Human ingenuity will be the genesis for IoT prosperity

We need to think big, beyond business bottom lines, to a common purpose

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There is no doubt we are entering a time of exponential change in technological innovation.

Just look around. We are witnessing self-driving cars traversing the streets in California and Texas. Doctors now perform open-heart surgery with robotic arms, in some cases from a remote operating room hundreds of miles from the patient. Robotic exoskeletons are creating a "super labor force" by enhancing the strength of workers, and human capabilities are reaching new heights in factories, warehouses, and construction sites.

Major metropolises are using IoT to improve public safety and services, to respond to complex urban conditions and real-time security risks, and to scale deployment of secure city infrastructure. IoT is also addressing increased demand for agriculture production to feed growing populations, and is mitigating water scarcity and drought with smarter water management and conservation systems.

Finding purpose: beyond technology and the bottom line

Undoubtedly, the business and economic impacts of IoT are enormous, and we are only scratching the surface. While technological progress is also certain to bring significant economic and collective benefits, we must also be mindful of the unknown societal effects that IoT and the digital explosion will have on culture, jobs, and the global workforce.

As business leaders, we must think beyond the fiscal bottom line and technological advances in products and services and ask ourselves, how will IoT affect the communities we operate in and what will our role be in readying society and the

workforce for this digital phenomenon that is rapidly proliferating? Technology itself has no ethics. It is only when people apply purpose and innovative thinking beyond revenue and profit that we will be able to reap collective benefits and security of the digital world.

We explored this topic in depth at the recent IoT World Forum in London, where renowned futurist Gerd Leonhard provided us a stunning window into the ethics of IoT and the critical role of human ingenuity in designing and shepherding its outcomes. (Watch the replay of Gerd's keynote, moderated by Cisco's CMO, Karen Walker: "Beyond Business: A Holistic View of the Societal and Human Impact of IoT.")

As the IoT World Forum team put its agenda together for an influential community of C-suite executives in London, there was a realization that we needed to address this topic, as provocative (and sobering) as it might be. We recognized that we had to acknowledge the "elephant in the room": that we are in unchartered territory, as we enter into this new era of exponential change together. When we think about what the implications are of a rapid surge in IoT innovation, we must all collectively consider the potential effects on the geopolitical and global economic landscape (in both advanced and developing nations); on global challenges such as wealth inequality, aging populations, healthcare, and the environment; and on the global workforce. Of course, no one has all the answers, but we must be bold in exploring these issues as a global business community. I will explore this in more depth in my next blog, but I will say that we know we need a global unified approach to succeed. No one can go it alone, and a "head in the sand" mentality is not an option.

This was also the impetus for the formation of The IoT Talent Consortium. Recognizing that human capital will be the axis on which the Internet of Things realizes its full potential, and acknowledging that no one organization can solve the talent/job disparity problem alone, this nonprofit was born out of a collective purpose to address the human talent demands of a digital economy.

Adopting a new IoT mindset that is human-centric

While there is much concern about the impact of automation, robotics, and globalization on occupations and industries across the board, we must not allow "man-versus-machine" doom and gloom to impede or distract us from the opportunities before us. We must be pragmatic but also remain optimistic and take a "glass half-full' view when it comes to this fourth industrial revolution. Although job tasks will go through continuous change, many new vocations will emerge that will require us to capture the talent and ingenuity that humans embody.

It is time to adopt a new IoT mindset that embraces human capability and ingenuity and to focus on what makes us uniquely human. Instead of lamenting about some jobs that will inevitably become obsolete, let us instead focus on how we bring those who are displaced by technological advances along on this journey with us – using IoT as the means to reskill and upskill for jobs of the future and new opportunities for growth.

Let us capture and accelerate the opportunities that artificial intelligence, sensor networks, and augmented reality will yield – bringing new talent into the fold, helping the existing workforce become more productive, and freeing up valuable capacity to innovate. Most importantly, let us celebrate and nurture our innate gifts and skills, which cannot be impersonated by machines, such as intuition, creativity, empathy, and leadership.

Beyond technological innovations that give way to new everyday conveniences, save us time, and make us more productive, IoT gives us tremendous power to make a huge difference in the world and in people's lives.

Only when we accept the eventualities of technology disruptions, can we start to focus our efforts on building new opportunities – for everyone. The opportunity lies in how we leverage the beauty of technological innovations to enhance human ingenuity and the human experience. We can create a more inclusive digital world by enhancing nontraditional learning, democratizing education, and connecting the world, and, in the process, solve big societal problems. I believe this is our greatest opportunity and responsibility as business leaders.

Human ingenuity is the source for great technological, business, and societal progress

I leave you with three central principles to think about as we move forward together:

1. Ultimately, humans will be the chief architects of our future digital world. No matter how smart machines become, they cannot replicate the inalienable traits that make humans human. We must remember that people come first as we drive business strategies and invest in innovation.
2. We can start by preparing our people to become the leaders, innovators, data scientists, technology evangelists, and social entrepreneurs for this future digital world. My previous blog post, "6 Tips for Building a More Agile, Digital-Savvy Workforce," outlines a few ideas about how to prepare your workforce to compete in the IoT economy.
3. Think big, beyond the fiscal bottom line, to the "triple bottom line." Taking into account the financial, social, and environmental performance and impact of business will make all the difference.

As [Zig Ziglar](#) once said, "You don't build a business. You build people, and the people build the business." Simply replace the word "business" in this quote with the words "city" or "country" or "industry." The same philosophy could be applied to our collective human influence and our capacity to build, innovate, and change the world.

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