

# FUTURE NEWS

TO CONNECT, TO INFORM AND TO INSPIRE

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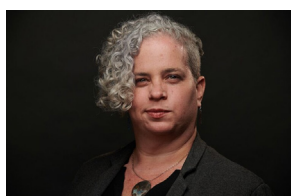
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# WHY IT'S CRUCIAL TO BUILD A HEALTHY RELATIONSHIP WITH THE FUTURE

by Jessica Clark



Signals of the future are all around us. Every day, we see another story about the ways in which technology and artificial intelligence are reshaping our world. Innovations in high tech medicine and diagnostics, deepfakes and synthetic media, brain reading, life extension and regeneration are each mind-boggling. Together, they are nearly incomprehensible, interacting in rapid and unpredictable ways.

Everyone seems to be constantly asking: What's in these evolving trends for me and my work? But more often, it seems, we should be asking the questions: Who is developing these technologies? Who are they being developed for? What are the trade-offs? What do they mean for our organizations, for the philanthropic field, or for those facing structural racism?

Many of our institutions operate in the context of the short-term, in crisis mode, or in the three-to-five year strategic planning mode, as if the next few years are immune from the instability of the present and recent past. Taking the time to contemplate different future possibilities can help us orient more positively to the outcomes we want to see and our organizations' roles in bringing them about.

Of course, getting into right relationship with the future can be difficult, given the lingering twin-demics of sadness and burnout from the last few disruptive years. Riven by division and random violence, it's too easy for Americans to succumb to bleak *Black Mirror*-style bleak visions. Lack of hope has real consequences: Some people are deferring child-bearing for fear of a burning planet, while others, as The Atlantic reports, may have given up on humanity altogether.

As an antidote, the practice of futures thinking can provide a set of tools to help us explore multiple possibilities, manage risk, exercise optimism, become more resilient in the face of uncertainty, and examine paths toward an equitable tomorrow.

## WHY DOES THIS MATTER?

You may wonder: When many of us are busy to the point of overwhelm, why take the time to contemplate things that have not even happened yet — or may never will?

Well, first of all, we're already doing so — just in ways that don't always serve us. We're drowning in futures: weather and election forecasts, fears and fantasies about automation, the harmful conspiracy theories clogging up our social media channels. But most of us lack the time or tools to sift the more relevant prognostications from those that are noxious or designed to maintain the grip of those already in power.

That's why the United Nations Educational, Scientific, and Cultural Organization (UNESCO) has declared futures literacy an "essential competency for the 21st century," which "empowers the imagination, [and] enhances our ability to prepare, recover and invent as changes occur." We need to see futures literacy as a competency, just like media literacy or financial literacy, to operate in this volatile world.

Secondly, learning to imagine futures in which we can all thrive goes hand-in-hand with reframing humanity's prospects for survival and the role philanthropy plays in it. What about elevating futures, for example, that prioritize slowness and mending over the “move fast and break things” startup ethos?

When people can picture the futures they yearn for and need, they are more motivated to work towards them. Hope can serve as a driving force that propels people to take meaningful action, collaborate with one another, and seek innovative solutions to pressing challenges. While this might sound naive, author Rebecca Solnit makes a distinction between hope as a personal feeling and the hopeful spirit needed for collective action: “Hope is not happiness or confidence or inner peace, she writes, “it’s a commitment to search for possibilities.”

## HOW TO BUILD A HEALTHIER RELATIONSHIP WITH THE FUTURE

So, what would it take to repair our society's dysfunctional relationship with tomorrow and together imagine futures that are more humane and equitable? Working with my research team at Dot Connector Studio, we arrived at three main guiding principles: Widening the circle, putting up guardrails, and expanding methods.

### 1. WIDEN THE CIRCLE

Building a healthier relationship with speculation requires opening up the aperture to invite perspectives from those whose voices have been systematically excluded.

In practice, this means that to develop a healthy relationship with the future, we must be asking these questions:

- Who is imagining, driving, and deciding these futures?
- Who will benefit from these futures? Who will lose?
- What are the trade-offs and for who?

All too often, “progress” and “the future” are pre-colonized by the predictions of Western scientists, business leaders, policymakers, and other elites who many people often believe automatically. What if we regularly sought out a broad spectrum of futures, informed by hopes, knowledge, and life experiences different from our own? Engaging people through methods that invite them to take part in the exercise, not just consume information and be overwhelmed, can also open the door to fresh thinking.

Here it's also important to understand that social change work is a form of speculative thinking — all of us have futures that we're trying to achieve whether we articulate it this way or not. Advocacy organizations, mutual aid initiatives, and others not doing formal foresight, but working towards an equitable and healthy vision of the future are also doing vital futures thinking. As author and organizer Adrienne Maree Brown notes, “All organizing is science fiction.” In other words, imagining and preserving space for all people in the future *is* futuring.

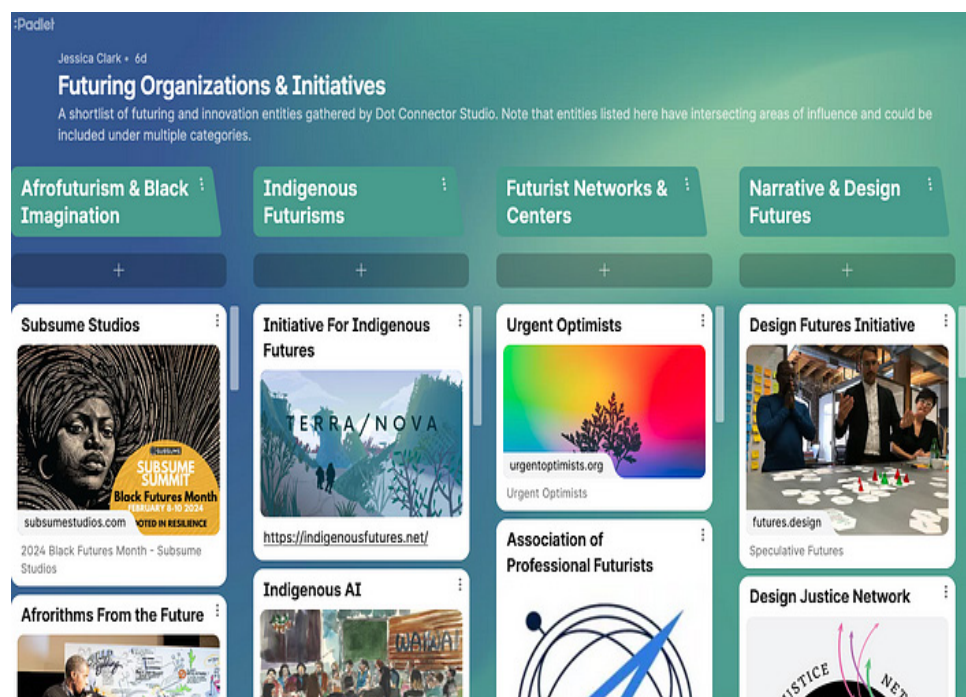
In looking across the horizon, both Dot Connector Studio and the Pioneering Ideas for an Equitable Future team have sought out marginalized future thinkers trying to reset the frame, such as those practicing Afrofuturism, Indigenous futurism, queer futurism, and more. In these approaches there's often a focus on igniting hope, liberation, and joy, and making alternate worlds more realizable.

In Wired C. Brandon Ogbunu explains, “Why do we care about what the Afrofuturist has to say? And why would we suspect that their answers would differ from that of an average futurist? It is because the Black experience is defined by a historical struggle for existence, the right to live, to be considered a person, to be afforded

basic rights, in pursuit of (political, social, economic) equality. Because of this, the Afrofuturist can see the parts of the present and future that reside in the status quo's blind spots."

Not seeking out a wide range of perspectives and creative insights about what might come next means missing both major opportunities to avoid harm and flag obstacles to equitable transformation. Co-creating futures with those most impacted by harmful policies and structures — or giving unrestricted funds for such communities to do their own futures thinking — can help those in philanthropy seeking social change to solve complex problems. There are many possible futures being imagined worldwide. Solutions to wicked problems may already be out there waiting to be shared.

During my residency, I worked with the Foundation to explore ways to welcome visions from people who span a wide range of identities, genders, races, geographies, sexualities, class positions, heritages, abilities, and political leanings.



## 2. PUT UP GUARDRAILS

The second principle is "Putting up Guardrails," which we conceptualized as actively thinking about the values and implications of your futures thinking. It's fun to wonder what comes next, but it's not meaningful without thinking through consequences.

Imagine the future as a highway: on one side is the yawning maw of despair; on the other is what economists call "irrational exuberance." Guardrails protect us from these excesses, keeping our eyes forward so we can better navigate what's rushing towards us. They protect us from ourselves, and by extension, from hurting others if we spin out of control.

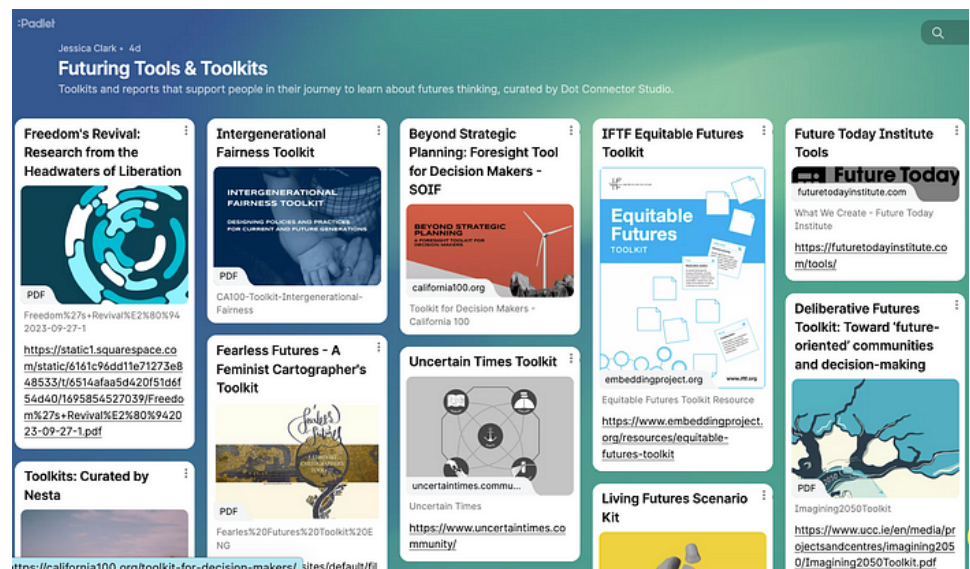
Another way to think about guardrails might be to ask if the ideas you're considering have the potential to either cause or deepen harm. This might involve taking the time to consider a more nuanced array of options. In a useful framework for "protopia futures," Monika Bielskyte and collaborators note: "Both science fiction and corporate foresight visions directly influence reality, and their predominantly dystopian/utopian stereotypes more often than not limit our understanding of the possibility space of tomorrow's choices."

As an example of how to counter these tendencies, during my residency I attended an online course led by science fiction author Margaret Atwood called Practical Utopias. She mirthfully led the class through the process of jointly writing more positive scenarios to grapple with climate change. Not just wishful thinking, these were informed by solutions already developed by real-world social innovators such as those documented by Project Drawdown. By tying speculation to existing examples of solutions, participants kept themselves grounded and upbeat.

A related practice called “critical futures” as developed by Sohail Inayatullah involves asking hard questions that challenge the status quo, rejecting the notion that business-as-usual is the only way. In his article “Deconstructing and Reconstructing the Future” he recognizes that the realization of one reality inherently means that other realities and ways of doing or thinking are discounted or silenced.

What are often described as “broken” systems are systems that are actually designed to disenfranchise and marginalize. How can the safety and inclusion of disenfranchised communities become the first consideration when imagining futures? What are non-negotiable values? What ideas are not acceptable? Instead of using the past and present to visualize the future, how can existing power structures be disrupted? What needs to be restored, reimagined, abolished, transformed?

To help us all think more deeply about what it might mean to establish better guardrails, we’ve collected examples of more socially engaged forms of futures thinking. Consider, for example, the toolkit related to being a “good ancestor,” — long a tenet in indigenous cultures — or the Freedom’s Revival field guide authored by Mia Birdsong and Saneta deVuono-powell. In it, they surface methods and visions for imagining a future in which “freedom” is understood in a deeply interconnected way, “embracing the idea that our individual lives are enriched when our society cares for others.”



### 3. EXPAND YOUR METHODS

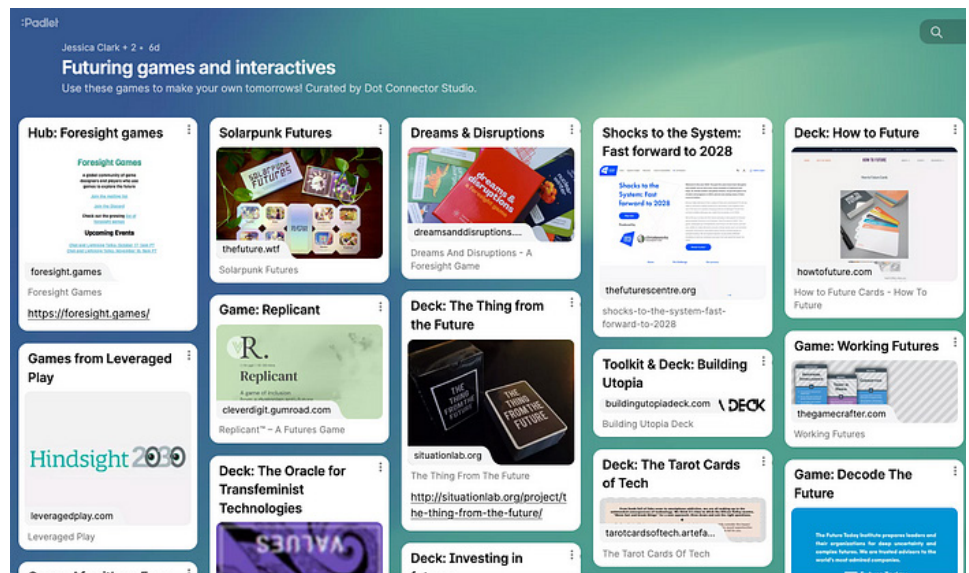
Finally, bringing in other forms of experiential co-creation beyond the analytical trend-sensing of professional futurists can also help us to develop a more full-bodied appreciation of what different trajectories might mean. The burgeoning field of “design futures” engages artists, installation designers, media makers and others in creating tangible “artifacts from the future.”

Reading and writing speculative fiction is one very popular way to interrogate possibilities. Spending time in more life-affirming futures helps us reimagine the past and construct different possibilities. Afrofuturism is a key example of this, inviting us into worlds in which racism does not dominate. Other more inspiring genres include solarpunk, which “depicts visually bright and optimistic ecological utopias, often imagining a society where the climate crisis has been resolved or is being approached with camaraderie,” and hopepunk, a storytelling genre that frames hope “not as a brightly optimistic state of being, but as an active political choice, made with full self-awareness that things might be bleak or even frankly hopeless, but you’re going to keep hoping, loving, being kind nonetheless.”

How can we address and accommodate different learning styles, be more playful, and bring more tangible and hands-on aspects to the work? Games are one way to involve others in co-creating better futures, or at the very least imagining how to avoid worse ones. Artists too can serve as harbingers of futures that are not here yet, and spark contemplation.

Here we’ve collected examples of games, exhibitions, and speculative fiction that demonstrate a wide range of methods. Check out, for example, the widely used card deck called The Thing from the Future. Or dive into the work of Octavia Butler, whose science fiction has been cited as a prescient critique of the past few years in America—and then see books by Nnedi Okorafor to dream about what might come next.

Jessica Clark is the executive director of Dot Connector Studio, and served as the Foundation’s futurist in residence from 2022 to 2023. The views expressed are the author’s own and do not necessarily reflect those of the Robert Wood Johnson Foundation.



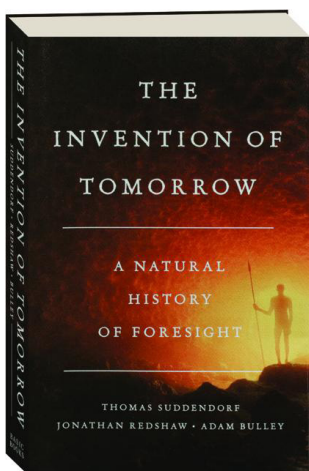
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# Book Review

by Charles Brass

## The Invention of Tomorrow A Natural History of Foresight

by Thomas Suddendorf,  
Jonathan Redshaw and Adam Bulley



This began as a review of a recently released book, but has morphed into an essay on why it seems to be so difficult to embed foresight into individual and collective human actions.

As a practising futurist for over 30 years I have stood in front of innumerable audiences and extolled the virtues of foresight using many different tools and metaphors. Over the years, my personal favourite introductory tool has been the futures cone,<sup>1</sup> but I know others find the futures triangle developed by Sohail Inayatullah<sup>2</sup> to be very useful, and still others favour the three horizons model<sup>3</sup> originally

1 which is best explained [here](#) by one of its earliest proponents, Joe Voros

2 and explained [here](#) by Chris Reidy:

3 explored [here](#) by Daniel Christian Wahl

developed by McKinsey but refined and promoted by Bill Sharpe.<sup>4</sup>

Notwithstanding all this recently developed technology, many (if not all) futurists I speak with still find it difficult to (as I regularly put it): “find people who will sit still long enough to put the future seriously on their agenda”.

While there is no doubt that formal foresight agencies, inside both companies and countries, are increasingly being created (and funded), the extent to which the activities of these agencies is evident in actual decision-making processes is not at all clear.

A variety of reasons are commonly put forward for the lack of evident foresight capacity in the world generally. Some of the most common are:

- all competent foresight practitioners recognise the inevitable uncertainty inherent in their work – and many potential clients are simply unprepared to commit serious resources to projects where the outcome is uncertain
- even if the inevitable uncertainty issue can be overcome, the future is also

4 there are plenty of other introductory tools – see for example [this futures toolkit](#) produced by the Forum for the Future, Futures Centre

infinite, hence decisions always need to be made about the extent of resources devoted to exploring what is unavoidably partial

- even if unavoidable partiality can be overcome, there is the issue of time. Time does not stand still while foresight explorations take place. So the longer the time between starting and implementing a foresight journey the more likely it is that events have overtaken the assumptions and investigations undertaken
- finally, good foresight practice is a team activity best undertaken by all those with a stake in that part of the future that is being explored. Too many organisations still operate as though all wisdom resides in the executive suite (or in the Cabinet room)

Suddendorf and his co-authors bring a whole new, and fresh, perspective to this issue. They are all psychologists who have been involved in researching the development of the human mind for many years. Using both human children and animals as research subjects these authors (and many others they quote) offer fresh perspectives on the human tale that shows how our species clawed its way to control the future.

The essence of their argument is that homo sapiens, apparently uniquely on this planet, has developed the ability to relive past events in order to predict possible futures. This is not just an assertion on their behalf, it is rigorously examined based on their own, and other's research. Although a number of animals (and potentially even some trees and plants) have a capacity to anticipate some distance into the future, there is no evidence that they can reflect on these experiences or use them to anticipate situations they have never previously faced.

The authors point out that while chimpanzees grunt excitedly to say hello, our closest animal cousins never say goodbye. In fact, humans may well be the only animals who bid one another farewell in mutual recognition that we are going our separate ways, and in the hope our paths may cross again. To be human seems to be to live as much in the past and future as in the present. It's both a blessing and a curse, since non-human animals aren't burdened with the worries about future events as we are, such the knowledge we all have of our own mortality. But of course, humans live far better, with much more control of our environment, thanks to that foresight.

The last chapter is truly a gem, an essay worthy of reading on its own. In it, Suddendorf and colleagues describe the successes and failures of human foresight over the course of history, including how some of humankind's innovations have had devastating repercussions for the Earth. But the authors' tone is concerned rather than judgmental; they acknowledge the challenges inherent in intergenerational [cooperation](#).

Perhaps the best reason for recommending this book is a quote from page 198:

"...we must learn to harness foresight even more if we are to have any hope of addressing the global longer-term challenges humanity is facing."

For better or worse, foresight has transformed the world.

In 2016, a group of cognitive scientists at the University of Queensland in Brisbane, Australia, developed a series of experiments that illustrate the essence of foresight in a deceptively simple form. The first of these experiments was performed with children between 2 and 4 years old. Researchers showed them a vertical tube and dropped a reward into the hole at the top. After a few tries, the children readily succeeded in the task of catching the reward by placing their hands at the bottom of the tube. Interestingly, the experiment was also performed with adult chimpanzees and orangutans, who easily caught the reward as well.

In the second experiment, researchers "made the future a little harder to predict." [1] This time, they replaced the straight tube with a fork with two exits at the bottom, like an upside-down Y. In this way, the reward would come from one exit or the other. The results were much more interesting: two-year-old children and all of the apes failed the test because they covered only one of the exits and thus caught the reward about half of the time. In contrast, by age four, human children consistently succeeded in getting the reward by placing their hands at both exits.

*Depiction of the Forked-Tube Task Given to Children and Great Apes. Source: Redshaw and Suddendorf (2016), 'Children's and Apes' Preparatory Responses to Two Mutually Exclusive Possibilities.'*





# FUTURISTS IN ACTION

## THE FUTURIST'S TRILEMMA NAVIGATING THE UNCHARTED WATERS OF TOMORROW

by Thomas Frey



In the ever-evolving landscape of modern society, the task of envisioning the future presents a challenging triad of dilemmas collectively known as the Futurist's Trilemma. This concept encapsulates the complexities and hindrances faced by forward-thinkers and organizations alike as they maneuver through the intricate task of forecasting and shaping the future.

At its core, the trilemma unfolds into three primary dilemmas: the Imagination Dilemma, the Uncertainty Dilemma, and the Action Dilemma. Each of these aspects represents a unique set of challenges: balancing imaginative speculation with realistic analysis, grappling with the inherent uncertainties of future projections, and translating insights into actionable strategies amidst the fear of missteps.

This rich conceptual framework serves as a guide for futurists, urging them to nurture a harmonious interplay of creativity, analytic rigor, and decisive action as they forge paths into uncharted territories. Through the lens of the Futurist's Trilemma, we are invited to engage deeply with the potentials and pitfalls of future exploration, carving out a space where foresight meets wisdom in the endeavor to shape a more promising tomorrow.



## 1. THE IMAGINATION DILEMMA

At the core of future planning, where the canvas of time stretches open-ended, weaving in possibilities not yet materialized, is the first pillar of the Futurist's Trilemma: the Imagination Dilemma. The ability to project into the yet-to-be-charted territories requires an extraordinary exertion of imagination, one that is both a gift and a challenge.

As futurists, the innate curiosity to explore realms of unprecedented innovations plays a crucial role. This curiosity beckons a journey into speculative yet grounded envisioning, which cultivates a garden of ideas that can potentially change the landscape of tomorrow. However, a boundless imagination can sometimes unmoor us from reality, leading to fantastical imaginations that overlook practical restraints, veering towards the unrealistic and improbable.

Thus, the central task is finding a harmonious balance between creativity and pragmatism, where we foster innovation without losing sight of the tangible and plausible realities. How do we then nourish an imagination that is both vivid and grounded, soaring yet tethered to the nucleus of feasible actualities?

### THE DICHOTOMY OF IMAGINATION

Nurturing an imaginative foresight involves walking the tightrope between the tangible and the abstract, requiring a nuanced understanding of present realities while allowing space for the mind to explore unprecedented paths. This dual existence lends itself to a spectrum of possibilities, where innovation is not stifled by the constraints of the known yet is founded on a bedrock of existing knowledge and plausible speculations.

### IMAGINATION AS A CATALYST

By embracing the Imagination Dilemma, futurists can unlock doors to a rich trove of potential solutions to contemporary problems, carving out paths that lead to sustainable and harmonious futures. The challenge, hence, is nurturing an imagination that is a catalyst for positive transformation, not a flight of fancy detached from the intricate realities of human existence.

### NAVIGATING THE IMAGINATION DILEMMA

To successfully navigate this dilemma, there is a need for multidisciplinary approaches that harness insights from a variety of fields, amalgamating them to conceive futures that are both aspirational and grounded.

It is here that a finely tuned sense of discernment comes into play, helping to differentiate between visions that are attainable dreams and those that are mere fabrications of a deluded mind. The emphasis should be on fostering an environment that nurtures critical thinking and discernment, where imaginative foresights are anchored in deep understanding and strategic analysis rather than mere speculation.



## 2. THE UNCERTAINTY DILEMMA

At the intersection where the present meets the future, where myriad paths branch out into an unmapped frontier, we encounter the second axis of the Futurist's Trilemma: the Uncertainty Dilemma. This dilemma represents the volatile territory of unknown variables and the challenge of predicting outcomes amidst the swirling vortex of possibilities. It beckons futurists to wrestle with a constantly morphing reality fraught with disruptions that can render even the most carefully crafted projections obsolete.

The challenge that stands before us is not merely navigating the sea of uncertainties but acknowledging and embracing the inherent fluidity and unpredictability of the future landscape. How can one make viable predictions while remaining adaptive and open to the ever-changing currents of societal, technological, and environmental evolutions?

### THE TUG OF WAR BETWEEN PREDICTION AND UNCERTAINTY

Delving deeper into the Uncertainty Dilemma, we find ourselves in a tug of war between wanting to pinpoint exact trajectories for the future and accepting that the future is a mutable entity, susceptible to sudden changes and unexpected events. This tension beckons a nuanced approach that gracefully balances well-founded predictions with a readiness to recalibrate as the unknown unfolds.

Whether they turn out to be right or wrong, predictions still have inherent value. Engaging with a prediction obliges us to dissect it to investigate the parameters and influences that form its basis. This process inherently fosters critical thinking and a deeper understanding of the relevant issues at hand.

Moreover, even a wrong prediction can be illuminating, helping to highlight unforeseen variables or encouraging a more nuanced understanding of a situation. It necessitates an exploration of alternative outcomes and can foster a mindset that is prepared to respond flexibly to a range of potential futures.

### DECIPHERING THE SIGNALS FROM THE NOISE

In the complex web of fluctuating trends and emerging phenomena, a crucial aspect of navigating the Uncertainty Dilemma is the ability to sift through the noise to identify significant signals that hint at potential futures. Here, analytical rigor and keen perceptiveness become invaluable assets, aiding in the construction of plausible narratives while remaining attuned to the unexpected shifts that demand a reevaluation of established trajectories.

### EMBRACING THE UNCERTAINTY AS A CATALYST FOR INNOVATION

Yet, within this uncertainty lies an untapped reservoir of potential. By accepting the unpredictable nature of the future, we create a fertile ground for innovation, where fresh perspectives emerge and novel solutions can be forged. The Uncertainty Dilemma, therefore, not only represents a challenge but also offers a vibrant canvas where the richness of diversity and complexity can birth unprecedented innovations.

## THE PATH FORWARD

As we stand on the threshold of tomorrow, grappling with the Uncertainty Dilemma, it becomes incumbent upon us to foster a mindset that is both grounded in reality and open to adaptability. A mindset that seeks not to control the future rigidly but dances harmoniously with the fluid dynamics of change, steering the vessel of foresight with a hand that is both firm and flexible.

In the evolving dialogue on the Futurist's Trilemma, we will continue to venture deeper into this rich landscape, progressively building a roadmap that acknowledges the vivid spectrum of possibilities presented by the future, a roadmap shaped with a respectful nod to uncertainty, a critical but open mind, and a spirit ready to harness the unexpected as a force of innovation and transformation.

As we steer forward, we will further delve into the remaining pillar of the Futurist's Trilemma, the Action Dilemma, synthesizing our journey into a harmonious approach to envisioning and crafting futures replete with potential and grounded in discerning wisdom. Stay tuned as we unravel the nuanced dance between action and contemplation in the vibrant tapestry of futurism.



### 3. THE ACTION DILEMMA

In a world where the sands of time continuously shift, laying a firm groundwork becomes not just a necessity but a Herculean task, bringing us to the pivotal axis of the Futurist's Trilemma: The Action Dilemma. This final cornerstone urges individuals and organizations to not only envision prospective futures but to engage actively and pragmatically with the realities they foresee. The dilemma here lies in the act of initiating decisive steps, coupled with the dread of potential missteps, in navigating a future rich in uncertainties.

The Action Dilemma is the battlefield where foresight meets execution, where visionary ideas encounter the pragmatic demands of real-world implementation. It is a call to arms, challenging futurists to translate predictions and anticipations into strategies and actions that are both feasible and adaptive.

### WALKING THE TIGHTROPE OF DECISION-MAKING

The path of the futurist is akin to walking a tightrope, with the depth of contemplation on one side and the exigency of action on the other. Balancing this delicate act necessitates a deep understanding of the current realities while nurturing a readiness to evolve as the envisaged futures start to unravel. It asks of us not just to be seers but doers, translating vision into tangible action without succumbing to paralysis by analysis.

## CULTIVATING A RESPONSIVE ACTION PLAN

As we delve into the practicalities of the Action Dilemma, it becomes imperative to cultivate action plans that are responsive and flexible. This involves forging strategies that can adapt swiftly to emerging trends and unforeseen developments, thus fostering a dynamic interface with the future, where action and reflection function in a symbiotic relationship, continually informing and reshaping each other.

## THE COURAGE TO ACT AMIDST UNCERTAINTY

Engaging with the Action Dilemma also demands a degree of courage – the courage to act amidst swirling uncertainties, to make informed gambles rooted in foresight, and to commit to decisions with the awareness that the path might need adjustment as new landscapes emerge on the horizon. It is a courageous embrace of fluidity, giving birth to a dynamic and responsive engagement with the unknown realms of tomorrow.

## FRAMING THE FUTURE WITH ACTIONABLE INSIGHTS

As we forge onward, the onus is on us to frame the future with actionable insights, marrying foresight with decisive actions that bear the imprint of deep contemplation, a respectful acknowledgment of uncertainties, and a vibrant imagination that fuels innovation.



## FINAL THOUGHTS

As we stand at the junction where the trilemma converges, the journey of the futurist blossoms into a rich, multifaceted engagement with tomorrow, woven from threads of imagination, uncertainty, and action. It is a narrative that recognizes the potent force of dreams, the unforeseen variables that may alter the course, and the decisive steps that carve paths into the unknown.

Navigating the Futurist's Trilemma is not just an intellectual exercise; it is a dynamic dance that invites us to envision boldly, to anticipate the unforeseeable, and to act with a heart grounded in the present and eyes fixed on the horizon of possibilities. It is here, in this vibrant interplay of imagination, uncertainty, and action, that the futurist finds the crucible for shaping a future replete with potential, wisdom, and the hopeful heartbeat of proactive engagement. Let us step forward with a spirit of adventure as we sculpt the contours of tomorrow, guided by the beacon of the Futurist's Trilemma.



*Thomas Frey is a futurist and speaker based in the USA.  
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## Signals in the Noise

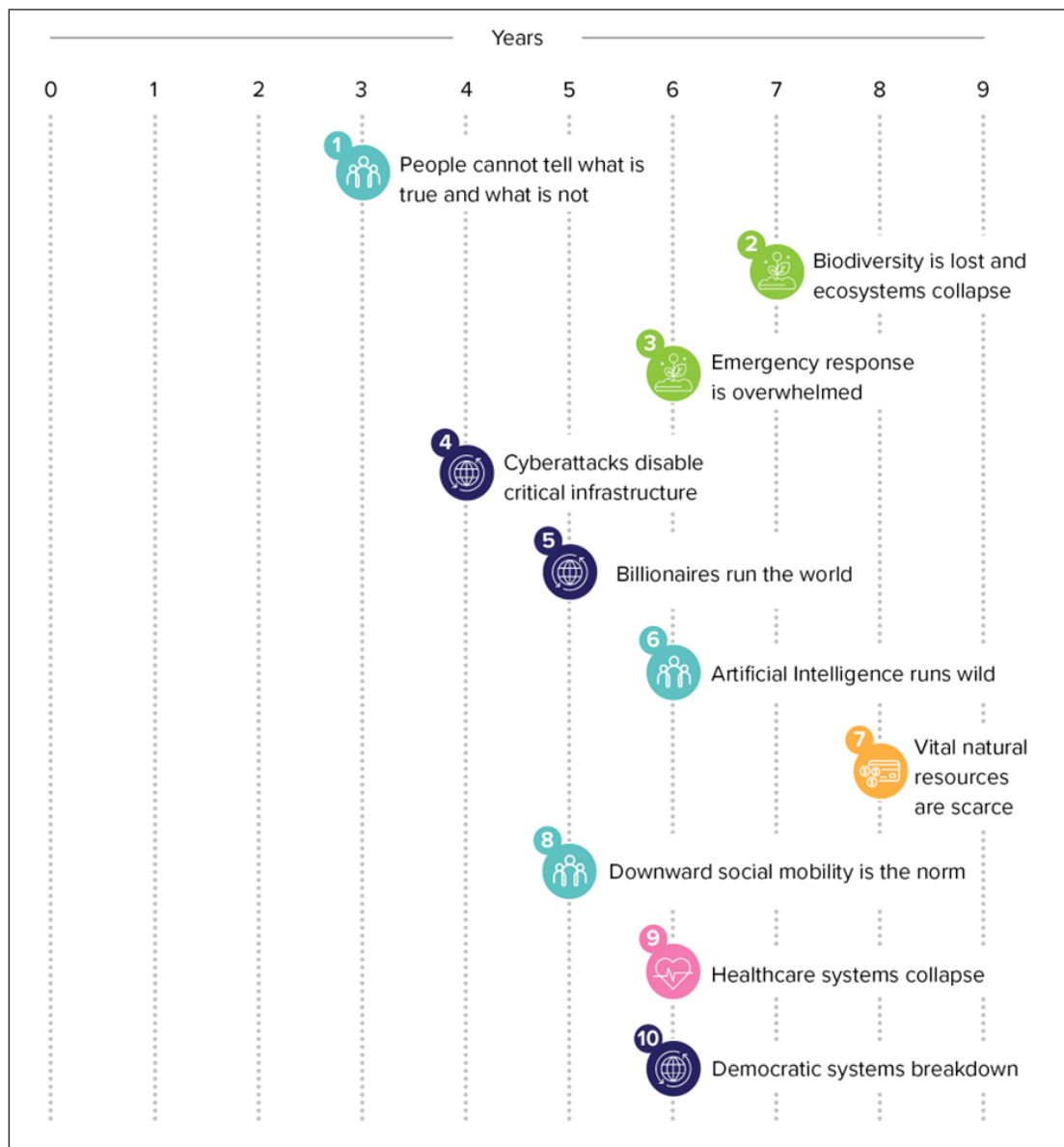
# DISRUPTIONS ON THE HORIZON

by Kristel Van der Elst, Director General, Policy Horizons Canada



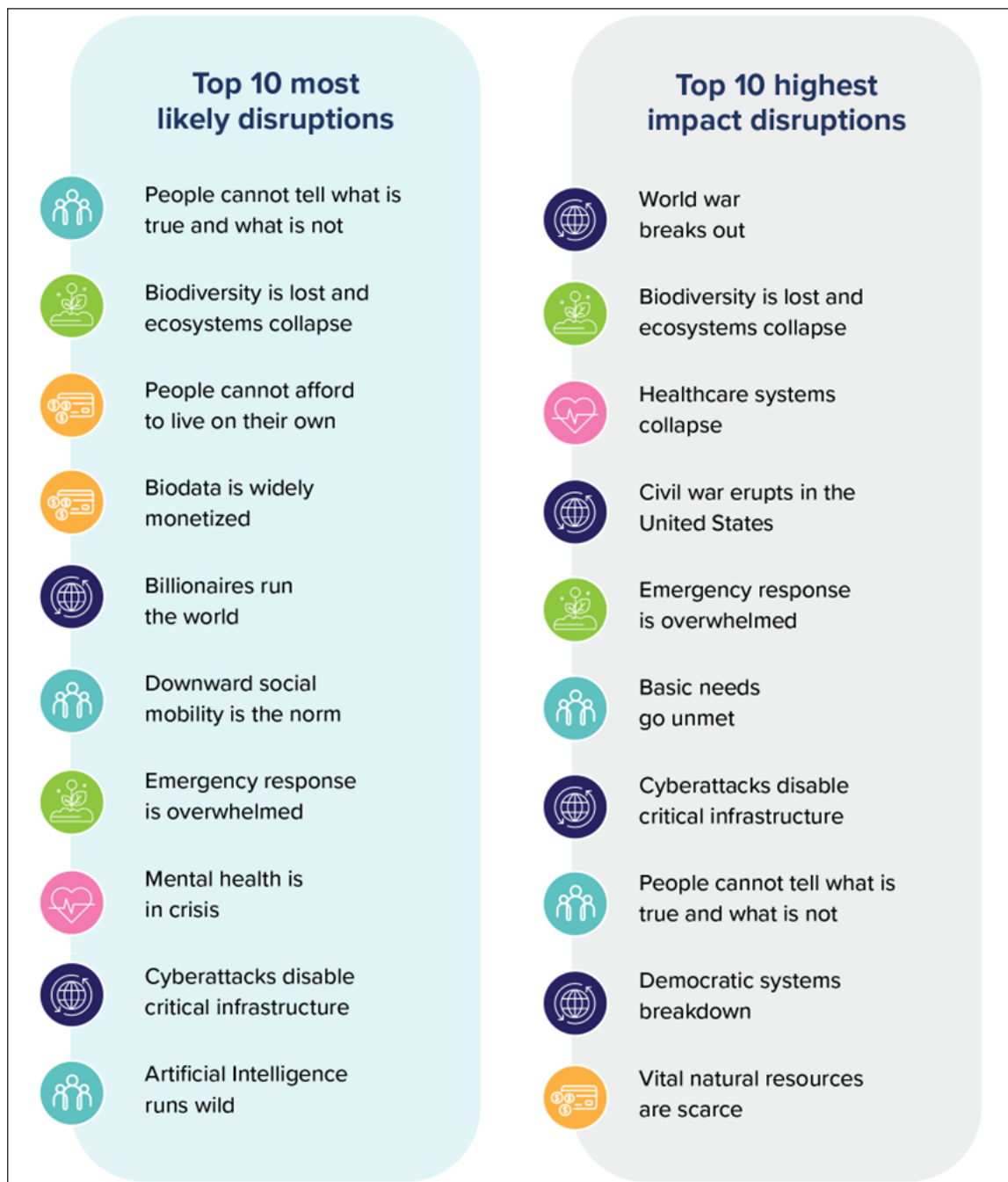
Today, the world faces multiple complex crises that can contribute to unexpected disruptions. The Disruptions on the Horizon report produced by Horizons Canada stems from a critical question many decision makers grapple with: what disruptions should we anticipate next?

### TOP 10 DISRUPTIONS BY LIKELIHOOD AND IMPACT



## Signals in the Noise

### DISRUPTIONS ON THE HORIZON



### PEOPLE CANNOT TELL WHAT IS TRUE AND WHAT IS NOT

The information ecosystem is flooded with human- and Artificial Intelligence (AI)-generated content. Mis- and disinformation make it almost impossible to know what is fake or real. It is much harder to know what or who to trust.

More powerful generative AI tools, declining trust in traditional knowledge sources, and algorithms designed for emotional engagement rather than factual reporting could increase distrust and social fragmentation. More people may live in separate realities shaped by their personalized media and information ecosystems. These realities could become hotbeds of disinformation, be characterized by incompatible and competing narratives, and form the basis of fault lines in society. Research and the creation of scientific evidence could become increasingly difficult.

## Signals in the Noise

### DISRUPTIONS ON THE HORIZON

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Public decision making could be compromised as institutions struggle to effectively communicate key messaging on education, public health, research, and government information.

### **BIODIVERSITY IS LOST AND ECOSYSTEMS COLLAPSE**

There is an irreversible loss of biodiversity and a collapse of ecosystems due to habitat destruction, overexploitation, pollution, and climate change.

Ecosystems and the wide range of animals, plants, and microorganisms within them keep the natural world in balance. Ecosystem collapse and the loss of biodiversity could have cascading impacts on all living things, putting basic human needs such as clean air, water, and food in jeopardy. Health and wellbeing could severely suffer as malnutrition, disease, and other health problems become more prevalent, leading to increased mortality rates, healthcare system collapse, and overall reduced quality of life. Key industries like farming, fishing, and logging could be hard hit, leading to major economic losses and instability. Society could become fragile as many people may be unable to meet their basic needs, let alone higher-order needs like a sense of belonging, self-esteem, and self-actualization. With a heightened sense of insecurity over a lifetime, conflicts could become violent, and people could become more vulnerable to authoritarian and anti-establishment groups or leaders.

### **EMERGENCY RESPONSE IS OVERWHELMED**

Extreme weather events such as fires, floods, tornados, and hurricanes are frequent and severe. The world is in a perpetual state of emergency, and unable to respond adequately and sustainably.

As climate change increases the frequency and severity of natural disasters, even previously unaffected areas could be impacted. Emergency responses may be unable to keep pace. The human impact of constant co-occurring disasters in Australia could be severe, with recurring loss of life and widespread destruction of infrastructure, property, and businesses. Millions of people may be displaced as weather conditions become intolerable and entire regions become uninsurable, preventing people from getting mortgages. The stress and trauma of these displacements, in addition to economic losses from collapsing real estate markets, could contribute to a worsening mental health crisis. Extreme weather events could also result in regular shocks to trade, volatile price of goods, and increased travel restrictions. Meanwhile, an already fragile healthcare system may crumble under surging demand. Internationally, cooperation may decline as many countries turn inwards to respond to their own emergencies. Alternatively, nations may choose to pool resources and collaborate globally in the face of a common threat.

### **CYBERATTACKS DISABLE CRITICAL INFRASTRUCTURE**

Interruptions to essential services such as the Internet, electricity, transportation, water, and food supply systems are common due to regular cyberattacks, disrupting everyday life.

Technology is an increasingly fundamental element in Australia's critical infrastructure. Moving forward, cyberattacks could have a significant impact on societies' ability to provide essential goods and services, including key operations and services delivered by governments. Frequent disruptions of digital services due to cyber threats could renew demand for in-person services, and lower trust in services, technology, or government policy. Public sentiment could further shift against technology and digital services as more complex systems (such as AI) are implemented but may be poorly understood or distrusted by users. The global competition for technological dominance may add further complexity, as geopolitics, technology, and economics converge.



## Signals in the Noise

### DISRUPTIONS ON THE HORIZON

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#### **BILLIONAIRES RUN THE WORLD**

Extremely wealthy people use their platforms, firms, foundations, and investments to shape public policy—imposing their individual values and beliefs and bypassing democratic governance principles.

As the extremely wealthy increasingly influence public opinion and public policy to secure their own interests, the future of democracy and global governance could be at risk. More billionaires could leverage their control over strategic technologies and enormous wealth concentration to enter arenas formerly reserved for states, such as space exploration and diplomacy. As their power grows, billionaires could gain warfare capabilities and control over natural resources and strategic assets. Some might co-opt national foreign policy or take unilateral diplomatic or military action, destabilizing international relations. This may introduce new uncertainties for governance structures, as private individuals do not have the same decision-making constraints as diplomats, politicians, and military professionals.

#### **ARTIFICIAL INTELLIGENCE RUNS WILD**

AI develops rapidly and its usage becomes pervasive. Society cannot keep up, and people do not widely understand where and how it is being used.

Market and geopolitical competition could drive rapid AI development while potentially incentivizing risky corner-cutting behavior and lack of transparency. This rapid development and spread of AI could outpace regulatory efforts to prevent its misuse, leading to many unforeseen challenges. The data used to train generative AI models may infringe on privacy and intellectual property rights, with information collected, stored, and used without adequate regulatory frameworks. Existing inequalities may amplify as AI perpetuates biases in its training data. Social cohesion may erode as a flood of undetectable AI-generated content manipulates and divides populations, fueling values-based clashes. Access to essential services may also become uncertain as AI exploits vulnerabilities in critical infrastructure, putting many basic needs at risk. As an energy- and water-intensive technology, AI could also put pressure on supplies of vital resources, while accelerating climate change.

#### **VITAL NATURAL RESOURCES ARE SCARCE**

The demand for vital natural resources such as water, sand, and critical minerals outpaces supply. Access to resources is either limited by a dwindling finite supply or controlled by a few suppliers.

Continued population growth, climate change, extreme weather events, and conflict outbreaks may further limit resource availability. Water scarcity, food insecurity, and energy shortages could become extensive, making basic needs harder to secure, and leading to cascading impacts on human health and social stability. The strategic and economic importance of these resources could drive geopolitical conflicts, as countries compete for access and control of an increasingly limited and valuable supply. Prices of resources could become volatile, and economies unstable as once-abundant vital resources become scarce. In addition, dependence on historically important resources like oil may decline while other resources like critical minerals become key inputs in emerging technologies and markets. This competition and instability could devolve into armed conflict, driving nations into war over resources. Furthermore, overexploitation of resources could cause environmental degradation, diminishing biodiversity and ecosystems, and worsening climate change impacts.

#### **DOWNWARD SOCIAL MOBILITY IS THE NORM**

People cannot enter the housing market and face increasingly insecure work arrangements. Many people find themselves in lower socioeconomic conditions than their parents.

# Signals in the Noise

## DISRUPTIONS ON THE HORIZON

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With housing becoming increasingly unaffordable and work arrangements more precarious, socioeconomic conditions for everyone could decline from one generation to the next. People may lose trust in governments' ability to help them achieve social mobility, especially when it comes to key factors such as housing, education, and the cost of living. Those facing multiple barriers may be even more disadvantaged and have difficulty accessing services. As people lose hope in improving their lives, mental health challenges and associated economic and social stresses may increase. Meanwhile, as the extremely wealthy continue to accumulate a larger share of the wealth, resentment may deepen until calls for greater wealth redistribution reach a critical point.

### HEALTHCARE SYSTEMS COLLAPSE

The healthcare system breaks down and cannot respond to the daily needs of us all, much less to crises.

### DEMOCRATIC SYSTEMS BREAK DOWN

Authoritarian regimes vastly outnumber democracies and the struggle between the two ideologies is messy in many countries. Some authoritarian countries experience regular pro-democracy protests, while in many democratic countries, duly elected officials pass legislation that dismantles key democratic institutions.

Democracy is showing signs of decline around the world. Even countries with a long history of democratic values and systems are facing challenges to their democratic institutions. Preserving democratic systems could become even more challenging as the basis for values-based divisions in society broadens. For example, innovation in human augmentation and biodigital intervention in natural ecosystems might create insurmountable fragmentation along ideological lines. In addition, extremely wealthy individuals could continue to enter the realms of public policy, using their wealth and influence to impose their individual values, beliefs, and projects on society at large. As society fragments into distinct groups, each with its own perception of the world, it could become impossible to build national consensus and design policies, programs, and messages that serve the population.