

Vivek Wadhwa

Futurist, Author, Emerging Technologies Expert

Navigating the Future: From Science Fiction to Reality This decade is poised to be the most amazing in human history. Self-driving cars will soon safely traverse our streets, while drones will not only deliver our morning coffee but also realize the dream of flying cars. The emergence of humanoid robots, similar to Rosie from “The Jetsons,” will revolutionize our daily lives, offering both culinary services and companionship. In the field of bionics, advancements will bring about enhancements reminiscent of “The Six Million Dollar Man.” In the medical field, we are on the brink of a revolution with AI doctors providing 24x7 monitoring and advice, potentially surpassing human doctors. We are moving closer to curing every disease, including cancer, and advances in synthetic biology may allow us to eliminate hereditary diseases and even choose specific traits for our offspring. Furthermore, the fantasy of Star Trek’s holodecks will edge closer to reality, driven by advancements in virtual reality. The era of 3D printing will expand to include household items, cars, houses, and even electronics. Alongside these developments, we will witness a green revolution, an energy revolution, a space revolution, and much more, marking a period of unprecedented innovation and transformation. In this very upbeat talk about what our future holds, Vivek Wadhwa will explain what is making all this possible: the exponential growth of technologies, which consistently double their power, price-performance, capacity, and bandwidth every one to two years, often surprising us with what is possible. We are literally on the brink of an era where amazing advancements become a reality. However, it is important to recognize the potential dark side of these technologies. The very advancements that promise immense good also hold the capacity for harm, potentially leading us to a dystopian future akin to Mad Max. This is because every technology that can be used for good can also be used for evil. The message is that we have important choices to make about the future we want to create. This is the message of Vivek’s best-selling book, *The Driver in the Driverless Car: How Our Technology Choices Will Create the Future*.

Harnessing the Power of AI for Exponential Business Growth The pandemic has taught us the incredible power of exponentials. We have seen how a small development in a far-off place can set off a series of events that quickly disrupts everything about our lives. However, it is not only viruses that advance exponentially. In the coming years, a range of technologies will create the same sort of explosive and transformative changes across industry, society, and government. What is enabling this new revolution is computer technology’s exponentially increasing pace of advancement. Our smartphones now have greater computing power than yesterday’s supercomputers. Every technology that is information-based is advancing on an exponential curve, including, AI, robotics, sensors, synthetic biology, 3D printing, and quantum computing — all becoming smaller, faster, and cheaper. Advancing technologies can be deceptive because at first, because as they advance on a linear scale things move very slowly. Then, when the exponential curve trends upward, we are

caught off guard, and disappointment leads to amazement and fear. This is precisely what is happening with artificial intelligence, which as recently as a decade ago was considered a failed technology — after two “A.I. winters”. Today, new “large language models” (LLMs) that power tools such as ChatGPT have surprised even their creators with their unexpected talents. They are about to make obsolete all of the data-analytics tools that corporations use, from tried and tested decision-support systems to knowledge-based and expert systems. This is because they can effectively analyze billions of times more information than anything before. Their effect will be akin to the introduction of electricity — and everything that has already been electrified can also be “cognified.” Vivek Wadhwa will explain in simple terms what these emerging technologies are, including: What led artificial intelligence (A.I.), the stuff of science fiction, to failure in the ’90s; the new methods of data analysis; and the advent of the GPU that revived it; Separating fact from fiction: the difference between today’s “narrow” or “weak” A.I. and tomorrow’s artificial general intelligence and superintelligence; ChatGPT and the classes of machine-learning strategies — supervised, unsupervised, and reinforcement — and their application in business How A.I. can provide the cheap, reliable, industrial-grade digital smartness to transform decision-making in everything from stock trading, document review, and financial analysis to security, intelligence, fraud detection, and law enforcement; Cutting through the hype: the limits and practicalities of business A.I.; Regulatory and reputational concerns arising from A.I.’s opacity; The big picture and how converging exponential technologies will enable us to solve some of humanity’s greatest challenges, including the cure of disease, increasing food production, poverty alleviation, and education. Attendees will learn of the incredible opportunities we now have to build new billion-dollar businesses in trillion-dollar industries. They will also learn some of the dangers of these technologies. Vivek’s book *From Incremental to Exponential: How Large Companies Can See the Future and Rethink Innovation* will provide valuable follow-up reading for attendees who want to learn the secrets of Silicon Valley: how it has mastered exponential technologies and developed the new innovation methods that enable exponential growth.

Convergence, Disruption, and Opportunity: How Existing Industries Will Be Disrupted and New, Trillion Dollar, Industries Will Emerge Not long ago, you could see your competition coming. Management guru Clayton Christensen coined the term “disruptive innovation” to describe how competition worked: a new entrant attacked a market leader by launching low-end, low-priced products and then relentlessly improving them. Now Christensen’s frameworks have themselves been disrupted — because you can no longer see the competition coming. Technologies are no longer progressing in a predictable linear fashion, but are advancing exponentially and converging. Practically every industry will be disrupted over the next few years, including finance, insurance, health care, manufacturing, transportation, education, I.T. services, and communications. By the early 2030s, all but a very few of today’s Fortune 500 companies will have fallen off that list; they will go the way of Blockbuster, Kodak, RIM, Compaq, and Nokia. This is not all bad news, because disruption creates opportunities. New industries will emerge, and the companies that lead the change will have the trillion-dollar market capitalizations. Vivek Wadhwa will explain how technologies converge and disrupt industries, and the S-curves that they form — which make it very hard to pick specific winners. The message is that business executives need to understand that: Trillion-dollar

opportunities happen at the intersections of exponential technologies. Disruptions are happening in every industry where technology can be applied. Entrepreneurs can now do what only governments and big corporations could do before. If they don't disrupt themselves, they will be disrupted by startups from other industries. Businesses must learn the new rules of the innovation game and transform their employees into intrapreneurs who think—and act—like the Silicon Valley entrepreneurs who are gunning for Goliath. Vivek will explain the basics of exponential technologies and convergence, provides examples of the disruptions that are under way in several industries, discusses the new rules of the innovation game, and challenges his audience members to think like today's technology entrepreneurs—and to build the new billion-dollar businesses within their companies. This talk can cover transformation of manufacturing, energy, insurance, real estate, transportation, health care, retail, technology services, and other industries.