

# Science fiction quickly becoming science fact

Futurists discuss where tech is headed and how it will impact security at MIPS 2020

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Many of the technologies that permeate our everyday lives today would have seemed like the figment of someone's wild imagination just over 100 years ago. Consider how far we've already come with technology since the beginning of the 20<sup>th</sup> Century.

In transportation, the horse and buggy has been replaced by automobiles, some of which today are even capable of driving themselves. Aviation beyond a hot air balloon was nowhere in sight. Since the Wright brothers made the first successful airplane flight in 1903, humankind has perfected commercial airline travel and ventured into outer space.

Advances in communications technology over the past 150 years have been even more profound, evolving from the telegraph and the first rudimentary phones to the smartphones we all carry in our pockets today which are infinitely more powerful than the computers NASA used to land the first man on the moon in the 1960s.

The security industry has been disrupted greatly by technology advancements over the past 30 years. The shift from analog to IP-based solutions has obviously been a prime driver as it caused a fundamental shift in how video surveillance is architected. The changes influenced by the IP transition have not stopped there, however; as an increasing number of security sensors and systems continue to make their way onto the network. Video surveillance also continues to be at the leading edge of tech disruption in the industry as the evolution of machine learning and deep learning technologies have given rise to a new generation of intelligent analytics.

In a keynote presentation this week at MIPS 2020 in Dallas, futurist Gerd Leonhard, author of the book "Technology vs. Humanity" and CEO of the Future Agency, said that businesses, including those in security, have to be ready to pivot depending on the disruption affecting their industry or they risk being left behind by those that are able to see where the market is headed. For example, Leonhard, who was a musician and producer during the late 90s, said that many realized that the music industry would soon be moving to the cloud but that most of the traditional record labels refused to accept this reality.

"One thing that I've promoted is that the future is not an extension of the present," Leonhard told attendees. "In 1999, we sat down with corporate record labels... and we said music is moving to the cloud. This was obvious but they said, 'no, no we don't want music in the cloud because it will be cheap. What do we have today? Where is the new music business? It's not at Sony, Universal or EMI, it is Spotify, YouTube and wherever else.'"

According to Leonhard, we're currently living through the "biggest technological transformation in human history," and that organizations must take good care of the present – where their money is coming from currently – while simultaneously planning for the future. Among the trends that Leonhard believes will impact the security industry and others over the next several years include; digitization; cognification; datafication; virtualization; augmentation; automation; platformization; and, robotization.

With cognification, for example, Leonhard said it's clear that computers are no longer stupid and that the development of machine learning and deep learning algorithms means that they can learn and become smarter. When it comes to video surveillance, these technologies are being used for more advanced people and object detection analytics.

"This is why I say business as usual is dead or dying, no matter how successful you are," Leonhard said.

One of the biggest challenges that humanity will face moving forward, according to Leonhard, is digital ethics and avoiding use cases for technology that could not only have serious financial consequences for businesses but existential impacts for mankind.

"Technology is morally neutral in how it's used. You can use a hammer to kill somebody or build a house. Can you use video surveillance to do bad things? Absolutely," he said. "Data is the new oil, but it can also be the new plutonium." Despite these moral challenges and the fact that some people will undoubtedly lose their jobs due to automation and robotization, Leonhard remains optimistic about the future. "We're going into a world that is mind-bogglingly different, but we shouldn't fear it," he said. "We should be careful, not stupid."

Swedish-Australian futurist Anders Sorman-Nilsson, author of the books "Seamless: a hero's journey of digital disruption, adaptation and human transformation and "Digilogue: how to win the digital minds and analogue hearts of tomorrow's customers," who also spoke during MIPS, echoed Leonhard's cautions about how technology should be used as well as the disruptive impact that it has having on organizations today.

"Every business model today is getting digitally disrupted, digitally hacked," Sorman-Nilsson said. "The battle lines have shifted, and the question is are we, in our line of business, getting the credit that we deserve?"

Of course, many of these advancements are already paying dividends when it comes to security and safety applications. Sorman-Nilsson pointed to the truck used by a terrorist to plow into a Christmas market in Berlin in 2016 which featured an automatic braking system that prevented it from inflicting further casualties. Though 12 were killed and more than 50 others were injured in the attack, those figures pale in comparison to a similar attack carried out just months before in Nice, France, that left 86 people dead and more than 450 others wounded."

"Courtesy of technologies like yours, our future might, in fact, become more ethical," he added. "We can code for humanity. We can make choices that actually reduce human error and return more humane and human outcomes."

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