REDEFINE YOUR COMPANY BASED ON THE COMPANY YOU KEEP.

Intelligent Enterprise Unleashed

Introduction

HOW DO YOU IMPROVE THE WAY PEOPLE WORK AND LIVE?

Leveraging the rapid advancements in technology to create increasingly innovative products and services, businesses are driving unprecedented changes in the way people work and live.

By embedding themselves throughout society, companies are blurring the lines between business and personal—and blazing a new trail for their own future growth. Technology is now firmly embedded throughout our everyday activities, but its reach is larger than that: it's reshaping pieces of our society. This year's Accenture Technology Vision trends highlight the rapid advancements in technologies that, in turn, are improving the ways people work and live.

> **There's a new obligation—and a new opportunity—for companies to engage with people differently.**
>
> **Paul Daugherty** | Chief Technology & Innovation Officer at Accenture

GE is equipping field technicians with cutting-edge augmented reality glasses, changing the way workers engage with the physical world by giving them hands-free access to information, or allowing remote experts to see exactly what the technicians see as they repair wind turbines.[1]

The Chinese education firm Liulishuo is changing education by introducing a new actor into society: a sophisticated artificial intelligence (AI)-powered English teacher that delivers personalized, adaptive learning to millions of people.[2] And responding to the critical need for accurate information to feed the 24-hour news cycle, Thomson Reuters has developed an algorithm that uses streams of real-time data from Twitter to help journalists classify, source, fact-check, and debunk rumors faster than ever before.[3]

Individually, each of these technology-driven efforts represents a company's pursuit of the most creative or disruptive product or service. But their innovative efforts are part of a larger strategy: driving company growth by making technology inseparable—and indispensable—in how things get done. Businesses are using their products and services to reshape and reimagine how our society works, communicates, and even governs. According to the global Accenture Technology Vision 2018 survey, 84 percent of 6,381 business and IT executives surveyed agree that through technology, companies are weaving themselves seamlessly into the fabric of how people live today.

Just look at Amazon's efforts to embed itself into consumer households. Through the Echo and its AI assistant, Alexa, Amazon is managing not just shopping needs, but also the daily demands of busy lives. In fact, Amazon is so integrated into everyday living that new apartment complexes are building dedicated Amazon Lockers into their designs; and people now trust the company with physical access to their homes, letting couriers make deliveries when no one is around via Amazon Key and its smart lock system.[4,5]

These changes are reaching beyond consumer spaces, as well. Tesla and other companies involved in automated driving are embedding themselves into the regulatory course for their own industries, partnering closely with governments to accelerate the development of guidelines needed for autonomous vehicles to operate at scale.[6] In enterprise ecosystems, Siemens is embedding itself into its business partners' architectures. By offering the use of its MindSphere operating system for Internet of Things (IoT) manufacturing devices to anyone, Siemens is cementing itself as an integral part of the new IoT universe—and its tremendous societal reach.[7]

This level of integration is the next great societal evolution. The same way cities were built around railroads, or people rebuilt their lives around electricity, the world is reimagining itself not just around digital innovation but, by extension, around the companies that provide those services.

Of course, society has rebuilt itself around technological disruption many times before, and will no doubt do so again. But this latest transformation is unique: for the first time in a technological transformation, the change is a two-way street. People aren't just using companies' products and services, but feeding information and access back to them. To deliver such "integrated innovation," companies need a profound level of insight and impact into people's lives, and their partners' business. Savvy organizations are realizing that this level of connection—and this degree of trust—will require a new type of relationship. It's not just business; it's personal. And it's how leaders will redefine their company, based on the company they keep.

NEW EXPECTATIONS: READING THE LABELS OF ENTERPRISE

In a world where everything is connected, the lines that have traditionally separated our society into neat little boxes of customers, employees, citizens, companies, and even governments, are blurring.

Increasingly, in exchange for the access and impact they allow companies to have in their lives, people expect partnerships, based not only on a company's products, but its goals, and its values. In short: people are "reading the labels" of enterprise—and companies must define those labels for themselves, or have the labels determined for them.

These new expectations are creating a strain on businesses that have introduced innovative platforms and services. It's a parallel to the innovative startups that sprang up during the dot-com era, only to be forced to take a step back and flesh out traditional business models: companies that have quickly innovated their way into society are now being pushed to develop clear expectations for how those societal interactions will play out.

Years ago, Uber pioneered a new model for working with drivers, upending transit and transportation models. Now, as it has evolved its business model and relationships with local communities, the company is working to address corporate responsibility in its interactions with drivers, customers, and regulatory organizations.

The premium that people, governments, and business partners put on these labels of enterprise stems from the responsibilities that two-way partnerships create. When those responsibilities aren't met, the results are worse than disappointed customers: the failure creates a society disillusioned with the integrated innovation model that businesses rely on to grow.

Security failures at Equifax resulted in a theft of personal information that will impact hundreds of millions of lives for decades to come—including individuals who had no explicit business relationship with Equifax.[8] Rebuilding the trust required to sustain partnerships with consumers, governments, and the general public will be a massive undertaking.

The magnitude of these challenges will only grow as additional revolutionary technologies begin to reach maturity in the coming years, and accelerate technology-driven societal change. Quantum computing has the potential to break the cryptographic standards that underpin the world's financial systems; new workforce models and platforms are shredding the long-accepted understanding of the term "employee"; and as AI grows in capability and reach, there will be large-scale failures and scandals around improper use of the technology.

It's clear that both individuals and society as a whole will have to create new partnerships to deal with the impact of such revolutionary changes—but the role that companies will play remains an open question. How responsible is a company whose secure encryption is broken because of advances in quantum technology? How much blame should a business take if one of its partners uses AI to make decisions in a way that's biased, or invades people's privacy?

There's a reason why tech giants are growing more vocal and active around societal questions, like debates over access and privacy—because actions will define these enterprise labels. Apple went so far as to refuse to give the US government the capability to decrypt the data on an iPhone, and devoted significant time and resources to explaining its decision to the public.[9] That level of discourse was no accident: it's demonstrating what the company will and won't do as part of their partnerships with customers, governments, and the public—and the first step on a path toward defining a formalized corporate social contract.

DEFINING THE CORPORATE SOCIAL CONTRACT

While new expectations driven by a shifting technology landscape can be daunting, pioneering companies have recognized that these new societal expectations can be transformed into an enterprise strength.

They're using their increased and embedded technology interactions to lean in and build deeper partnerships with customers, employees, governments, and the public. By explicitly defining the nature of their partnerships, these leading companies are also defining the new corporate social contract.

Creating a consistent set of principles around their relationships will help companies meet raised expectations. But it's also becoming a key piece of empowering the business to innovate and grow. The commitments a company makes to partnership will become the "nutritional value" information that people are searching for; as companies build and extend their ecosystems, individuals and organizations with goals and ideals that match their own will be natural partners. Ultimately, companies will create the "terms and conditions" for their constellations of relationships within the connected society—and create a clear path for their future growth.

The nature and scope of these new terms and conditions will vary with the type of partnership, whether it's with customers, employees, governments, or the public. So, too, will the opportunities for growth from putting them in place.

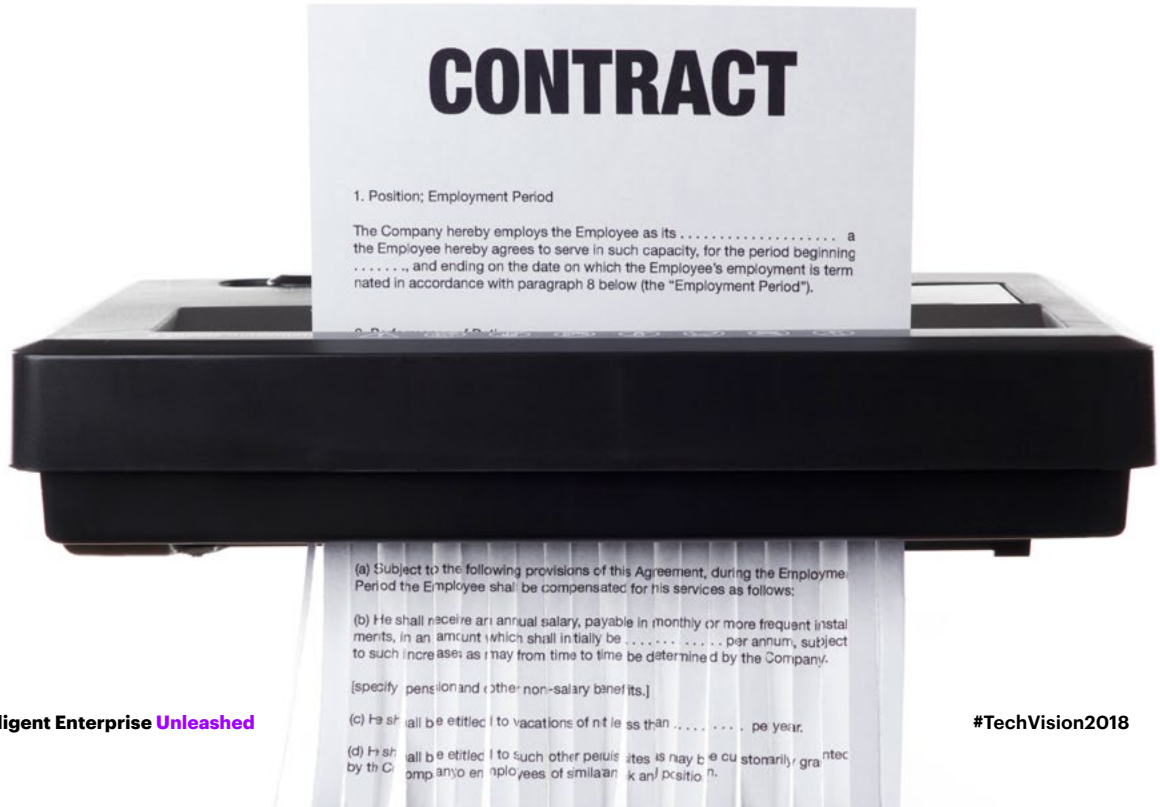
L'Oréal, the cosmetics company, is paving the way. To continually operate as a good partner with society, the company wrote a strict ethical charter that was drafted in collaboration with French government agencies and international ethics organizations.[10] Importantly, the charter serves as a decision-making framework across nearly every aspect of L'Oréal.

Guided by the charter, L'Oréal also requires that potential suppliers commit to an equally strict set of ethical standards, and guides internal buyers through steps to ensure they are purchasing from suppliers who meet that code.

To partner with the public, the charter established tenets around environmental responsibility: the company has reduced carbon emissions by 67 percent, only purchases palm oil from sustainably managed forests, and invested in building "dry" factories that will only use recycled water—set to appear in 2018. Jean-Paul Agon, L'Oréal's Chairman and CEO, reiterates that these changes are mandated not merely by conscience, but also by business need. "The next 10 years will see ethics becoming no longer a 'nice to have,' but a fundamental prerequisite to any organization's license to operate. For companies that are leaders in this area, it will become a competitive advantage."[11]

Just as important as partnering with customers, treating employees as invested allies will define company culture, and create a sustainable foundation on which to innovate and execute. Internal research at AT&T found that nearly half of its 240,000 workers were in roles that the company would no longer need in a decade's time.[12] They also found that only half of their staff had training in science, technology, engineering, and math (STEM), while the projected need for those skills would reach 95 percent of the workforce by 2020. In response, AT&T's billion-dollar Workforce 2020 initiative aims to retrain and prepare a quarter of its workforce for radically new jobs. In 2016, the company filled more than 40 percent of open positions with internal candidates.

In defining the responsibilities it will accept with each type of partnership, the enterprise can define a new corporate social contract—setting the guideposts for its path forward.



EMBEDDING OPPORTUNITY

As companies have reached further than ever into people's lives, they've shaped society around their products and services. This transformed society now provides the new foundation for each company's future growth.

Through new partnerships with customers, employees, partners, and even governments, companies are empowered to build ever-stronger access and trust. This trust will give companies the inroads to further embed themselves into society, becoming ever more indispensable—and empowering their own revolutionary growth. (See Figure 1.)

84%

of executives agree that through technology, companies are weaving themselves seamlessly into the fabric of how people live today.

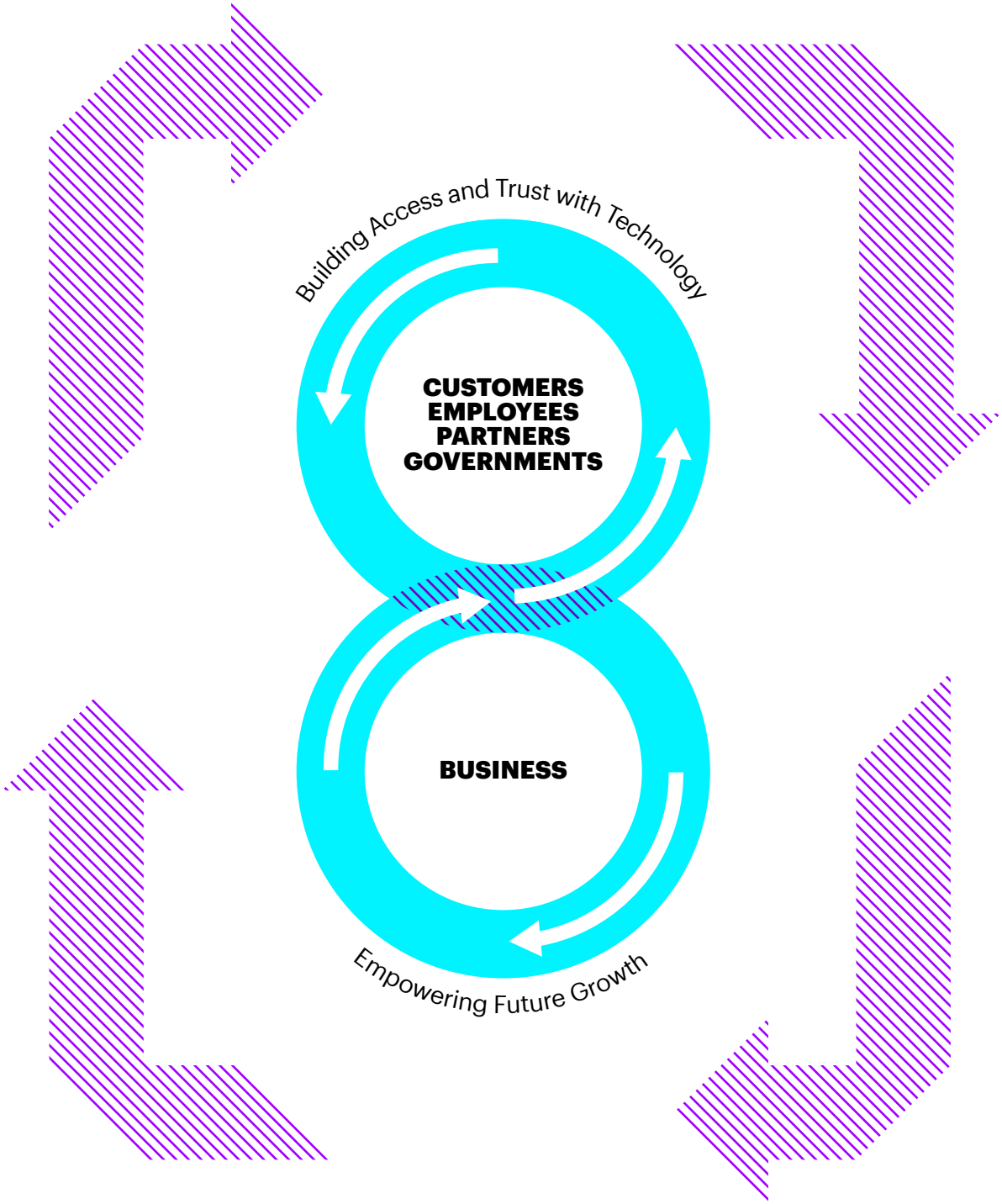


Figure 1—Positive Feedback Loop.

2018 Tech Trends

INTELLIGENT ENTERPRISE UNLEASHED

Technology-based products and services have a tremendous impact on the way people work and live. Through those products and services, businesses are driving unprecedented change in society.

This year's Accenture Technology Vision highlights five emerging trends shaping the way technology is increasing businesses' impact across society. But in exchange for the unprecedented access and influence businesses enjoy today, people are demanding more responsibilities from them. In each chapter, you will see how expectations are growing, as customers, employees, business partners, governments, and more, seek formalized partnerships with businesses.

Trend 1
CITIZEN AI
Raising AI to Benefit Business and Society

As artificial intelligence grows in its capabilities—and its impact on people's lives—businesses must move to "raise" their AIs to act as responsible, productive members of society.

Trend 2
EXTENDED REALITY
The End of Distance

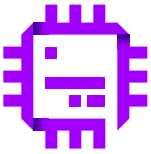
Virtual and augmented reality technologies are removing the distance to people, information, and experiences, transforming the ways people live and work.

Trend 3
DATA VERACITY
The Importance of Trust

By transforming themselves to run on data, businesses have created a new kind of vulnerability: inaccurate, manipulated, and biased data that leads to corrupted business insights, and skewed decisions with a major impact on society.

Trend 4
FRICTIONLESS BUSINESS
Built to Partner at Scale

Businesses depend on technology-based partnerships for growth, but their own legacy systems aren't designed to support partnerships at scale. To fully power the connected Intelligent Enterprise, companies must first re-architect themselves.



Trend 5
INTERNET OF THINKING
Creating Intelligent Distributed Systems

Businesses are making big bets on intelligent environments via robotics, AI and immersive experiences. But to bring these intelligent environments to life, they must extend their infrastructures into the dynamic, real-world environments they want to reach.

Conclusion

As part of Accenture's multi-year perspective on technology's impact on enterprise, these trends reflect the continuously evolving digital culture that creates challenges and opportunities for organizations worldwide.

Since the dawn of the digital era, businesses have been doing more with each passing year: Becoming digital themselves; growing more involved in people's lives; embracing the "People First" view of the changing enterprise landscape. Now we're at a point of fusion: businesses are looking to reshape society, and can't do it alone. Partnerships with people are the clear path forward for every business, and for society as a whole.

Each year's individual Vision trends highlight new or evolving technologies and their emerging impact across enterprise. Some technologies are already playing important roles in the strategies of leading companies, while others are just beginning to emerge as difference-makers. Viewed as a whole, our Technology Vision trends provide a guidepost for the way companies must consider their resources, responsibilities, and opportunities for success in the years to come.

With businesses shaping change throughout the world, being a leader isn't just about incorporating new technologies. It's about the ways you partner throughout everyday life with people to improve lives and shape society—and in so doing, build the foundation on which you'll continue to grow.

> **This new era is all about how we can use these ties and information that we have about companies—and they have about us—to change the way that we work together.**

Michael Biltz | Managing Director,
Accenture Technology Vision—Accenture Labs

Completing the Picture

The current three-year set of technology trends relating to Accenture's Technology Vision includes these reports from 2017 and 2016:

Accenture's Technology Vision comprises a three-year set of technology trends, and it's important to recognize that this year's trends are part of a bigger picture. As companies continue to grow as digital businesses, they will need to keep up with the latest technologies, as well as continue to master those that have been maturing. These technologies will collectively inform how enterprises build the next generation of business, and create paths toward future growth. To reference the papers behind the full set of trends below (See Figure 2), please go to the 2016, 2017 and 2018 Technology Vision webpages.

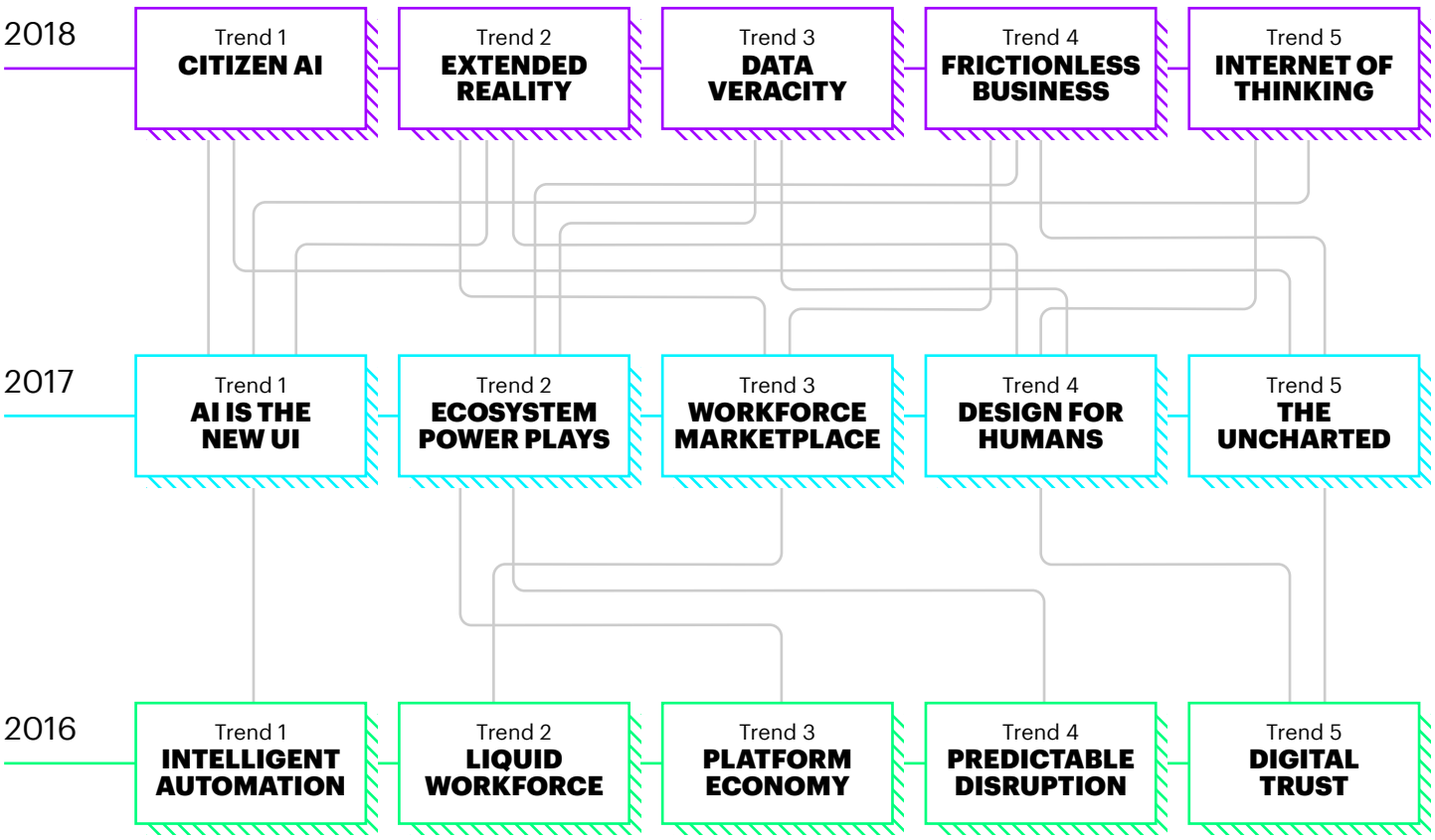


Figure 2—Evolution Chart.

2017

Trend 1
AI IS THE NEW UI
Experience Above All

Artificial intelligence (AI) is about to become your company's digital spokesperson. Moving beyond a backend tool for the enterprise, AI is taking on more sophisticated roles within technology interfaces. From autonomous driving vehicles that use computer vision, to live translations made possible by artificial neural networks, AI is making every interface both simple and smart—and setting a high bar for how future interactions will work. It will act as the face of a company's digital brand and a key differentiator—and become a core competency demanding of C-level investment and strategy.

Trend 2
ECOSYSTEM POWER PLAYS
Beyond Platforms

Companies are increasingly integrating their core business functionalities with third parties and their platforms. But rather than treat them like partnerships of old, forward-thinking leaders leverage these relationships to build their role in new digital ecosystems—instrumental to unlocking their next waves of strategic growth. As they do, they're designing future value chains that will transform their businesses, products, and even the market itself.

Trend 3
WORKFORCE MARKETPLACE
Invent Your Future

The future of work has already arrived, and digital leaders are fundamentally reinventing their workforces. Driven by a surge of on-demand labor platforms and online work management solutions, legacy models and hierarchies are being dissolved and replaced with open talent marketplaces. This resulting on-demand enterprise will be key to the rapid innovation and organizational changes that companies need to transform themselves into truly digital businesses.

Trend 4
DESIGN FOR HUMANS
Inspiring New Behaviors

What if technology adapted to you? The new frontier of digital experiences is technology designed specifically for individual human behavior. This shift is transforming traditional personalized relationships into something much more valuable: partnerships. Business leaders recognize that as technology shrinks the gap between effective human and machine cooperation, accounting for unique human behavior expands not only the quality of experience, but also the effectiveness of technology solutions.

Trend 5
THE UNCHARTED
Invent New Industries, Set New Standards

Businesses are not just creating new products and services; they are shaping new digital industries. To fulfill their digital ambitions, companies must take on a leadership role to help shape the new rules of the game. Those who take the lead will find a place at or near the center of their new ecosystem, while those that don't risk being left behind. From technology standards to ethical norms to government mandates, in an ecosystem-driven digital economy, one thing is clear: a wide scope of rules still needs to be defined.

2016

Trend 1
INTELLIGENT AUTOMATION
The Essential New Coworker for the Digital Age

Leaders will embrace automation not just to take advantage of the breakneck pace of digital change, but also to create a new digital world where they hold competitive advantage. Machines and artificial intelligence will be the newest recruits to the workforce, bringing new skills to help people do new jobs, and reinventing what's possible.

Trend 2
LIQUID WORKFORCE
Building the Workforce for Today's Digital Demands

Companies are investing in the tools and technologies they need to keep pace with constant change in the digital era. But to achieve their ambitious goals, leaders are refocusing on an often overlooked factor: the workforce. They are looking at technology as not just a disrupter, but also an enabler to transform their people, projects, and entire organizations into a highly adaptable and change-ready enterprise. In short, business leaders are realizing their new liquid workforce can become their new competitive advantage.

Trend 3
PLATFORM ECONOMY
Technology-Driven Business Model Innovation from the Outside In

Industry leaders are unleashing technology's power by developing not only new technology platforms, but also the platform-based business models and strategies they enable. But the technology changes are only the beginning.

Trend 4
PREDICTABLE DISRUPTION
Looking to Digital Ecosystems for the Next Waves of Change

Fast-emerging digital ecosystems—think precision agriculture, the industrial Internet or smart cities—create the foundation for the next big wave of enterprise disruption. Digital ecosystems like these, and the businesses that power them, are straddling markets and blurring industry boundaries.

Trend 5
DIGITAL TRUST
Strengthening Customer Relationships through Ethics and Security

To gain the trust of individuals, ecosystems, and regulators in the digital economy, businesses must possess strong security and ethics at each stage of the customer journey. And new products and services must be ethical—and secure-by-design. Businesses that get this right will enjoy such high levels of trust that their customers will look to them as guides for the digital future.

RESEARCH METHODOLOGY

Every year, the Technology Vision team partners with Accenture Research to pinpoint the emerging IT developments that will have the greatest impact on companies, government agencies, and other organizations in the next three to five years. These trends have significant impact across industries, and are actionable for businesses today.

The research process begins by gathering input from the Technology Vision External Advisory Board, a group of more than two dozen experienced individuals from the public and private sectors, academia, venture capital, and entrepreneurial companies. In addition, the Technology Vision team conducts interviews with technology luminaries and industry experts, as well as nearly 100 Accenture business leaders from across the organization.

Each year, the research process also includes a global survey of thousands of business and IT executives from around the world, to understand their perspectives on the impact of technology in business. Survey responses help to identify the technology strategies and priority investments of companies from across industries and geographies.

As a shortlist of themes emerges from the research process, the Technology Vision team reconvenes its advisory board. The board's workshop, a series of 'deep-dive' sessions with Accenture leadership and external subject-matter experts, validates and further refines the themes.

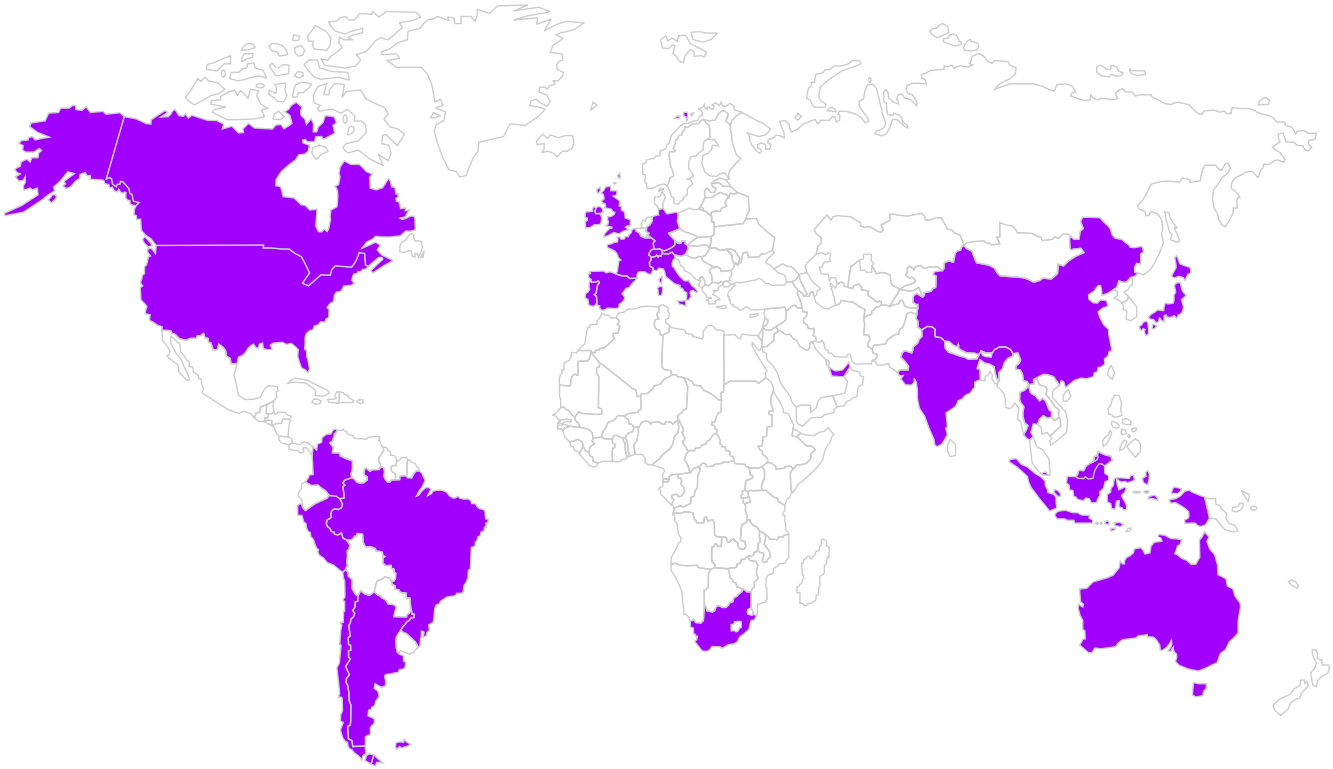
These processes weigh the themes for their relevance to real-world business challenges. The Technology Vision team seeks ideas that transcend the well-known drivers of technological change, concentrating instead on the themes that will soon start to appear on the C-level agendas of most enterprises.

Technology Vision 2018

SURVEY DEMOGRAPHICS

Technology Vision 2018 Survey Demographics

For the fourth year, we conducted a global survey of thousands of business and IT executives to understand their perspectives on the impact of technology on their organizations, and to identify their priority technology investments over the next few years. More than 6,300 executives from 25 countries responded to the survey, which was fielded from November 2017 through January 2018.



25 COUNTRIES SURVEYED

Argentina	Chile	India	Peru	Switzerland
Australia	China	Indonesia	Portugal	Thailand
Austria	Columbia	Ireland	Singapore	United Arab Emirates
Brazil	France	Italy	South Africa	United Kingdom
Canada	Germany	Japan	Spain	United States

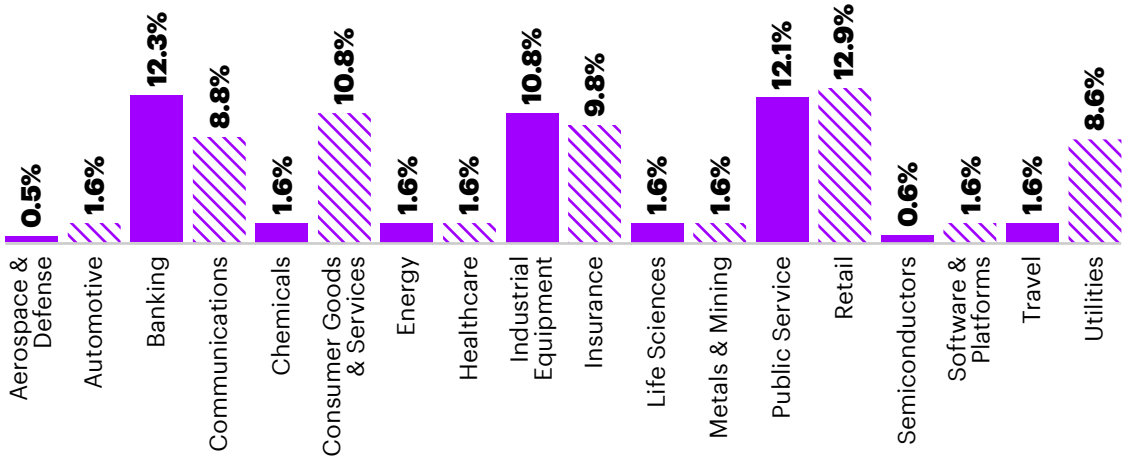
Role

7%	12%	23%
CIO/Chief Mobility Officer	CTO/Director of Technology	Director, IT
9%	8%	12%
CMO	CFO	COO
8%	15%	6%
CSO	Function Head (Non IT-related)	Line of Business Head (Non IT-related)

Revenue (USD)

4% $50 billion or more	**7%** $20–$49.9 billion	**15%** $10–$19.9 billion
27% $6–$9.9 billion	**45%** $1–$5.9 billion	**2%** $500–$999 million

Industry



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