Cognizant

Fast, But Not Furious:

The Speed You Need To Win in the Fourth Industrial Revolution

Who will win in the digital economy? It will come down to survival of the fastest. Here's how traditional businesses can accelerate in a world where time-to-everything matters more than any other strategic imperative.

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Center For The Future of Work In the modern economy, it's speed that will determine whether you disrupt or are disrupted. In this report, we describe a framework to help leaders adjust to the velocity of changes taking place today.

Executive Summary

The pace of business change has intensified dramatically as the fruits of digital technologies expand beyond Silicon Valley to the entire economy in the Fourth Industrial Revolution.¹ At the heart of this new digital world order is the unstoppable rise of automation, analytics and artificial intelligence (what we call the new machine), and with that comes unprecedented levels of speed – speed of doing business, generating value, making decisions, meeting customer expectations and getting products and services to market.

In short, it is speed that determines whether you disrupt or are disrupted. According to Forrester Research, over half of consumers will abandon their online purchases if they can't find quick answers to their questions.² Great businesses built over decades and even centuries will be for naught if they cannot operate quickly enough.

The tension between the fast pace of change and the optimal rate for established businesses to respond and adapt is growing as the leadership, legacy systems, business strategies, supply chains, organizational structures, skills and cultures of many of these established companies are simply not equipped to cope with the speed of change.

Traditional companies, however, are in an excellent position to capitalize on the Fourth Industrial Revolution. They understand their markets, products and associated regulations better than anyone. They also have all the right assets to gain proprietary insights into their operations and markets. Where business leaders often struggle is in setting the right pace for their digital journey: fast enough to build the business of the future, but not so furious that they lose control.

This is the mission behind this report: to help leaders adjust the speed of their response to the velocity of the changes taking place. This paper is an extension of our primary research, featured in our report series The Work Ahead, and our latest book, *What To Do When Machines Do Everything*.

In this report, we describe a framework by which traditional businesses can assess their current speed of change and accelerate toward the right speed in a world where time-to-everything matters more than any other strategic imperative.

THE SPEED MANDATE

Digital disruption has something in common with Ernest Hemingway's description of bankruptcy: It occurs "gradually, then suddenly."³ Market changes that once took decades now transpire in weeks and months. New digital consumers seem to be born, literally, every minute. According to our Work Ahead research, the revenue derived from digital channels is also set to explode; by 2018, digital will account for more than 11% of all revenue on average for the businesses we surveyed, up from 4.6% in late 2015. This represents, if not exponential growth, a notable hastening of the shift to digital.

As Salesforce.com CEO Marc Benioff rightly said, "Speed is the new currency of business. If you're not going fast enough, someone else is."⁴ In an age when a start-up can reshape an entire industry overnight, businesses must be on their A-game. For instance, Alipay, the world's biggest payment company, had hit \$100 billion in transactions in less than a year with zero branches, while DBS Bank in Singapore took 50 years to reach the same milestone.⁵ It's not a coincidence that many shareholders' reports of S&P 500 companies are littered with "speed," "fast" and their synonyms today.

Business leaders are already under tremendous pressure from inside and outside their organization to meet fomenting customer and market expectations. In addition, massive data volumes and the pressure to derive insights from it are creating a digital overload for many companies at a time when they need to accelerate the speed of decision-making in their organizations. In our Work Ahead survey of 500 IT managers, the number one issue reported was that their businesses were too slow to effectively capitalize digital.

Very simply, if your organization wishes to meet the speed of market and technological change, it has to automate significant portions of its operations during the next few years. Our Work Ahead research shows that organizations that fail to act swiftly in leveraging digital will pay an average of \$692 million in penalties – the difference in both cost and revenue performance due to technology – by the end of 2018. Moreover, digital leaders hold a 139% advantage over stragglers in cost savings and revenue growth. If you think it will be another 10 years before digital technologies such as automation, algorithms and Al need to be taken seriously, you've already lost.

Business leaders need to ask themselves some hard questions: "What does the speed imperative mean to our industry and business?" "How much is the penalty we are already paying by being slow?" "What are the needed changes in business processes, operations, people and business models we must make to respond fast enough to market changes, new developments and technology change?" Answers to these questions will set the speed context for the organization.

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MOVING AHEAD WITH SPEED

In *What To Do When Machines Do Everything*, we provided a structured approach for moving forward with digital, based on our work with Global 2000 companies at the vanguard of the digital transition. The AHEAD model (detailed below) summarizes five areas in which businesses can take action to effectively compete in the new machine age:

- Automation
- I Code Halos
- I Workforce enhancement
- I A business model based on abundance
- I Discovery

The speed of change that leaders set for the AHEAD model will determine how fast or slow they grow their business in the years to come.

But there's a catch: Not every company can move at the same pace because each firm has its own ambitions and priorities in the new machine age. What might be a good compromise for one may be unfeasible or even unacceptable to another.

Further, trying to do too much too fast is often a recipe for disaster. Businesses need ambitious goals, but overblown promises and expectations will only lead to disappointment. Scattershot initiatives or overly general bromides to "Just do Al," "Just do big data," "Just do every new shiny technology" invariably backfire because those left to carry out the order don't know the difference between "fast" and "far." According to a new study, 84% of digital transformation projects fail to meet expectations.⁶ Companies should know when they are overreaching.

Meanwhile, attempting to imitate one of the digital masters or unicorns is more often than not a misguided and even dangerous strategy. The chances are good that endeavoring to become "the Amazon of our space" will destroy more business value than it creates. Traditional companies have a base of existing processes, products and culture with roots in the industrial era. Perhaps more pertinently, their end goal is different. Organizations that pursue these "fake futures" are being furious and not fast in their transformation journey. (For more on this idea, see **our blog** post on this topic.)

The AHEAD model

Here's a closer look at all five approaches in the AHEAD model, in the context of speed:

Speed to automation: Software bots are critical for matching the speed of change in the marketplace. The next level of automation for human-based processes (or process workarounds) will put organizations on a high growth path. If you've spent most of your career around ERP and Six Sigma, you'll know that 3% to 5% efficiency gains were once considered big. It's a different ballgame now. According to our Work Ahead research, applying robotic process automation (RPA) to long-standing core business processes can drive 30% to 60% (or even more) of costs out of a business's operations, with error rates plummeting to near zero.

Companies such as Blue Prism are applying bots to risk, fraud, claims processing and loan management in banking to realize enormous productivity gains from automation.⁷ Rio Tinto, a large mining company in Australia, is leveraging automation to improve productivity in its core mining operations. It has already experienced a 15% reduction in the cost of operating its automated trucks, and has committed to generating USD \$5 billion of additional free cash flow over the next five years, and automation will play a key role in achieving this goal. It is also trying to enhance worker safety and upskill its workforce as automation takes over a majority of its repetitive mining tasks.⁸

Businesses should set a target to double the speed of their core processes to double their cost savings and time-to-market improvements.

Speed to monetize halos of information. In our earlier book on Code Halos, we described how every person, place or thing is now a code generator⁹ and that winning with data is the number-one competitive game in nearly every industry. Companies that use advanced analytics and machine learning are twice as likely to be top-quartile financial performers, and three times more likely to execute effective decisions.¹⁰ For instance, Under Armour, the athletic apparel company, is aiming to double in size by 2020, fueled by instrumented shoes and clothing.¹¹

Businesses should start thinking about instrumenting all of their key products and machines and using the resulting insights to significantly accelerate the speed of decision-making and create new business value. Companies that fail to embrace this strategy are destined to come face-to-face with their own extinction event. Set yourself a target of becoming a "know-it-all" business. (For more on this topic, read our latest book, What To Do When Machines Do Everything).

Speed to enhance the workforce. At the heart of enhancement is the simple idea that the new machine can improve – not replace, as popular headlines proclaim – the productivity and effective-ness of nearly every person and job. Businesses need to find the balance between the work of humans and robots. JP Morgan is just one example of a traditional company leveraging machine learning and automation to free up people to work on higher-value activities.¹²

Our book confirms that roughly 75% of existing jobs will be altered or enhanced by Al-driven technologies, resulting in a more productive workforce and higher business performance thresholds. For a banker, this might mean being able to see the financial Code Halo of a customer and knowing instantly what he or she needs next.

Businesses should set a target to enhance every person in the organization to speed up the company's performance, as well as help workers focus on the more human elements of the job (strategic thinking, leadership, decision-making, innovation, among others) to double their output or greatly increase their quality of delivery. The Al-driven machine must become workers' new "colleague."

Speed to abundance. Simply put, as prices decline, demand typically rises; once a mass market is created, customers become bought into the need for the product and/or service. This, in essence, is the definition of abundance. Businesses can create markets of abundance by leveraging Al, analytics and automation to drive down the price point of products or services to compete and win in low-cost, high-vol-ume markets. A good example is the success of Reliance Jio, a new telecom company in India, which aims to provide data services for as little as the cost of a postcard. The business reached 100 million subscribers in just 170 days, or roughly seven users per second per day, forcing the competition to lower their prices.¹³

Another way businesses can create a market of abundance is by leveraging start-ups within or outside their industry, whether through acquisition or partnership. The key is to get these innovators into the business's ecosystem to increase the speed of new opportunity creation and drive sales up to unprecedented levels.



Speed to discovery. By leveraging the new machine, businesses can conceive of entirely new products, new services and new industries for the digital economy.

Companies that are trying to establish their digital strategy for triggering innovation must rip up the rule book. For instance, A3, the innovation outpost of Airbus, recently embarked on development of an on-demand service for urban helicopter transport, usable via a mobile app. This would connect passengers and operators, making helicopters more accessible and affordable.¹⁴ In another example, Tesla cars use "over the air" software updates, eliminating the need for owners to bring their cars to the dealer.¹⁵

THE AHEAD SPEED FRAMEWORK

While the AHEAD model illuminates a path forward for achieving digital success, the speed framework will help organizations set the right pace. By assessing their own characteristics with the ones detailed in our speed framework (starting on page 13), businesses can determine where they are in the digital journey and what they need to do to progress to the next level.

The ultimate objective of this framework is to help organizations match the speed of disruption in the marketplace. Although the ideal scenario is to accelerate speed across all five categories in parallel, that is not possible for most traditional organizations. We suggest organizations strive to be in the fast lane on one or two of the AHEAD categories to begin with, and then aim for medium speed in the others. Once they've picked up speed, it will be clear which AHEAD category should shift into the fifth gear.

Moving forward with the AHEAD model is a journey, and there is nothing wrong with taking time early on to prepare to speed up later. The speed at which a business can successfully move depends on its starting state: how change-ready it is and its speed tolerance. The goal should be to move to the next level of speed to accelerate the pace of doing business. Let's look at each of the speed lanes in-depth.

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Being slow = being last

The business-as-usual approach no longer works. Organizations that wait for digital technologies to prove themselves or adopt a wait-and-see approach to the new machine will lag behind. Many of the C-level executives we spoke with told us their organizations struggle with budgets, time, culture, business need and market forces. Their decision-making is individually driven, and management doesn't view technology as a competitive differentiator. Furthermore, their desire to reproduce what has been successful for decades nearly always triumphs over trying something new.

The consequences of a laggard mentality are clearly visible in industries where sluggish responses to the digital revolution have paved the way for more progressive competitors. While retailers spent millions of dollars setting up physical stores, for example, some assumed that only a tiny budget would be needed for their mobile apps. In fact, a new study from Cisco confirms that many retailers have been too slow to invest in the areas that create competitive differentiation and new revenue streams, putting them at risk of being out-performed by faster moving, more innovative retail ventures.¹⁶ Reducing short-term risk can drive the enterprise into an uncompetitive death spiral – truly a fallacious risk calculation.

Traditional businesses can learn from companies that are currently undergoing a transformation; GE, the only surviving member of the original Dow Jones Index of 1896, is in the midst of reinventing itself to become a dominant digital player.¹⁷

Medium-speed organizations have not yet leveraged automation, AI and big data across various functional areas fully.

To move past the "slow" rate of change, businesses need to define their AHEAD strategy first and break it into tasks that can be accomplished quickly, and repeat as necessary. If the board is still not convinced of the importance of AHEAD framework, it's time to instill a structural change because a go-slow approach will only get more expensive and extend competitive shortcomings over time.

Just getting warmed up

Many companies have made significant investments in digital and have viable plans; however, if their execution is not fast enough, they will see only moderate success. Common roadblocks for these organizations are a corporate culture that hinges on a strict hierarchy, impeding innovation, and an inability to effectively manage burgeoning data volumes, slowing decision-making. Data is an enabler for medium-speed organizations, but many have yet to monetize it.

Traditional businesses can learn from companies that are gradually moving into the fast lane. An example of a company that has made data a competitive differentiator is 93-year-old Telefónica, a Spanish telecom giant. The company is changing its business DNA to create an all-digital, data-driven identity. It overhauled its core business processes and systems globally, with the goal of moving to a real-time business model capable of reacting to rapidly changing business circumstances.¹⁸

ANZ Bank is leveraging AI for back-office automation to reduce time-to-market for the approval of unsecured and personal loans. According to the bank's CTO, 1,000 hours of back-office activity have been eliminated due to the increased automation.¹⁹

Medium-speed organizations have not yet leveraged automation, AI and big data across various functional areas fully. They must keep in mind that the goal of automation, machine learning or deep learning is not to replace employees, but rather to automate and speed up repetitive or low-priority tasks and therefore enrich the work of humans. Such AI – often referred to as "narrow AI" – is purpose-built and business-focused on a specific task (e.g., driving a car, reviewing an X-ray or tracking financial trades for fraud) within the context of a product, service or business process.

The implications for business performance are almost stratospheric in proportion, and business strategies and investments should reflect this. While we see many banks experimenting with chatbots and robotic advisory services in the areas of fraud detection and trading, among others, it's time to move beyond the lab. Process by process, throughout the entire value chain, businesses should identify ways of applying the new machine to change how work is done. In short, Al is set to radically refashion businesses' operating models. Businesses that are not acting on automation, big data and Al today will be playing catch-up, which rarely accelerates speed results.

Fast means first

Winning companies are frontrunners in adopting the new machine for both front-office and back-end processes. Al, automation and big data are becoming integral to their business in the conception of new products, new services and new ideas. They are leveraging the AHEAD framework to transform their business model from the bottom up and are on the way to rapid revenue growth.

For Adidas, the speed imperative revolves around "significantly improving time-to-market and keeping pace with customers." To meet this objective, the sports equipment and apparel giant is completely reshaping its business model, from range planning to product creation, sourcing, supply chain, go-to-market, and sales. Its goal is to derive 50% of its sales from the re-shaped business by 2020.²⁰

Organizations in the fast lane have no fear of failure, as they know that no business can invent without making mistakes. Starbucks is a good example of a company that is unafraid to try out new products and quickly move on to other initiatives if they don't realize market success.²¹

Digital leaders keep up with established rivals, reinvent their offerings at a faster pace, get the most out of new assets and ideas, prioritize new technologies and don't let still-forming regulations hold them back. Fast-changing firms see market threats as opportunities; instead of competing with digital startups, leaders consider acquiring or collaborating with them.

As an example, BBVA, Spain's biggest bank by assets, was one of the earliest to jump into the fintech arena, deciding early to recast its identity as not a bank but a financial services software provider. In 2016, BBVA launched an API marketplace that allows start-ups to build apps that interface with BBVA's back-end systems. The approach helped promote innovation and enabled BBVA to retain a leadership position within the ecosystem.

As a result of its aggressive strategy, the company is witnessing a significant increase in revenue from various digital channels, with 19.2% of all consumer loans coming through digital channels last year.²²

The AHEAD Speed Framework							
	SLOW	MEDIUM	FAST				
AUTOMATION	 No automation strategy or done on an ad-hoc basis. Lack of leadership support; insufficient resources. Inadequate standardization of processes. Automation generates < 5% savings. No process documentation or standards. No process for selecting automation targets. Struggling with IT architecture changes or integration with underlying systems. 	 Automation strategy in place, but challenges remain over execution (prototype, pilot and scale). Leadership support exists, but lack of vision on resources. Processes are not optimized for automation. Automation generates between 5% and 20% savings. Process documentation is done on a project-by-project basis. Processes identified for automation based on degree of business impact. IT infrastructure is tactically updated rather than strategically reviewed. 	 Assertive automation strategy in place (start small, buy tools, develop prototype, pilot and scale). Leaders are the catalyst for automation; well-defined budgets with sufficient resources in place. Processes are more rapidly optimized for automation. Automation generates between 21% and 50% savings with a target of 70% to 80%. Well-defined process documentation and standards in place. Processes identified based on the human-machine work continuum (tasks are highly repetitive, generate huge volumes of data, require low levels of empathy and little human judgment). IT infrastructure strategy is focused on innovation, digitization, engagement and value creation rather than cost. 				
HALOS	 Growth of data volume/ variety outpaces the capabilities of systems/tools; data overload is a key challenge. Management follows a process-driven culture. Decision making is somewhat hierarchical. Lacks a cohesive customer experience strategy. Waits for regulations on protecting consumer data. Production-oriented: new products, more features, more content. IT focused on reducing cost of data storage. 	 Purchases more on-premise storage capacity, but struggles to manage and analyze data from various sources. Management views data as a key competitive differentiator but does not yet fully execute vision. Faces difficulty convincing leaders to back data-driven decision making. Improves data management capabilities to enhance customer experience. Data ethics and privacy initiatives adopted on an as-needed basis. Somewhere between a follower and a leader in pursuing new technologies for data monetization. IT drives data effectiveness and improves cross- organization business processes. 	 Extensively leverages public cloud solutions for data storage and analysis. Exercises "harnessing value from data" as a core competitive differentiator. Has a corporate culture that trusts deeply in data; highly effective at translating new data sources or types of data into key business decisions. Uses data to redesign customer experience and back-office processes (HR, SCM, fleet management, etc.). Develops self-regulations for ethics, privacy and security to protect the brand. Industry leader in leveraging Al and machine learning for data monetization; creates new business models and revenue streams based on data. IT enables customer retention and future revenue growth based on data. 				

Figure1 (Continued on next page)

	SLOW	MEDIUM	FAST
ENHANCEMENT	 Believes that new tools will achieve enhancement, with no change in workforce; unsure about the impact of the new machine on people. Uses machines to automate jobs. Leadership is focused on identifying the roles, processes, systems and experiences that can be automated. Workforce is more worried about its future because of automation. Little change in customer satisfaction levels. Expects people to self-learn to self-develop. IT is occasionally brought in to help other teams develop customer-facing services. 	 Believes that new tools plus some reduction in workforce = enhancement. Uses machines to automate repetitive tasks. Leadership is considering opportunities to improve productivity, efficiency and job satisfaction but is slow to execute. Leadership struggles to defuse fear of bots among workforce. A slight improvement in customer satisfaction and revenue. A basic roadmap in place to enhance people's skillset. IT plays a critical role in optimizing experiences throughout the customer lifecycle. 	 Believes that people plus new tools = enhancement. Uses machines to automate repetitive tasks to improve efficiency, productivity and jobs. Leadership is focused on identifying the roles, processes, systems and experiences that can be upgraded by newly available technologies and to envision new approaches and constructs. A more flexible workforce that is energetic, enthusiastic, curious and optimistic; sees uncertainty as an opportunity. Significant improvement in customer satisfaction and revenue. Runs company-wide programs to help people increase human- centric skills. IT is focused on creating new sources of value for external customers through the adoption of emerging technologies.
ABUNDANCE	 Leadership doesn't believe in passing savings to customers by reducing prices of products and services. Not worried if a startup begins to sell a similar product/service at one-tenth the cost. Struggles to use data as a raw material to lower costs significantly. Business is run using a moderate-cost, moderate-volume approach. Doesn't have the right people, with the right skills, to operate in low-cost markets. Personalization of products and services is done in "one-to-many" connections. IT is mostly measured on cost reduction of IT spend and system uptime. 	 Leadership is reluctant to create entirely new thresholds of price and quality for customers. Makes changes within the organization to tackle new start-ups head-on. Uses data as a raw material to lower costs but not to the desired levels. Business is run using a lower-cost, moderate-volume approach. Hires talent from outside to operate in low-cost markets. Personalization of products and services is done in "one-to-many" and in some cases "one-to-one" connections. IT is measured on the use of goals "aligned" with strategic business targets. 	 Leadership is willing to create entirely new thresholds of price and quality for customers as core processes become instrumented and digitized. Obsessed with the start-up community. Funds external start-ups to pursue abundance- based models. Data is bundled in a new commercial model to lower costs dramatically. Business is run using a lower-cost, high-volume approach. Has a team focused exclusively on new emerging companies. Personalization of products and services is done in "one-to-one" connections. IT is measured on cost reduction of products and services and speed- to-market.

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DISCOVERY• Innovation is "nice-to-have," and the spend is buried deep in annual reports.• It is always a challenge to balance investment and the nurturing of new ideas with running the business.• Innovation is central to remaining relevant; strong emphasis on innovation in annual reports.	SLOW	MEDIUM	FAST
 innovation. Management is very conservative in taking risks and has a low tolerance of failure. Business diversification is not a priority. Employees are reluctant to pursue new initiatives. Business and digital strategies are pursued separately and refreshed once a year or as-needed. Continues to struggle with cyber security-related threats. Always flounders when devising budgets for innovation. Most innovation happens outside of IT. IT supports innovation heforts only when requested. Most innovation happens outside of IT. IT supports innovation efforts only when requested. IT plays a critical support of in helying buisness units. IT plays a critical support of innovation is championed by business units. IT supports innovation is championed by business units. 	 and the spend is buried deep in annual reports. Cloud services, open APIs, platforms, AI and crowdsourcing are not leveraged as a means of innovation. Management is very conservative in taking risks and has a low tolerance of failure. Business diversification is not a priority. Employees are reluctant to pursue new initiatives. Business and digital strategies are pursued separately and refreshed once a year or as-needed. Continues to struggle with cyber security-related threats. Always flounders when devising budgets for innovation. Application development and delivery takes months and years. Most innovation happens outside of IT. IT supports innovation efforts only when 	 balance investment and the nurturing of new ideas with running the business. Cloud services, open APIs, platforms, AI and crowdsourcing are leveraged on an ad-hoc basis. Management is willing to take financial risks, as long as the new technologies are tested and certified; reluctant to change. Business diversification is a long-term priority; grows business at an industry average. Employees are encouraged to come up with new ideas, but most of the time nothing happens. Digital and business strategies are integrated and refreshed once a year or every six months. Cyber-security is mostly a reactive investment. Innovation budget is part of the IT budget and spent on an as-needed basis. Application delivery takes roughly four to six months. IT plays a critical support role in helping business units innovate with technology; innovation is championed by 	 remaining relevant; strong emphasis on innovation in annual reports. Cloud, big data, API-driven architecture, AI and platforms are at the core of innovation. Management embraces the culture of risk-taking and tolerates failure when experimenting with new technologies. Business has diversification at its core, with the aim of doubling revenues in the next five years. Employees are asked to build products/services that could cannibalize the business model. Business and digital strategies are pursued as one and regularly discussed and updated. Leverages AI and big data as the new face of cyber- security. Funnels the savings from automation into the testing of new ideas. Application delivery is done in weeks to reduce time-to- market. IT is a champion of business innovation, working alongside product and business unit teams to rapidly test, deploy and scale

Figure 1 (Continued from previous page)

FIVE 'SPEED' RECOMMENDATIONS

The rise of the new machine is a pivotal moment in history that will likely follow the time-honored pattern of technology adoption described by Bill Gates: "We always overestimate the change that will occur in the next two years and underestimate the change that will occur in the next 10."²³ Both the biggest threat and the biggest opportunity for companies will be to keep up with the pace of change. In the end, it will come down to survival of the fastest. Businesses should set a target for the next 12 months to match their decision-making speed to that of anticipated growth in data volumes.

Here are five actions businesses can take to accelerate their rate of change.

Improve collaboration to speed communication and decision-making. Many leaders still perceive digital initiatives linearly: manufacture solutions and hand them off to different teams. But in reality, digital is inherently collaborative and is about equalizing power structures through the democratization of information. Collaboration is not about platforms or technology; it is really about engaging people in a shared journey that can transform the business from the bottom up and break down internal silos. Collaborative organizations are quick to turn ideas into reality and are well placed to respond to changes in the marketplace.

Embrace an asset-light business model. Elon Musk's tagline for SpaceX is "Enabling people to live on other planets." SpaceX hasn't enabled anyone to live in space yet, but its transformation-ready organizational structure and leadership purview say, in effect, "We aren't there yet, and we don't know exactly what it's going to look like, but we promise to get there."

This is the attitude businesses need to take in committing to moving toward an asset-light business model to enable rapid business growth. This starts with asking which part of the business can be transformed from a "we own" to a "we control" mindset using digital. Businesses must own (and not control) customer satisfaction and the partner landscape and be able to capitalize on digital core capabilities to achieve a nearly unbeatable level of agility and scalability, such as entering new markets in a matter of weeks, or discontinuing services based on shifting market demands at very little cost. This will enable them to move faster than the competition.

To make this happen, organizations need to make a fundamental culture shift to encourage modes of working that combine creativity, metrics and quick responses to rapidly changing requirements. IT infrastructure also needs to become adaptive. Everything the IT team could possibly create or maintain should be done better, faster and more securely with off-the-shelf tools (Slack, Trello, Dropbox, to name few). Cloud is the new frontier for speed to consolidate and integrate fragmented computing resources and prepare for the future. It's all about rebalancing the business's portfolio of assets.

Speed data to speed intelligence. Before data becomes an asset, it is a liability. Today, many leaders are (rightly) concerned about their ability to quickly apply data to decision-making. Too much data and not enough insight is creating a digital overload for many companies. Moreover, looking after an AI machine is like keeping a hungry monster fed; incredible volumes of data are needed to provide the necessary capacity for learning algorithms so the machine can make strategic decisions (where to open a branch office, for example, or whether to approve a loan). Businesses can't jump the AI gun until they have addressed their data volumes and quality issues.

To stay ahead of the curve, businesses should set a target for the next 12 months to match their decisionmaking speed to that of anticipated growth in data volumes. For instance, if you expect a 30% annual growth in data over the next 12 months, then the organization's speed of making insights and applying data intelligence needs to accelerate by 30% during the same period. Anything less is going to impact the speed of doing business in this fast-changing world.

Make cyber-security a new competitive differentiator. The recent ransomware attack WannaCry demonstrated that cybersecurity threats have surpassed organizations' capacity to guard against them. The shocking reality is that 49% of businesses fell victim to cyber-based ransom attacks in 2016, and the costs of redressing cybercrime damage are set to hit a jaw-dropping \$6 trillion per annum by 2021.^{24 25} What's worse, recent research shows organizations take an average 146 days to fix critical vulnerabilities.

Obviously, this shows that many organizations' computational infrastructures are woefully inadequate, which will slow their speed of transformation. It's an uphill battle for organizations to keep their brand and consumer trust intact. With so much at stake, companies can't afford to take their foot off the pedal in matters of security. It is essential for cyber-security to move beyond a watercooler topic to a key agenda point for boardroom discussions so that concrete decisions can be made.

Make IT your "speed heroes." If anyone can best understand the need for speed, it's IT: They are the ones with a clear understanding of the machine running the business, and the opportunities and challenges to be faced when shifting to a higher gear. This is a once-in-a-lifetime opportunity for "speed heroes" to step forward and lead their organizations to new levels of financial performance in the great digital build-out to come. IT leaders who reinvent their toolbox, upgrade their contribution to the business, tear down the wall between IT and business, and do not wait for someone to tell them what to do, will create the history for themselves and their organization in the Fourth Industrial Revolution.

There are IT teams already moving ahead. AXA, for example, is trying to address its lackluster IT infrastructure with a new project management technique called Fast IT, wherein AXA's technology team responds to business requirements with incremental and frequent changes as fast as every two to three hours. The group aims to deliver 50% of its IT services via Fast IT by 2020.²⁶

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THE TIME TO FULL SPEED AHEAD

The IT innovations and investments of the past 50 years are merely a precursor to the next waves of digitization, which will have a truly transformative impact on every aspect of work, society and life. The stakes are even higher because the goal posts are now moving so quickly. The rise of the new machines is a game-changing moment in which it could be all too easy to get sidetracked. The speed of business metabolism needs to be faster.

Companies that accelerate by automating everything they can, instrumenting everything they can, enhancing every worker they can, driving the price points of their products and services as low as they can, and discovering and inventing all their possible futures will be best positioned to take advantage of the Fourth Industrial Revolution.

The speed of change in your business will decide whether you are moving ahead or lagging behind. Ultimate success will require an open mind, perseverance and courage. Your organization has the power to choose whether the speed of change works for or against it. Speed is an enabler of greater efficiency, productivity and profitability, and to master the burgeoning digital revolution, you'll need to be both firm in your mission and flexible when overcoming the inevitable missteps that occur along the way.

Endnotes

- ¹ Klaus Schwab, "The Fourth Industrial Revolution," World Economic Forum, https://www.weforum.org/about/the-fourthindustrial-revolution-by-klaus-schwab.
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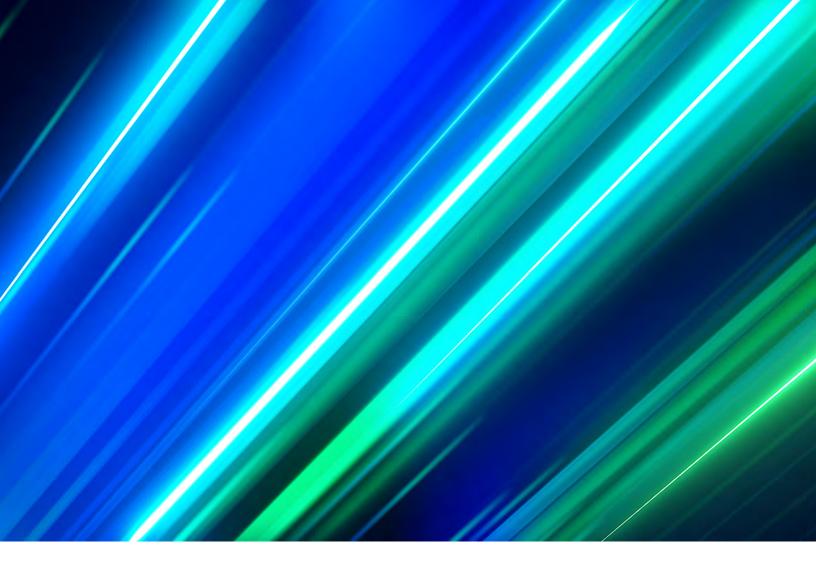
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Cognizant's Center for the Future of WorkTM is chartered to examine how work is changing, and will change, in response to the emergence of new technologies, new business practices and new workers. The Center provides original research and analysis of work trends and dynamics, and collaborates with a wide range of business, technology and academic thinkers about what the future of work will look like as technology changes so many aspects of our working lives. For more information, visit Cognizant.com/futureofwork, or contact Ben Pring, Cognizant VP and Managing Director of the Center for the Future of Work, at Benjamin.Pring@cognizant.com.

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