TECHNOLOGY IS DEAD

Why Most Innovation Fails and What We Can Do About It

CHAPTER ONE:

we are human after all!
One of the greatest ironies of modern humankind is that we appear to have lost connection with our humanity; that for all our technological advancements, we appear to have regressed in our understanding of us. Reversing that picture may become our greatest innovation, perhaps even our salvation.

The advancement of humankind, of our place on Planet Earth, is not advancement if it does not benefit the whole in a sustainable fashion. Our collective humanity and its perpetually improving health and wealth, in every form, is the fundamental measure of civilization. That measure, the quality and sustainability of our collective lives, is necessarily impacted by the quality and sustainability of the individual lives of others. Not just neighbors and friends, all others. This is not a Socialistic versus Capitalistic argument, it is a logical one. We cannot live without each other, for long. Carl Sagan, the American astronomer and occasional philosopher once said, “Human history can be viewed as a slowly dawning awareness that we are members of a larger group... If we are to survive, our loyalties must be broadened further, to include the whole human community, the entire planet Earth.” The world order is in a way an ecosystem of ecosystems, one that subsumes the natural ecosystem and our own anatomical one. Its health, our health, is a matter of symbiosis, of mutual reliance. The central modality of humans is one massive circle of exchange and if one or more of the nodes in the food chain is broken, the chain will break, and all hell will break loose. The body will die. Some world leaders get this. It’s why the IMF and World Bank exist.

Beyond or before the function of collective commerce and mutual reliance is the more fundamental matter of our existence. Why are we here? It’s a question that’s been pondered since the beginning of us, with responses that range from the biblical to the obtuse. My unequivocal answer is this: we exist to create intimate connection with ourselves and others, and in that connection to foster evolution of our intellectual, physical and emotional capacities and from that the ability to create better lives. Mine, yours and theirs. It’s an answer that then begs the question, what is better? My calculus is that better means longer, healthier, and happier for all. And the research clearly points to human connection as the source code for that outcome.

One study proved that a lack of connection, a lack of not just meaningful relationships, but any kind of relationship, had a greater impact on a person’s health than did smoking, high blood pressure or obesity. In another, sponsored by Cigna Insurance, the data suggested that being lonely was tantamount to smoking 15 cigarettes a day.

So, whether the rationale is mercantile or sociological, and whether we like it or not, we are all in this together. The COVID-19 pandemic, which I am quarantined from right now, is living and dying proof. Humans are intrinsically and extrinsically connected through DNA, supply chains and the sharing of spit. Borders and discrete belief systems are man-made and therefore synthetic constructs, in defiance of the natural order, and in my view, antithetical to the point of being human. Instead of protecting us they foment sectarian delusion and perpetuate division and in division comes loss for many, often for all. Interestingly, over the centuries of civilization there has been a consistent ebb and flow in the popularity of populism, nationalism and nation-state protectionism. The motivator of division has been and always will be fear. When the citizenry of anywhere feels threatened, the calls for closing the doors become louder and more persistent. It was true in Germany in 1937 and it’s true in America today.
When economic stability returns, when the disenfranchised feel valued again, social unity begins to flow back, because fundamentally, biologically, psychologically, mechanistically, the human species is one species. We are designed to be one, to help one another, and to thrive or at least survive with as little pain and sadness as possible. If that is our intended purpose and aspiration, then the function called innovation carries a heavy load. Our capacity to innovate, to invent, to solve endemic issues (likely of our own making), to continuously evolve is critical to realizing better outcomes for you, for me, for our children, for everyone. The evolutionary survival-of-the-fittest theory, derived from Charles Darwin’s work in the 19th century still applies; it’s just the context that has changed. In the 21st century the context is and in fact must be our humanity.

If we don’t evolve us, we will go the way of the dodos and the dinosaurs. We all know that the world is changing. That’s not the problem. The problem is that we don’t embrace just how fast it’s changing, how it is impacting or could impact what we take for granted and from that we don’t take the need for own individual or collective change seriously enough. And there’s an implicit truth at play here that is creating a massive gap between the pace of technological change and humanity’s ability to keep up: It is much easier to evolve a thing than it is to evolve us.

A couple of years ago, the Santa Fe Institute, a research and education center focused on systems science, hosted a conference to explore what was titled “The Growing Gap Between the Physical and Social Technologies.” As captured in one of the conference’s workshop descriptions: “…the central hypothesis of the workshop is that the widening gap between technological advancements and lagging cultural and social structures and institutions is causing a variety of complex societal stresses and problems. These include concerns about rising economic inequality, fears over job losses due to automation, the increasing power of digital monopolies, the rise of populism, growing criticism of democratic governance systems, loss of privacy and freedom, intensifying societal polarization, a loss of faith in experts and data sources, and growing dysfunction in key institutions. Looking further ahead, emerging technologies raise questions about what it means to be human itself.” The gap is becoming a gaping hole.

Fundamentally, when technological change gets too far ahead of or out of synch with society’s prevailing operating methods and the truth of the humanity it supports, bad things tend to happen. We see many of the concerns and fears playing out in real-time as COVID-19 runs its course. The insidious virus has not only reinforced how connected we are, it has also starkly revealed how many of our systems, policies and cultural norms lag the socio-economic realities and the causal technologies that are racing ahead. It has exposed the economic divide with white collar workers holed up in their homes, still being paid via direct deposit, while blue collar workers, and often minorities, are required to risk infection in order to perform their low wage jobs because if they don’t show up they don’t get paid, and because, ironically, they have been deemed essential services. In the United States, and in many other “developed” countries, the pandemic has exposed an epidemic of social and structural divide and decay. The Santa Fe Institute workshop description was exactly right. Every condition declared then is unfolding in plain sight today. And much of it has to do with that gap. And our ongoing denial of it.

The disconnect between the pace of technological change and the pace of people and their inability to change is anecdotally captured in a story from my past. It’s a perfect tale of denial, delusion and wishful thinking, a tale of being all too human.
It was 1995. I was sitting in a window-less conference room in Cambridge, Massachusetts with my biggest client, a company called Polaroid. At that point they were a $3 billion business with a globally recognized and revered brand, known for their bold innovations involving instant photographic imaging using silver halide technology. I was with five executives who ran Polaroid’s business-to-business division, the cash cow of the monopolistic corporation. We were talking about the need for growth but not talking about the truth of the market and emerging, threatening technologies. At some frustrated point I jumped up out of my chair, grabbed a marker and drew an eight inch, slightly arced horizontal line on the whiteboard (or maybe blackboard, it was 1995 after all.) I shouted “Gentlemen, do you know what this line is?” They all looked at me with a blank expression. I said, “It’s a little swell in the ocean called digital imaging. And in five years it is going to become a tsunami that wipes out your business.” Their blank expressions turned into incredulity and their mouths began to utter curt dismissals of such a notion. “No way.” “That’s 25 years from now.” Six years later, in October of 2001, Polaroid Corporation, a venerable, seemingly dominant business that had been in business for over sixty years, declared Chapter 11 bankruptcy.

The examples of denial abound. In 2000 Blockbuster Video, then the dominant player in video rental stores in the United States (8,000) had the option to buy Netflix for $50 million. They opted not to. A short ten years later Blockbuster declared bankruptcy. Last year Netflix declared almost $20 billion in worldwide sales. The graveyard of businesses that denied the truth or just couldn’t keep up is full of headstones that also represent entire categories. Travel agencies. Buggy whips. Landlines. Taxis. The list goes on and on, of businesses and industries that simply didn’t grasp how fast the tsunami of technology fueled change was coming or were simply unwilling to accept their own need to think differently, do differently, and most importantly, behave differently. No business is exempt. No human gets a pass. All we can know for certain is that everything will change except for the need to change and that absent our embrace of our own humanity, a deeper understanding of it, and our willingness to change ourselves and the social systems we hold on to, the gap will only widen.

Arguably, this chasm between new technologies and existing societal, organizational and human capacities can be attributed to one fundamental thing: complexity. Again, it’s much easier, read simpler, to evolve a discrete thing than it is to evolve us or the web of systems and procedures we’ve created to get things done. There’s an emerging view that our systems (organizational, governmental and global) have simply outgrown our capacity to really understand them, to be able to diagnose them, and to clearly see how changing one policy or component might impact other policies or components. It’s reminiscent of Y2K, the turn of the 21st century code rush to make sure that all the massive systems in the world would not collapse when the clock struck 12:01am on January 1st, 2000. There was a widespread fear that the timeclocks in every computing machine would not be able to deal with the year value being changed from 19-- to 2--- and that the entire global infrastructure would crash. Well, it didn’t. But more interestingly what the massive $700 billion fix-it frenzy revealed is that no one really understood how these systems worked to begin with. They were just too complicated in part because they had been built over time, grandfathered code attached to new code with a maze of patches along the way. There was no master plan, no blueprint, no documentation. Each “system” was just a mind-numbing tangle of files, folders, applications, protocols and prior agreements that somehow magically
delivered whatever the amalgam was supposed to deliver, sort of. The health care system in the United States is the poster child for this unrationlized complexity, this ugly reality. We all agree that it does not work very well. We cannot agree on how to fix it because the fix is so incredibly complicated and because the system was never designed to do what it is now tasked with doing. The American education system is no less a challenge.

The evolution of modern civilization and its struggling support systems is in large part a story of grandfathering. Each generation carries forward notions, stances, traditions and ways of doing things from the past that it believes are the right way to do things today. Similarly, systems grow up over time, carrying forward input standards, output norms and linkages that made sense then, but may not make sense now. Grandfathering is a perfectly human process, because it’s easier and simpler to embrace what we have been taught or experienced than it is to create from scratch. Creating from scratch requires looking at the situation or problem with unfettered objectivity and unbridled open mindedness. It demands a level of rigor, of intellectual investment and critical thinking that pushes our biases away while welcoming in new perspectives. And it ultimately requires contemplating and accepting the challenges of the transition from the way it has always been to the new way we want it to be. Contrary to our subconscious intent, grandfathering actually adds to the layers of complexity, serving as another unintentional and unrelenting force behind the growing gap between us and the technology that is running away from us.

Grandfathering and the widening gap are really about the complexity and irrationality of human behavior. Our behaviors and associated belief systems effectively serve as the root of all our actions and decisions and from that the derivative consequences. Because our behaviors represent a complex array of biases, predilections and primal instincts, they often get in the way of the right thinking and the right doing and the ability to bridge the gap. Behaviors are a sort of constant subterfuge perpetrated by our subconscious minds. Remember the Polaroid story. The reptilian brains of those five executives were hell bent on holding on to the status quo, even when the status quo was sending warning signals. Subconsciously, they, and we, are all creatures of habit, seekers of patterns, and lovers of familiarity. We are not agents of change. In fact, change, because it represents the unknown, equals risk, and risk conjures up fear. And we will do anything in our power to avoid or minimize the likelihood of feeling fear. In 1995 those five businessmen did a subconscious calculation, an assessment of the risk associated with having to completely overhaul their company to stave off or embrace radical new technology versus their fear of going out of business. Without words spoken they collectively determined that the possible fear (and likelihood) of going out of business was less than the guaranteed fear (and difficulty) of re-engineering the entire company. So, they opted for fear number one, for doing nothing, a decision and behavior fueled by their own complex delusions and a bet that they could make it to retirement before the real threat showed up.

The complexity of human behavior and how it slows us down in the quest to keep up with technology change is also paradoxically manifest in our unhealthy and almost universal habit of looking for simple answers to complex questions. Another classic bit of human subterfuge at work, people tend to find what they want in the perceived purity of the extreme poles. Uncomfortable with nuance, details, shades of gray, and even compromise, we seek safety in the seemingly simpler world of black or white. That’s why most humans make everything into a two-horse race. Conservative versus Liberal, Isolationist versus Globalist, Christian versus Muslim, East versus
West, Millennials versus the rest of us, the list of two choice categories goes on and on.

Pole thinking is inherently flawed because nothing at a societal level is that simple. Let’s return to the health care picture for a moment. The truth about America’s health care problem is that both poles are wrong. Apparently, some number of Republicans (but not all) still want to take coverage away from 23 million Americans. That’s wrong. And apparently, some number of Democrats (but not all) want to keep the Affordable Care Act as is, even as most of the major insurers are walking away. That’s wrong too. So what’s right? What’s right is finding the middle, the complex and nuanced just right shade of gray that reflects essential compromise and a deep understanding by all the policy creating participants of how the current system works, what the tradeoffs must be, what the likely unintended consequences will be, and how we might evolve it to ensure that our health care delivery improves across every facet of performance while not bankrupting the Federal Government. The problem with that approach is that it’s complicated. Our leaders don’t seem to have the intellectual stamina or rigor to do the work to get to that point of policy development proficiency, or the principals and grace to compromise. And we don’t either. They and we jump to overly simplistic conclusions that reflect our overly simplistic pole positions to satisfy our need to just have an answer we can hold onto, to remember and identify with, even if it’s wrong. Humans are complicated.

As human behavior has gotten and will likely continue to get in the way of our own social progress and ability to close the gap, technological innovation continues to charge ahead, a modern-day beast of burden fed in large part by the realization of Moore’s Law. The law is a theoretical but since validated theorem proffered by Gordon Moore, the co-founder of Intel, that basic computing power doubles every two years, and as it does, the cost to compute halves. As power goes up, and costs go down, life altering change happens. More specifically, it becomes cheaper to apply more sophisticated technology to everything which pretty much changes everything. Think drones delivering groceries. Today’s world is far different from the world of even fifteen years ago: the rise of the world wide web as the central operating cog, the re-distribution of power from brands to consumers, the sharing economy, digital currencies, the list of fundamental shifts and consequences are profound. And we’re only just beginning to get a taste of what Artificial Intelligence and Machine Learning are going to do for (and to) the world and to us.

The before and after is concisely captured in The Fourth Industrial Revolution, a book written by Klaus Schwab, the Founder and Executive Chairman of the World Economic Forum. In it he shares the following summation:

“All, the inexorable shift from simple digitization (the Third Industrial Revolution) to innovation based on combinations of technologies (the Fourth Industrial Revolution) is forcing companies to reexamine the way they do business. The bottom line, however, is the same: business leaders and senior executives need to understand their changing environment, challenge the assumptions of their operating teams, and relentlessly and continuously innovate.”

And they need to understand humanity, beginning with themselves. The understanding of the changing environment, the understanding of new technologies and new ways of running a business or a society can only be really understood when examined through the lens of human behavior. The ability to lead more effectively, to innovate successfully, to engage technology more
seamlessly is directly tied to how well we understand who we are, why we are, how we are, and how we must change to benefit from the technology driven change train that is hurtling toward us.

It’s true that since Gordon Moore first contemplated his theorem, technology has become an efficiency and reach lever in virtually every aspect of global society, to the point that technology is everything and everything involves technology. And that radical shift has resulted in remarkable, positive impact on millions of millions of lives. In his book, *Enlightenment Now*, Steven Pinker points out the significant progress we have collectively achieved on the back of technological breakthroughs. The statistics are compelling across sectors: cleaner water, greater access to health care, declining poverty levels; all the numbers are trending in the right direction.

And yet.

If we asked each other right now about the state of the world, whether today’s reality is better or worse than yesteryear’s, most of us would hesitate to say yes. Pandemic factors aside, many people I know would declare that we’ve gone backwards, that in the developed world nation-states have lost their way and that in the developing world the explosive population growth is a recipe for disaster or at least the unscalable barrier to realizing material economic progress. The inference there is no amount of technological brilliance can offset the fundamentals of scarce to non-existent resources or the growing disparities between nations and continents. Developed or developing, something is not working.

The stark consequences of the COVID-19 pandemic and specifically the quarantining of almost 3 billion people are igniting a conversation about what it means to be human and how we want our lives to be when we get to the other side. The issues we are seeing right now we have always seen. We have known about the divides, we have read about the dysfunction and breakdowns of our society’s central systems for years, and we have talked ad nauseum about the disconnectedness experienced as part of a 24/7 connected, technology driven world. What is different in this unprecedented moment is how it feels, and in that feeling there is appearing a greater clarity and perhaps deeper understanding. The sudden loss of activity, of work, of the ability to socialize freely, coupled with the constant flood of imagery and stats capturing the staggering loss of life and the thousands of first responders and health care workers who are risking theirs everyday has brought with it a new found appreciation and a recognition that maybe, just maybe, the way it was is not the way we want it to be moving forward.

With that emerging questioning is coming a growing consensus that for all the wonder and convenience that technological innovation has brought into our lives, it’s clear that it has also brought disconnection, separation and even a loss of understanding of what it means to be human. The pushback is not, nor should it be, on technology, but rather on us and our willingness to step forward to begin to catch up with the technology curve and as importantly, to guide it. The challenge is that in order to guide it, to be able to unleashes technology’s full strengths, minimize its weaknesses, to avoid its unintended dark consequences, we must first be willing and able to understand and manage our own. The future of the world and our ability to improve its collective health is directly tied to our ability to bridge the gap between what technology can do and what we must do to realize its best, most human potential.
If you find my thoughts thought provoking, please let me know by reaching out to me at chris@chriscolbert.com. And stay tuned for the rest of the book, to be published in early 2021. Also check out my other book, This Is It, my personal story of transformation and growth. Thanks for reading!