

The Age of Acceleration

By E. Lander Medlin

In the November/December 2016 issue of *Facilities Manager*, I wrote about the “game changers” of technology, space management, and performance metrics and data analytics. At the time I didn’t truly understand the real rate and pace of technological “change” and its dramatic effect on the “game.” So what changed?

In December, I took a break from the day-to-day demands of work and the holiday rush and read a book entitled *Thank You for Being Late: An Optimist’s Guide to Thriving in the Age of Acceleration*, written by Thomas L. Friedman (New York Times columnist, three-time Pulitzer prize winner, and author of numerous books, most notably *The World Is Flat*). Quite simply, I was blown away and immediately realized the world I thought I knew no longer exists!

THE SINGLE GRAIN OF RICE

Technological advancements defined by Moore’s Law are dramatically transforming every aspect of our lives. Then, add the two other largest driving forces on the planet, the globalization of markets and rapid climate change/biodiversity loss. And voila, you have an unprecedented, accelerated, albeit exponential rate and pace of change(s). Although our lives are undergoing drastic change, we are actually living in incredibly interesting times! Yet, few of us have paused long enough to take note, assess, consider, or

even think about this historic moment in time.

Why is Moore’s Law so important? In 1965, Moore’s Law posited the speed and power of computational processing power would double every two years for only slightly more cost with each new generation. It has held that pattern for 50 years. Friedman provides an excellent illustration of this kind of exponential growth recalling this story:

“The famous legend of the king who was so impressed with the man who invented the game of chess that he offered him any reward. The inventor of chess said that all he wanted was enough rice to feed his family. The king said, ‘Of course, it shall be done. How much would you like?’ The man asked the king to simply place a single grain of rice on the first square of a chessboard, then two on the next, then four on the next, with each subsequent square receiving twice as many grains as the previous one. The king agreed without realizing that 63 instances of doubling yields a fantastically big number: something like 18 quintillion grains of rice. That is the power of exponential change...that’s what is happening with technology...AND, Moore’s law just entered the second half of the chessboard!”

ENTER THE AGE OF ACCELERATION

As humans, we perceive and naturally experience change in the world as linear, yet it’s now occurring

exponentially. Further to the point, Qualcomm's motto is "Lives are changed when people connect. Life is changed when everything is connected." That is also happening within Moore's Law. It's not just the computational speed of microchips but every other component of the computer (integrated circuits, memory units, networking systems, software applications, and the sensors), all melding into "the cloud"; all available via your smartphone— your handheld computer! Change so fast it is outstripping the speed human beings, institutions, and societies can normally adapt.

So, if, like me, you didn't see it coming, that is quite understandable. And how could you? The three largest forces on the planet are all accelerating at once, exponentially, and interdependently. But, we haven't seen anything yet! Indeed we are experiencing the feeling of *dislocation* (unlike disruption), which means the whole environment is being altered so quickly that we feel we can't keep up. The cultural angst we feel prevents us from fully benefiting from new technologies, and makes it difficult to consciously manage the very real, unintended consequences on humans who are no longer just part of nature, but now a force *of and on* nature.

Ray Kurzweil, director of engineering at Google, stated,

"We're entering an age of acceleration. The models underlying society at every level, which are largely gauged on a linear model of change, are going to have to be redefined. Because of the explosive power of exponential growth, the 21st century will be equivalent to 20,000 years of progress at today's rate of progress; organizations (and individuals) have to be able to redefine themselves at a faster and faster pace."

As uncomfortable and disconcerting as all this may be, we must adapt—and we can, in a number of ways! In fact, there are many opportunities. What can we learn?

- Opt to pause and reflect to better understand and engage productively. Ralph Waldo Emerson put it best, "In each pause I hear the call." We have to give ourselves permission to slow down. Knowledge is only good if you can reflect on it.
- Our lifelong working capacity requires lifelong learning in order to increase our ability to adapt.
- Use sensor data from the IoT (Internet of Things) to look for patterns before they cause problems, then loop back for preventive and prescriptive action rather than "condition-based maintenance,"

and correspondingly save time, money, and energy, increase productivity, and take out the guess work.

- As for Big Data, use that bigger memory, more intensive computing, with the power, efficiency, reliability, and software innovations to connect in ways to make data searchable and find those proverbial needles in a haystack.
- Use these abilities to generate and apply knowledge for faster, better decisions.
- Rewire organizational tools and institutions to keep pace; adapting even slightly will make a huge difference.
- To navigate this "white water"—Fail fast! Get more agile, optimize for learning, be willing to experiment and learn from mistakes, and continuously reevaluate to create "dynamic stability." We cannot slow it down. As experienced kayakers know, says Friedman, you need to "keep paddling to maintain your stability through rapids...you want to move as fast, or faster than the current, otherwise you lose momentum and that makes you more vulnerable to flipping over."
- Innovate, innovate, innovate! Reimagining, reinventing, redesigning, reshaping, and redefining the workplace, our institutions, and our lives.

A NEW GROWTH MODEL

So, under our noses and over the course of the last 10 years (with the year 2007 considered the inflexion point), we have moved from a service economy to a "knowledge-human" economy focused on human capital—people—their talent, technical skills, tacit know-how, and creativity, and their social skills like cooperation, empathy, and flexibility. Now the growth model is based on the targeted and strategic investment in people.

We need to use these skills and capabilities to connect, collaborate, and create through every aspect of life, within our educational institutions, the marketplace, and through associations like APPA where a creative network of professional connections and collaborations abound. As Marie Curie said, "Nothing in life is to be feared, it is only to be understood." APPA stands ready to help improve your understanding to navigate through these rapidly changing currents. ☎

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