Waves of Exponential Tech Advancements - 10 More Megatrends

Peter Diamandis July 18, 2021

How do you become an "expert" in exponential tech?

Are you taking the time to analyze exactly HOW entire industries are being revolutionized from the bottom up?

Over the next decade, waves of exponential tech advancements will stack atop one another, eclipsing decades of breakthroughs in scale and impact.

These waves will lead to 20 "Metatrends" that will revolutionize industries and redefine tomorrow's generation of businesses.

Two weeks ago, I discussed the first 10 of these Metatrends. Today, in part 2 of the blog series, I'll discuss the next 10 Metatrends shaping our future: from the transformation of the insurance industry to the rise of cellular agriculture.

Let's dive in...

NOTE: Discussing these Metatrends is a key focus of my year-round entrepreneur coaching program Abundance360.

10 MORE METATRENDS SHAPING OUR FUTURE

(1) The Insurance Industry Transforms from "Recovery After Risk" to "Prevention of Risk": Today, fire insurance pays you after your house burns down. Life insurance pays your next-of-kin after you die. And health insurance (which is really sick insurance) pays only after you get sick. During the next decade, we'll see a new generation of insurance providers that offer you a service to KEEP you healthy and keep your house safe during a wildfire.

This Metatrend is driven by the convergence of the following: machine learning, ubiquitous sensors, low-cost genome sequencing, and robotics to detect risk, prevent disaster, and guarantee safety before any costs are incurred.

(2) Autonomous Vehicles and Flying Cars (eVTOL) Will Redefine Human Travel (Soon to be Far Faster and Cheaper): Fully autonomous vehicles, car-as-a-service fleets, and aerial ridesharing (flying cars) will be fully operational in most major metropolitan cities in the coming decade. The cost of transportation will plummet 3-4X, transforming real estate, finance, insurance, the materials economy, and urban planning. Where you live and work, and how you spend your time, will all be

fundamentally reshaped by this future of human travel. Your kids and elderly parents will never drive. Already, a half dozen eVTOL companies have gone public raising >\$10B to fuel their growth. These vehicles are real and will help define the decade ahead.

This Metatrend is driven by the convergence of the following: machine learning, sensors, materials science, battery storage improvements, and ubiquitous gigabit connections.

(3) On-demand Production and On-demand Delivery Will Birth an "Instant Economy of Things": Urban dwellers will learn to expect "instant fulfillment" of their retail orders as drone and robotic last-mile delivery services carry products from local supply depots directly to your doorstep. Further riding the deployment of regional on-demand digital manufacturing (3D printing farms), individualized products can be obtained within hours—anywhere, anytime.

This Metatrend is driven by the convergence of the following: networks, 3D printing, robotics, and AI.

(4) Ability to Sense and Know Anything, Anytime, Anywhere: We're rapidly approaching the era wherein 100 billion sensors (the Internet of Everything) is monitoring and sensing (imaging, listening, measuring) every facet of our environments, all the time. Global imaging satellites, drones, autonomous car LIDARs, and forward-looking augmented reality (AR) headset cameras are all part of a global sensor matrix, together allowing us to know anything, anytime, anywhere. In this future, it's not "what you know," but rather "the quality of the questions you ask" that will be most important.

This Metatrend is driven by the convergence of the following: terrestrial, atmospheric, and space-based sensors, vast data networks, 5G communication networks, next-gen Wi-Fi, and machine learning.

(5) Disruption of Advertising: As AI becomes increasingly embedded in everyday life, your custom AI will soon understand what you want better than you do. In turn, we will begin to both trust and rely upon our AIs to make most of our buying decisions, turning over shopping to AI-enabled personal assistants. Your AI might make purchases based upon your past desires, current shortages, conversations you've allowed your AI to listen to, or by tracking where your pupils focus on a virtual interface (i.e., what catches your attention). As a result, the advertising industry—which normally competes for your attention (whether at the Superbowl or through search engines)—will have a hard time influencing your AI.

This Metatrend is driven by the convergence of the following: machine learning, sensors, augmented reality, and 5G/networks.

(6) Cellular Agriculture Moves from the Lab into Inner Cities, Providing

High-quality Protein that is Cheaper and Healthier: This next decade will witness the birth of the most ethical, nutritious, and environmentally sustainable protein production system devised by humankind. Stem cell-based "cellular agriculture" will allow the production of beef, chicken and fish anywhere, on-demand, with far higher nutritional content, and a vastly lower environmental footprint than traditional livestock options. To support this area, the XPRIZE has launched a \$15M "Feed the Next Billion" competition focusing on fish and chicken.

This Metatrend is driven by the convergence of the following: biotechnology, materials science, machine learning, and agtech.

(7) High-bandwidth Brain-Computer Interfaces (BCI) Will Come Online for Public Use: Technologist and futurist Ray Kurzweil has predicted that in the mid-2030s, we will begin connecting the human neocortex to the cloud. This next decade will see tremendous progress in that direction, first serving those with spinal cord injuries, whereby patients will regain both sensory capacity and motor control. Yet beyond assisting those with motor function loss, several BCI pioneers are now attempting to supplement their baseline cognitive abilities, a pursuit with the potential to increase their sensorium, memory, and even intelligence. Recent demonstrations of a macaque monkey playing Pong using a Neuralink implant is proof of incredible progress. Add to this the breakthrough work of Dr. Mary Lou Jepsen using red laser light holography to read and write onto brain neurons, and we have the making for an incredible future.

This Metatrend is driven by the convergence of the following: materials science, Al/machine learning, and robotics.

(8) High-resolution VR Will Transform Both Retail and Real Estate Shopping & the Future of Education: High-resolution, lightweight virtual reality headsets will allow individuals at home to shop for everything from clothing to real estate—all from the convenience of their living room. Need a new outfit? Your Al knows your detailed body measurements and can whip up a fashion show featuring your avatar wearing the latest 20 designs on a runway. Want to see how your furniture might look inside a house you're viewing online? No problem! Your Al can populate the property with your virtualized inventory and give you a guided tour. On the education front, the use of VR and Al-driven avatars with technology such as that demonstrated by Dreamscape promises a future of game-like, immersive, and powerful education and training.

This Metatrend is driven by the convergence of the following: VR, machine learning, and high-bandwidth networks.

(9) Increased Focus on Sustainability and the Environment: An increase in global environmental awareness and concern over global warming will drive companies to invest in sustainability—both from a necessity standpoint and for marketing purposes. Breakthroughs in materials science, enabled by AI, will allow companies to drive tremendous reductions in waste and environmental contamination. One company's waste will become another company's profit center. A key example of this area of focus

is the recent launch of the \$100M XPRIZE Carbon Removal that has been funded by Elon Musk. Thousands of prospective teams have hit our XPRIZE website and many hundreds have registered thus far.

This Metatrend is driven by the convergence of the following: materials science, AI, CRISPR, digital biology, and broadband networks.

(10) CRISPR and Gene Therapies Will Minimize Disease: Perhaps one of the most powerful, underappreciated technologies in the world is CRISPR. In 2020, two incredible women won the Nobel Prize in medicine for its discovery, and revenues from CRISPR doubled between 2019 and 2020 to over \$1.5B. A vast range of infectious diseases, from AIDS to Ebola, are now potentially curable, as are a wide range of genetic ailments like sickle cell anemia, thalassemia and certain forms of congenital blindness. In addition, gene-editing technologies continue to advance in precision and ease of use, allowing families to treat and ultimately cure hundreds of inheritable genetic diseases.

This Metatrend is driven by the convergence of the following: various biotechnologies (CRISPR, Gene Therapy), genome sequencing, and Al.

In the decade ahead, master entrepreneurs will look beyond the immediate effects of a given technology to seize second-order, Google-sized business opportunities on the horizon.

As an entrepreneur, you should be asking yourself: What challenges or problems can I solve? How can I leverage the coming waves of tech advancements?

If you would like my coaching on how to take advantage of these Metatrends in your business, then...

JOIN MY ABUNDANCE360 COMMUNITY

If you want my coaching as an exponential entrepreneur and to reinforce those mindsets that will inspire and guide you to create a hopeful, compelling and abundant future for yourself and humanity, then consider joining my year-round Abundance360 coaching program.

Every year, my team and I select a group of 360 entrepreneurs and CEOs to coach over the course of a year-long program. You can join at any time for a full year's worth of personal coaching on Exponential Tech, Longevity, Moonshots, and Abundance thinking.

My mission is to help A360 members obtain mastery in four specific mindsets: an Abundance Mindset, an Exponential Mindset, a Moonshot Mindset, and a Longevity Mindset. Together we will actively select and reinforce your preferred Mindsets.

To learn more and apply to A360, visit abundance 360.com