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LIGHTS- Innovation/Entrepreneurship

Regaining control in troubled times: Art Thinking as a method in a PUCA world

ESCP Impact Paper No.2024-19-EN

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Abstract

In the late 1980s, the US military introduced the VUCA framework to define the challenges of a post-Cold-War era characterized by Volatility, Uncertainty, Complexity, and Ambiguity. Over time, this concept transcended military strategy, influencing management paradigms as businesses adapted to a VUCA environment. However, according to many scientific models, our world is marked by a probable dystopian future due to numerous ecological challenges. We propose to characterize this world with a new acronym, PUCA, that is Probable, Unacceptable, Correlated, and Anticipated. In this PUCA paradigm, the imperative lies in addressing probable yet undesirable futures, such as climate change, with imaginative and strategic vigour. Art Thinking offers a complementary method for navigating this landscape. Drawing from the practices of artists, Art Thinking encourages embracing vulnerability and fostering creative transformation to envision and realize improbable solutions when the probable becomes unacceptable.

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Regaining control in troubled times: Art Thinking as a method in a PUCA world

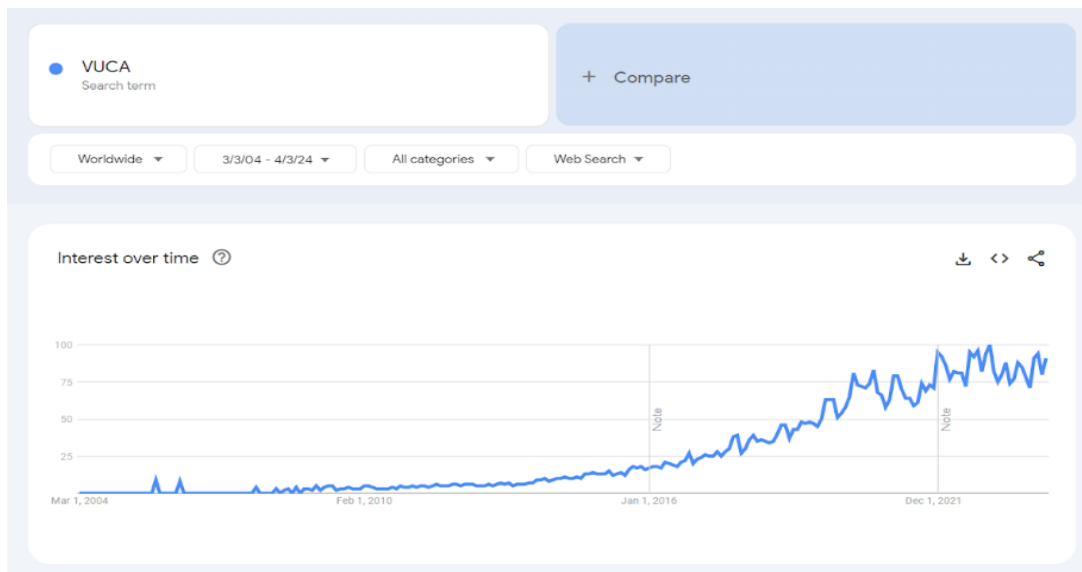
Introduction

VUCA was coined at the U.S. Army War College in 1987, distilling ideas from Warren Bennis and Burt Nanus' 1985 book *Leaders: The Strategies for Taking Charge* into the VUCA acronym. Then in 1991, Herbert Barber shared the term VUCA outside the military in a conference presentation that was published the following year (Barber 1992). A decade later, this framework was adapted to address management problems, and business strategies adapted to a VUCA world. As Bennett and Lemoine (2014) wrote in the *Harvard Business Review*, a VUCA world felt like "Hey, it's crazy out there!" But that environment could be navigated to return to less complex, and less uncertain, positive outcomes.

Now, we face that same feeling of "it's crazy out there!" but the diagnosis of a VUCA world no longer holds. Instead, we are in what we term a PUCA world. The PUCA world is a dystopian future that is Probable, Unacceptable, Correlated, Anticipated. We are no longer navigating uncertainty in order to snap the future back to an ordered world. Instead, we are encountering frontiers like climate change that are both probable and deeply undesirable. In this PUCA paradox, enormous imaginative and strategic energy is required to preserve the world and to protect the status quo from these undesirable futures. A new strategic framework of Art Thinking can help us navigate this PUCA paradox. Learning from the methods of artists can contribute to find improbable solutions that avert these dystopian futures and redirect our course when we want to continue to build optimistic futures but also must work imaginatively to protect what we might take for granted.

From the 20th to the 21st century: From a VUCA environment to a PUCA world

VUCA strategy offered an appealing return to confidence in leading through challenges that lacked the us-vs.-them clarity of the Cold War era. *Volatility* spoke to how quickly everything could change and thus was difficult even to define. *Uncertainty* accounted for both the known and the unknown unknowns and the shrinking extent to which past data could offer insights into the future. *Complexity* spoke to the difficulty of establishing causal relationships due to numerous interconnected variables. *Ambiguity* referred to a difficulty in perceiving and interpreting the complexity of conditions and the lack of agreement about the basic rules of the game. In a VUCA world, it is hard to know the problem, but once the problem is identified, we can reach identifiable solutions. In the business world, VUCA has been used to describe market disruptions brought on by technology, market collapse brought on by economic crises, and societal upheaval such as that brought about by the coronavirus pandemic. It is perhaps not surprising that VUCA has trended. The graph below shows the increase and then volatility in Google search queries for VUCA between 01/01/2004 and 01/01/2024.



While we do not question the continued relevance and usefulness of VUCA, we do question the increasing mechanization in many academic and economic spheres, and the rigidity that has been confused with rigor in navigating VUCA circumstances. We propose a complementary perspective of PUCA (for Probable, Unacceptable, Correlated, Anticipated) that takes into account the vulnerability of VUCA itself: the promise of an ability to solve the world by returning it to its past order. In ecologically challenging times, we need tools to address strategic problems that we might not know how to solve. PUCA helps us avoid the trap of thinking we are simply maintaining a world instead of being asked to engage imaginatively in navigating a potentially dystopian future.

In the PUCA paradox, P stands for probable because we actually *can* model the probability of some phenomena; we just do not like what those models predict. Chief among these is the issue of climate change and biodiversity. Scientific publications as early as the 1990s discussed the gradual decline of snow cover in the Alps (Bultot et al., 1994). This trajectory doesn't align with VUCA. Where VUCA would suggest we navigate through this ambiguity to return to the prior world, instead we must respond to the probability by accepting that the future is moving in a direction that does not look like the past, and that cannot be returned to the past without effort. Many other reports have suggested these unsatisfactory and dangerous ecological futures with reasonable probability. The continued collection of empirical data (Turner 2014) has supported the 1972 so-called Meadows report suggesting ecological decline. This idea of probability based on years of accumulated empirical data applies to the phenomenon of obesity as well. While there can be a variety of healthy body sizes, for years, scientists have been pointing out trajectories of increasing obesity rates in the population correlated with increasingly fatty and sugary diets and sedentary lifestyles, particularly associated with the growing use of digital technology (Manson et al., 2004). It is not that we are dealing with improbable times. It is that probabilities point to trajectories we do not like and have not encountered before. The future has proven probable, but in ways that are likely unacceptable.

Faced with these probable dynamics modeled by scientists, and widely agreed upon in the academic community, economic and political decision-makers must ask whether these trends are acceptable or not. Taking the example of snow cover, it was desirable to develop a long-term strategy aimed at investing in a transition away from skiing as the economic base of affected territories, or to address the root causes of the warming phenomenon. Many possible pathways emerge but all of them require avoiding a stance of denial or defeatism to engage with probabilities that are not acceptable.

We now turn to the C and the A of PUCA: Correlated and Anticipated. As complexity has made it harder to map causal links, forms of analysis rooted in simple correlations have been gaining momentum for several years. This approach is fueled by two very distinct phenomena. Firstly, there has been a rising awareness of what some have called "wicked problems," i.e., problems that can't be solved through a simple and unilateral measure and where solutions are often interdependent on numerous dimensions (social, economic, political, ecological, etc.). Second, there has been a proliferation of technologies that enable the production of ever more data. Together, this approach brings us understanding of correlated or clustered futures and a reliance on computational technologies – and in particular the large language learning models of artificial intelligence. Where in a VUCA paradigm, we might have trusted computers to crunch the numbers and to simplify issues for us, in a PUCA world there is an enormous risk of overly trusting computational tools that build models from past data. If we optimize computational solutions without necessarily understanding the underlying mechanisms, we risk the possibility of systems failures we cannot yet map. And we lose our greatest resources to avert the probable and dystopian future: our collective capacity to navigate un-templated futures with the human capacities for imagination in the face of the unknown.

Artificial intelligence, although potent and transformative in various beneficial aspects, amplifies these risks of over-reliance on intricate calculation and underestimation of changing circumstances. We can depend too much on analytical tools and too little on important questions (Akerlof 2020). Data analysis is an important guide for, but cannot replace, leaders making decisions. Difficulty arises as our calculative tools increasingly forecast catastrophic futures while our strategic frameworks contain unacknowledged assumptions of a reversion to the mean of optimistic trajectories toward progress. Confronted with the magnitude of these problems, recognizing a PUCA world tends to produce two effects: anxiety and inaction. This psychological state speaks to the A of anticipated— anxiety and a psychological state of expectant dread. Anticipation hinders the requisite process of creating new solutions. Here, we share a path to address these challenges.

Table 1: Two complementary visions of the organizational environment

	VUCA	PUCA
Dimensions	Volatile, Uncertain, Complex, Ambiguous	Probable, Unacceptable, Correlated, Anticipated
Example		
- Healthcare	COVID-19 pandemic: Difficulty in navigating a sudden and global health crisis and the need to adapt, to enact emergency health protocols, and to stabilize the situation.	Rise in early-onset cancers: A significant trend impacting numerous health conditions and treatments without understanding why or being able reliably to return to the prior state of affairs.
- Tourism	Rapid spread of platforms like Airbnb creates a major strategic challenge for traditional incumbent players who adjust to a new business-strategy landscape.	Closure of ski resorts due to declining snowfall and existential shift in the natural ecosystem affecting all organizations and community members
- Insurance	Disruption of insurance markets or suspension of insurance access due to armed conflicts (e.g., war in Ukraine, or conflicts with the Houthis in Yemen).	Withdrawal of insurers from markets overly exposed to climate risks (e.g., coastal cities in particular).

Business strategy in a PUCA world: Art Thinking as a method

If we face undesirable circumstances with some probability, if these challenges contain correlated risks, and if we have outsourced the analysis of these risks to complex computer models, how do we proceed in leading organizations through these circumstances? The PUCA environment still offers us many alternatives but accessing these pathways to progress requires more than the strategies of the VUCA world to restore order. Navigating a PUCA world requires agility as well determination. We need to lead from questions without visibility on known solutions. We need methods that allow us to decide based on values, not just intended outcomes. The purpose is not to eliminate vulnerability but to lean into it. The method is to take risks, as artists have, to create the world we wish to live in. As the French sociologist Edgar Morin wrote, the possible is not the certain, and each individual, with their modest strengths, can create the improbable.

Indeed, artists who have left their mark on history—from the Impressionists to Pablo Picasso to Banksy—have all created the improbable. They have risked engaging in a process not of going from a known point A to a known point B but inventing point B. In art, and in our world to date, that point B world can signify progress. The point B world can be a new normal, destination that was neither planned or expected (Whitaker, 2016) but that improves the world. But what do we do when the world is evolving ecologically and the pillars of democracy are fragile enough that a point B world could be the probable dystopian future? What do we do when the maintenance and repair of the world requires a kind of imagination that we associate with excessive risk?

After several years of scientific research, we have formalized a method of Art Thinking in which teams engage in a social process of creation to realize the improbable with certainty. This method follows an agile approach without being centered on clients or users (Bureau, 2022). The goal is not to respond to what already exists or to what can be modeled. The challenge is rather to create that which specifically does not yet exist. By engaging in the methods of artists, teams can manage the paradoxes of the PUCA world and escape from probable trends that seem unacceptable. This method is based on 6 practices: donate, deviate, destroy, drift, dialogue, and display. Each practice has a conceptual foundation and empirical evidence drawn from the history of creation as a process not only in art, but also in science and the business world. This method has been taught in a workshop called "[The Improbable Seminar](#)." Designed and conceived at ESCP Business School in collaboration with the visual artist Pierre Tectin, the format improved over the span of more than ten years as dozens of facilitators and hundreds of participants from leading companies and MBA programs have been involved in it.

Table 2: How Art Thinking addresses the challenges of a PUCA world

PUCA World	KPI of the Art Thinking Method
Probable (based on scientific models)	Improbable: The outcome is always improbable and this openness allows for new perspectives that broaden horizons beyond the probable trajectory.
Unacceptable (based on values)	Embedded: The outcome is linked to the values and aspirations of the creators; it is up to them to determine what they find unacceptable.
Correlated (based on algorithms)	Subversive: The outcome transforms existing conventions and allows for altering correlations.

Anticipated (based on psychological perception)	Resourceful: The outcome requires very few resources; it can be developed rapidly and by anyone from a psychological standpoint of creation, not dread.
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Art Thinking differs from being an artist in a number of ways. First, there is a myth of the lone artistic genius and the idea of invention as a singular pursuit, but in Art Thinking creation is social. It is a team pursuit. Navigating a PUCA world requires all of us and benefits from the wisdom of the team. Second, while being a professional artist may feel like an avocation or a profound life risk that requires its own dignity, thinking like an artist is open to anyone, even those who are highly skeptical of contemporary art. These mindsets can be learned. They can be enacted as a structured set of steps and processes, or accessed as a form of mental plasticity—as a boost of agility and lateral strength in the midst of challenging circumstances.

During the Improbable seminar, the executives taking the workshop learn to create artworks. In this process, they learn tools to combat the PUCA world: how to design the improbable, to question certainty, and to be efficient with the resources they have. Across the ten years of the Improbable Workshop—collaborating with cultural institutions such as Centre Pompidou, Louvre Museum, and Lafayette Anticipation, with students in over thirteen countries, and with over a hundred schools, universities, and companies—the result is always the same: the new imaginaries created help participants to see and act differently. Beyond making artworks that reframe each team's core concerns in a new light, participants learn a method that can be reused in their professional context. The way to address disagreeable and probable futures is to imagine improbable ones intentionally, and then to cultivate a method that can create the improbable with certainty. In the process, we might think about art—and entrepreneurship—differently as a process not of becoming a super genius but of engaging together in the profoundly artistic pursuit of trying to change the future.

Our understanding of the world cannot be confined to the narrow lens of VUCA alone. Indeed, as many significant trends can be analyzed through scientific and predictive models, the emergence of the PUCA paradigm necessitates fresh logics and perspectives to guide our actions. In this era in which we confront the specter of global crises and the prospect of an increasingly automated world, the Art Thinking methodology offers a valuable tool. Redefining AI as the "social algorithm" of artistic intelligence, Art Thinking provides a framework for creating the improbable when the probable becomes unacceptable. By embracing the principles of artists and learning the social processes of creation, we equip ourselves with the means to transcend the limitations of traditional approaches and chart a course towards a more sustainable and desirable future. It is by risking creation that we are most able to recreate and preserve the world we want to live in.

References

- Akerlof, G. A. (2020). Sins of omission and the practice of economics. *Journal of Economic Literature*, 58 (2): 405-18. DOI: 10.1257/jel.20191573
- Barber, H. F. (1992). Developing strategic leadership: The US Army War College experience. *Journal of Management Development*, 11(6): 4-12. <https://doi.org/10.1108/02621719210018208>.
- Bennett N. & Lemoine, G.J. (2014). What VUCA really means for you. *Harvard Business Review*, 92(1/2).

Bennis, W. & Nanus, B. (1985) *Leaders: The Strategies for Taking Charge*. New York: Harper & Row.

Berinato, S. (2014). A Framework for Understanding VUCA. *Harvard Business Review*, 59(9).

Bultot, F., Gellens, D., Schädler, B., & Spreafico, M. (1994). Effects of climate change on snow accumulation and melting in the Broye catchment (Switzerland). *Climatic Change*, 28(4): 339-363.

Bureau, S. (2022). *Agile methods: How can we stop hyper-focusing on clients and why?* ESCP BS White paper, Paris.

Conklin, Jeffrey (2006). *Dialogue Mapping: Building Shared Understanding of Wicked Problems*. Chichester, England: Wiley.

Manson, J. E., Skerrett, P. J., Greenland, P., & VanItallie, T. B. (2004). The escalating pandemics of obesity and sedentary lifestyle: a call to action for clinicians. *Archives of Internal Medicine*, 164(3), 249-258.

Ritter, D. (2014). When to act on a correlation, and when not to. *Harvard Business Review*, March 19.

Turner, G. (2014). Is global collapse imminent? An updated comparison of the Limits to Growth with historical data. *MSSI Research paper*, 4: 21.

Whitaker, A. (2016). *Art Thinking. How to Carve Out Creative Space in a World of Schedules, Budgets, and Bosses*. New York: Harper Business.