

Exponential change and technology: What are the risks to your business?

We are currently on the brink of exponential changes driven by technology. Adopting these new technologies may fundamentally disrupt the way we work, live and relate to one another. Given the acceleration of innovation and the speed of disruption, it may be hard to anticipate the risks of tomorrow.



Technology is fundamentally altering the way business operates

Construction Wearables	Manufacturing Industrial Internet of Things	Healthcare Telemedicine
<p>Wearable technology is being devised for many workplace concerns in the construction industry.</p> <p>Envision a construction worker outfitted with inertial measurement units (IMU's) that are hooked up to an activity tracking body area network (AT-BAN). This non-evasive technology is trackable to a smart device and found in their common gear, providing for a proactive safety environment.</p> <p>Hard hats can be enhanced with 360-degree views of a worker's surrounding. Safety vests can include sensors that communicate posture, movement and biometric measurements that transmit details for velocity of movement, amount of exertion, heart rate and body temperature.</p> <p>The worker can wear location sensors and actuators that output audible signals of danger and wrong joint angles.</p> <p>Power tools that have lightweight power packs that can sense fatigue in a worker's hand.</p> <p>These advances in wearable technology bring new opportunities, but also new risks.</p>	<p>Picture a factory floor with all of its equipment and reporting systems connected – providing leaders with production data on their purchasing, inventory, and order fulfillment processes more strategically and efficiently.</p> <p>Approximately 25% of global manufacturers are already using IoT technology. This is expected to grow to 80% by 2025, changing how plants, supply chain partners, product and demand management all interact.</p> <p>The use of sensors, actuators and data communication technology built into the manufacturing process – coupled with advancements in materials, printing and robotics – will change the characteristics of the product and the production process. Today, the majority of manufacturing plants manually upload production data into various reporting systems.</p> <p>Intelligently connecting people, processes, data and things via devices and sensors, will strategically change production activity, inventory management, forecasting and order fulfillment processes. With that comes risk.</p>	<p>Picture a neurologist consulting on a stroke victim's case via video conferencing and providing an instant assessment that both saves a life and reduces any long-term complications. Imagine a post-op surgical patient having a virtual "house call" with her surgeon, or a psychologist offering access to a virtual world, where patients can act out various responses to a problem.</p> <p>Telemedicine, or telehealth, expands the reach of medical care by providing real-time clinical services from a distance through electronic communications. Its global market is expected to be more than \$34 billion by the end of 2020. This innovative growth is driven by cost efficiencies, broader networks of specialists, second and third opinions, and faster diagnoses, combined with a shortage of specialists, higher demands from the aging population and added pressure for affordable care.</p> <p>Telemedicine offers advantages and efficiencies, as well as disruptive risk exposures that might not be apparent.</p>

With new technologies come risks that can manifest themselves in surprising ways.

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 <p>PEOPLE RISK</p> <p>What happens if your employees ignore the information that they are overexposed to UV rays or exceeding lifting thresholds or have reached an exhaustive level? Could the result by itself be a compensable injury? Can they use someone else's device to file a compensable injury? Can these technologies make your business less safe?</p>	 <p>SUPPLY CHAIN RISK</p> <p>Typically the supply chain ends when a product is delivered, but the flow of data continues to create value. Will this shift your model from a product based model to an outcome-based service, competing on measurable results? How will the flow of data impact your supply chain? Will increased efficiency cause more or less supply chain risk?</p>	 <p>CYBER SECURITY RISK</p> <p>Can your current IT system transmit and receive data appropriately and securely? Who owns the data that is shared – the doctor or the patient? And how is that data or telecast documented, retained or destroyed as regulated?</p>

Business leaders must understand the risks posed by emerging technologies and learn how to protect their enterprise for the best outcome.

Technological advancements are fundamentally altering the way businesses operate and the risks they face. From robotics and 3D printing to telemedicine and the Internet of Things, business and customer demands will transform rapidly. These technologies can bring a range of hidden challenges, including regulatory and workforce changes, cyber security concerns and supply chain disruptions.

Companies that understand the risk disruptive technology brings will succeed.

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1 Payne, Adam. "Manufacturing and The Internet of Things | IOT University." IOT University. N.p., 02 Mar. 2016. Web. 11 Apr. 2016.
2 "Global Telemedicine Market – Growth, Trends, Forecasts (2015-2020)", Mordor Intelligence.

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