

Ten Enduring Lessons of Technology, Creativity and Moral Imagination—Pt. 2

Charity Dean

Continuing her earlier talk, Charity Dean offers six final lessons for leading in complexity. From learning the “languages” of different fields to leading with authenticity, she shows how adaptability, imagination, and courage enable leaders to build what has never existed.

Lesson 5: Become Fluent in Multiple Languages

In Lesson 5, Charity Dean urges leaders to develop fluency across multiple “languages”—not just spoken tongues or programming syntax, but the distinct vocabularies of disciplines, sectors, and institutions. She explains how every environment she has entered—medicine, government, tech, and defense—operates with its own internal code, consisting of acronyms, idioms, and cultural expectations. To gain trust and be effective, she says, leaders must learn to speak these languages with precision and empathy.

She offers an amusing example from her early days in public health. Among doctors, she could use shorthand like “dew drops on rose petals” to describe clinical symptoms—a phrase incomprehensible to outsiders but deeply specific to her peers. That kind of fluency was second nature. But later, in civilian government and eventually Silicon Valley, she found herself in rooms where the acronyms and assumptions were foreign. In her first conversation with a venture capitalist, she recalls being confused by terms like “PMF,” and “GTM strategy.” Instead of pretending, she admitted she didn’t know. That vulnerability created trust—and the investor backed her anyway. Rather than shrink from unfamiliar environments, approach each one with discipline, curiosity, and determination. She eventually became fluent in the languages of venture capital and national defense—two arenas she says use even more jargon than medicine.

Dean’s method for learning new languages is relational. Whether working with a fellow doctor, a tech engineer, or a Pentagon official, she engages with empathy and intentional listening. She frames this as learning someone’s “love language,” borrowing the term to emphasize care and humility. It’s not just about communicating—it’s about leading. Fluency, she argues, enables leaders to cross organizational “membranes,” work with teams more technically skilled than themselves, and build bridges across disciplines. In a fragmented world, such fluency is an act of service—and a leadership imperative.

Lesson 6: Pattern Match on Systems and Super Systems

This fluency becomes the foundation for Lesson 6: the ability to pattern match across systems. Once you understand how various domains operate, Dean says, you can begin to see their structural similarities and apply insights from one system to another. This cross-disciplinary pattern recognition allows leaders to create entirely new categories of products, strategies, or institutions—especially in fast-evolving fields.

Dean explains that she didn't understand "product-market fit" through startup books. Instead, her background in genetics and epidemiology helped her connect product iteration to genetic drift and market adaptation to genetic shift. That scientific framework allowed her to grasp a core business concept in a completely different light.

She also shares a story of designing a data framework for her platform. To help her engineers conceptualize it, she returned to her neuroanatomy textbook and described the architecture in terms of the central nervous system—data flowing like signals through neurons, with central and peripheral processing. That analogy helped them create a federated AI structure capable of handling sensitive government data in a secure, distributed way.

Even cybersecurity—initially uninteresting to her—became compelling when she realized it was structured like epidemiology. Terms like viruses, infection vectors, containment, and attribution mapped directly onto her public health knowledge. That insight not only deepened her understanding of cybersecurity but also sparked new ideas for approaching biosecurity.

To Dean, this kind of interdisciplinary pattern recognition isn't optional—it's critical. In a world of converging complexity, innovation comes from those who can see across silos, draw from deep wells of knowledge, and create something new by making connections others miss.

Lesson 7: Garbage In, Garbage Out

In this more personal lesson, Dean explores how working with artificial intelligence reshaped her view of leadership. In AI, "garbage in, garbage out" is a well-known principle: if a model is trained on flawed data, its outputs will be flawed too. She saw a parallel in her own life. Constant inputs from social media, the 24/7 news cycle, and overwork had eroded her clarity, dulled her imagination, and depleted her soul.

Her board intervened. They told her to unplug and take her sons to Disneyland—no laptop, no emails, just rest and joy. Though reluctant at first, she eventually surrendered to the experience. Inside a Spider-Man-themed ride with her kids, surrounded by colorful whiteboards and imaginative design, she felt something stir. That moment of unguarded delight triggered a creative breakthrough. She returned home and began outlining the architectural plan that would later support the scaling of her platform across Indo-PACOM and into broader national systems.

Since then, Dean has made a deliberate commitment to guard her "inputs." In 2024, she limited her media diet to works that bring her joy, imagination, and moral clarity: Handel's Messiah, Narnia, C.S. Lewis, Star Wars—and yes, Top Gun. These inputs, she says, are not about escapism but restoration. In seasons of stress and fatigue, what we take in shapes what we can give out. For human systems, just like machines, input quality determines output quality.

Lesson 8: Genotype and Phenotype

Dean uses a concept from microbiology to describe how leaders evolve: genotype vs. phenotype. Your genotype is your core identity—unchanging, like DNA. Your phenotype is how that identity expresses itself in the world, shaped by context and environment.

For Dean, the genotype has always been doctor. That internal compass—one who serves, diagnoses, and heals—has never wavered. But the phenotype has changed dramatically. She began as a surgeon, then moved to internal medicine, then became a public health officer, later a state official, and now leads a tech startup working with the Department of Defense.

Each transition required not just new skills, but a new mindset. At times, she's had to hold multiple phenotypes at once—CEO, CFO, legislative lead—balancing conflicting roles with grace and endurance. While the external roles may look wildly different, Dean insists they are all expressions of the same calling.

Her message to leaders is this: don't be afraid to change your phenotype. These shifts are not betrayals of your identity, but evolutions of it. Staying rooted in your genotype allows you to embrace the discomfort of change while remaining grounded in who you are.

Lesson 9: Be Willing to Go Down in Flames

In Lesson 9, Dean turns to the world of **Top Gun** to make a bold point: building something extraordinary requires total commitment, even when the risk of failure is high. As a founder, she once faced a make-or-break moment. A venture capitalist offered funding—but only if she pivoted away from her vision of AI software and became a consulting firm instead. The easier path would have been to accept. Her team was facing a payroll crisis, and the offer was tempting. But she chose to stay the course, knowing it could mean losing everything. That decision became an inflection point, solidifying not just the mission, but the shared conviction of everyone around her.

Her full-throttle commitment—what she calls “back pressure”—proved contagious. Her team, investors, and partners were galvanized. In contrast to the slower-moving culture of academia or government, she argues that the existential pressure of the private sector can actually fuel innovation. In America, she says, this kind of risk-taking is our secret weapon. Bravery is contagious. True leadership means betting on the mission, even if it means going down in flames.

Lesson 10: Lead with Authenticity

Dean closes with a reflection on authenticity—not as a performance, but as a foundation. When she founded her tech company, she didn't research the odds of success for female founders in deep tech. She assumed they were terrible and did it anyway. She was right—the statistics were grim. And yet, five years later, she's still standing.

She hasn't succeeded by blending in. She leads as her full self—curls, pearls, high heels. That external authenticity is grounded in a spiritual truth: her identity is rooted in something unshakable. She keeps Isaiah 43 taped to her wall, a verse that reminds her she is created, called, and safe in God's hands. This spiritual foundation gives her the courage to take extraordinary risks. It also gives her what she calls “sparkly Disneyland kind of freedom”—a joy that comes from knowing her value doesn't depend on success or failure.

Her final call to action is clear: Take big risks. Lead with clarity and imagination. Bet on something bigger than yourself. Bet on America.