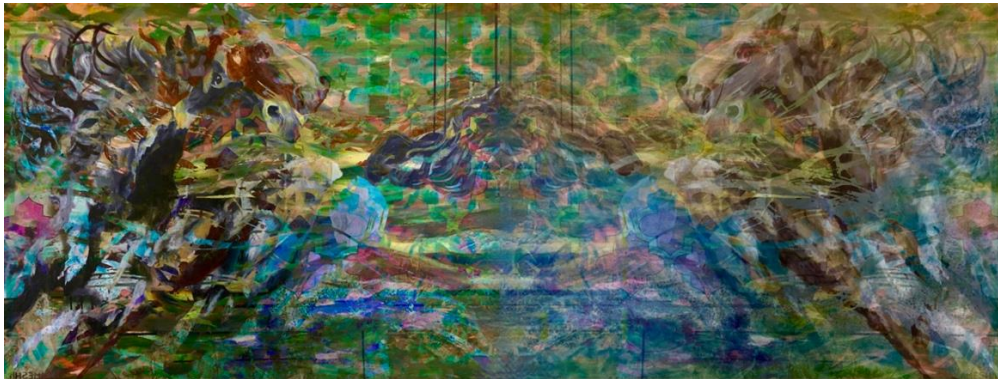
Artists: R. Horst & P. Sameshima, Digital, 2021.

The composite image was created with the mean (right side) and median (left side) of pixels from each of the above paintings (Figures 1, 2, and 3) superimposed upon each other. The mean has been displayed in a vertical reflection to create an infinite loop of a past, present, and future gazing.

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