

# The Future of Work and Talent: Culture, Diversity, Technology

**Published:** 6 April 2018   **ID:** G00354454

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The future of work is about forging a new relationship between technology and talent that transforms existing ways of working and doing business. This Special Report helps CIOs to shape this digital future with advice on long-term scenarios to inform strategy and near-term actions to implement it.

## Opportunities and Challenges

- Work is the nexus of technology and people. Facilitating and managing this nexus is one of the biggest challenges facing CIOs as they grapple with the future of work.
- One key to digital business success will be combining technology and talent in new ways to create and sustain new, high-value business and operating models.
- Embedding artificial intelligence (AI) capabilities in talent selection will enable organizations to actively seek out and engage potential workers, creating a more diverse and flexible workforce with skills closely matched to top business priorities.
- The effects of technology and social trends on how people work will vary by industry, geography and demography, each of which has distinct requirements, constraints and potentiality for redefining the future of work.

## What You Need to Know

- Starting in 2020, Gartner predicts that AI will create more jobs than it destroys by delivering new business value that outpaces the value of automating existing tasks. CIOs should lead in telling this story and making it a reality.
- CIOs should promote digital dexterity and digital workplace strategies that enhance workforce readiness and equip workers with the skills, learning and tools needed for productively thriving in digital business.
- CIOs should actively collaborate with business and HR leaders to assess and reform organizational design, culture, diversity and talent practices to leverage new ways of working and new human capital management technologies.

- Leading CIOs, in collaboration with business and HR leaders, use scenario planning and other future studies techniques to inform strategic technology and talent planning.

## Insight From the Analyst

### You Will Shape the Future of Work by How You Invest in Technology and People

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[Helen Poitevin](#), Research Director

The technology we invent and use shapes us in many ways — in our relationships, businesses and communities, in how we work and how we organize work. This has always been the case. Prehistoric agriculture technology caused repetitive motion disorders, as do modern digital devices. Today, younger generations prefer texting to calling. We're still sorting out the human and productivity implications of remote work technologies. Disruptive new technologies continue to emerge, compelling employees to adapt and respond ever faster.

Organizations no longer can treat technology and people investments as two separate activities.

CIOs must bring together technology and people to build tomorrow's businesses, platforms and ecosystems, and ready employees to thrive in them. A vital lesson of this Special Report is that CIOs can, and should, shape the future of work with a technology-people interrelationship in mind. One example is the use of AI, which will automate and augment an array of human jobs both existing and new. The interplay of people and AI is where CIOs can create most value.

We examine five areas that affect the future of work:

- **The big picture** — How to leverage top trends and future work scenarios.
- **Industry focus** — Find the competitive advantage of defining future work for your vertical.
- **Act locally** — Make digital workplace investments to ensure employee readiness.
- **Reform ambitiously** — Revamp culture, diversity, structures and talent to support the future of work.
- **Digital skill building** — How to grapple with talent shortages and cultivate digital dexterity.

Our research spans pragmatic "how tos" in the near term and practical advice on preparing for what the world of work may look like in the next 10 to 15 years.

Sincerely,

Helen Poitevin

## Executive Overview

### Definition

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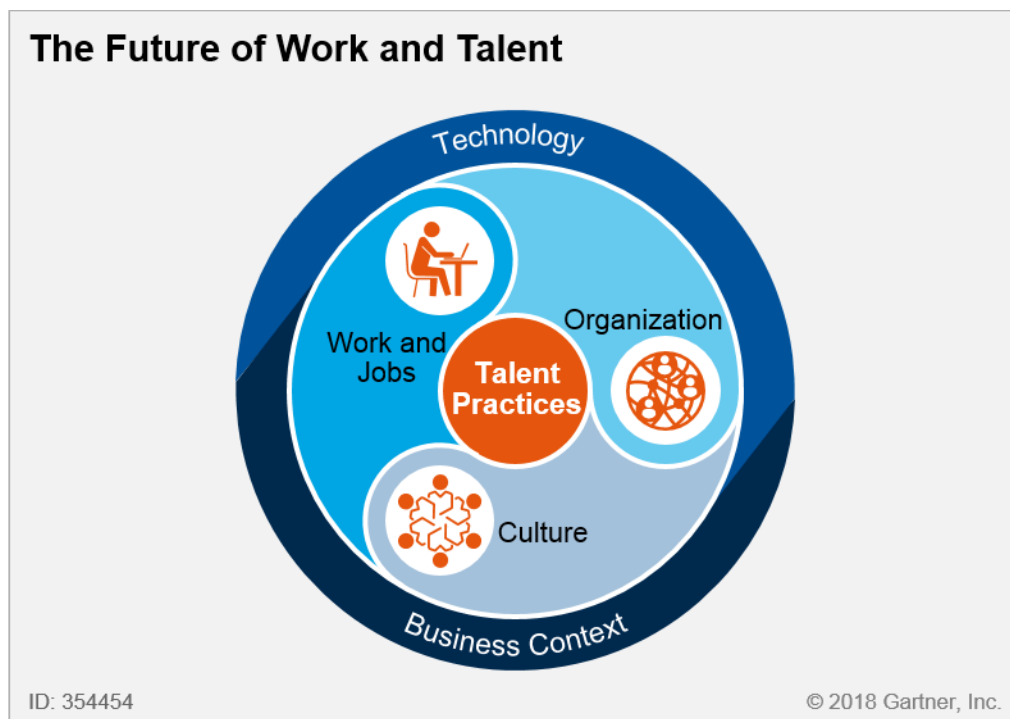
Large-scale, long-term changes in technology, diversity and culture are transforming more than just jobs. They are transforming the meaning and value of work and the reasons we work. These trends intersect with a key organizational dynamic: changing work environments and flexible working arrangements. This dynamic has been named as the biggest demographic and socioeconomic driver of change across industries.<sup>1</sup> CIOs need to understand what the key trends are that lead to work transformation and how these impact their organizations.

The scale and complexity of these trends is daunting and potentially overwhelming. AI promises to both automate and augment jobs. It is already sparking anxieties, debates and distrust about society's proper role in this disruption. Further geopolitical and societal pressures add complexity. Meanwhile, organizations face mounting pressure to invest in the platforms, emerging technologies, talent practices and skills that will position them to survive and thrive.

In a digital world, speed and agility are essential. Are your people and organization ready to take full advantage of these new waves of automation and innovation? CIOs must align technology with business context to support major changes in work and jobs, in organizational structures and in culture. Evolving talent practices will unify action in all three areas (see Figure 1).

Defining the "future of work" involves, first, assessing the key technological, social and cultural forces acting on workers (both employees and contingent workers). Second, it involves exploring the interplay of technology and people to find new ways of working.

Figure 1. The Future of Work and Talent: Culture, Diversity, Technology



Source: Gartner (April 2018)

## Research Highlights

### The Big Picture: How to Leverage the Top Trends and Future Work Scenarios

Broad trends can easily seem abstract, remote, vague or overwhelming. To counter these tendencies, this set of research reports has two goals. First, it analyzes the trends that matter most to the future of work. Second, it guides CIOs in deciding on their planning and action priorities in the near term.

The notes in this section feature a "package" of related scenario planning notes and six other notes dealing with this "big picture."

An important tool for planning and action is scenario planning. Scenarios enable you to identify opportunities, risks, business value and decision points. They inspire brand new ways of looking at aspects by disrupting conventional assumptions and thinking. Here, we use scenario planning to examine one specific, long-range question related to the future of work:

"How should leaders prepare for a future where the majority of the workforce is made up of machines?"

We explore this question in five research reports under the theme "Future of Work Scenarios 2035." One is an overview report. The others examine, in detail, four possible alternative futures for bots — autonomous programs that can interact with computer systems or users — and their effects. Each note examines a 17-year span, identifying early indicators to watch for and actions to take to either fully exploit a scenario's value or to sidestep or minimize its negative effects.

*The additional notes in this "big picture" section have a much shorter timeline of three to seven years. These notes offer analysis and guidance on the key trends related to high-level strategy, work, AI and the "voice of things" — analogous to the voice of the customer — in the Internet of Things.*

#### *Recommendations:*

- Leverage scenario planning techniques to evaluate potential work and talent futures for your organization by identifying short- and medium-term actions that start enabling new combinations of people and technology.
- Design experiences — for employees and customers — that tap into human capabilities and promote human well-being by investing in both technology and talent.
- Ground and guide decisions about the future of work in your organization by leading IT and business stakeholders in assessing digital ethics and digital connectivism (see "The CIO's Guide to Digital Ethics: Leading Your Enterprise in a Digital Society" and "Introducing Digital Connectivism: A New Philosophy for the Digital Society").

#### Related Research

"Future of Work Scenarios 2035: How Will Executives Manage a Majority-Bot Workforce?" — This overview report describes our approach to exploring the possible long-range futures based around one question:

*"How should leaders prepare for an environment in which most of their workforce consists of machines?"*

The overview creates a framework for understanding the impact of two powerful forces — the capability of machines and the extent to which humans will be accepting of them. In addition to the overview, there are four notes that each detail a specific scenario for the 17-year span:

- "Future of Work Scenarios 2035: 'Minibot Proliferation'" — In this scenario, machines of narrow capabilities heavily populate homes and workplaces, and humans are generally supportive. The presence of even these limited bots in high numbers produces major changes in workplaces and society, and in the ways leaders manage and lead the workforce.
- "Future of Work Scenarios 2035: 'I'd Rather Have a Bot Do It'" — In this scenario, AI drives both software- and hardware-centric bots that surround people in their day-to-day life, enriching and enhancing the human experience. Most people see both AI and bots as being very positive for humanity.

- "Future of Work Scenarios 2035: 'Bots Go Bad'" — In this scenario, most people reject this powerful technology because they see it as having negative impacts on humans. AI is in the control of only a few actors, who may or may not be altruistic in their use of it. Leaders should strive to put in place actions to avoid this scenario.
- "Future of Work Scenarios 2035: 'Bots Can't Drive'" — In this scenario, machines are not always reliable, sometimes unsafe and can't be trusted to make important decisions. Certified operators micromanage workplace bots in a new workforce design filled with leader challenges and regulatory requirements.

"Anticipate and Exploit the Top 12 Future Work Trends" — Fast-evolving work patterns force application leaders — along with HR and business leaders — to develop new competencies in understanding and exploiting future of work trends, such as digital dexterity leveraged for competitive advantage. These competencies enable leaders to better align technology strategies with the overall employee experience. *This report deals with trends that we expect to enter the mainstream in developed nations in the 2022-2026 period.*

"Three Ways to Listen to the Voice of 'Things' in the IoT" — In the not-too-distant future (3 to 10 years), customers, citizens and workers will not necessarily be humans: they will be AI-powered "things." Application leaders should work with HR to explore the broader implications of such automation. One implication is how humans will need to adapt if they work alongside machines that can provide intelligent feedback and recommendations, not just advanced analytics.

"How We Will Work in 2028" — Intelligent software and AI-powered robots will join humans at work by 2028. CIOs must anticipate how trends in business, society, technology and information will converge to shape where, when, why and with whom we will work in a digital business.

"Forecast: The Business Value of Artificial Intelligence, Worldwide, 2017-2025" — AI technologies are causing technology strategic planners to redraw near-term and long-term product plans. AI will be pervasive by 2020. Gartner's forecast of AI business value, broken down by AI type, serves as an invaluable guide to R&D investment.

"Predicts 2018: AI and the Future of Work" — Over the next three to five years, AI will have a far-reaching impact on how we will work. It will obsolete some jobs, create new ones and change many others. IT leaders must orchestrate major enterprise workforce changes to reap the business value of AI.

"How Virtual Assistants, Immersive Experiences and Robots Will Impact Your Organization" — Virtual assistants, immersive experiences and robots will transform how employees interact in a digital workplace, driving greater productivity and efficiency. Application leaders can leverage these emerging technologies to create effective and engaging user experiences in the future digital workplace.

## Industry Focus: Create Competitive Advantage by Defining the Future Work for Your Industry

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The future of work will play out differently in different industries and vertical markets. The big picture trends will compel CIOs to assess their impacts in an industry context and enact changes based on

those assessments. The prize for acting decisively will be increased competitive advantage in industry and enhanced citizen experience in government.

The pace of digital innovation and the type of work being done will vary by industry, leading to different and disparate technology impacts.

An industry focus also enables CIOs to study the experiences, both good and bad, of other industries and apply relevant lessons to their respective organizations.

The following research reports typically focus on specific, near-term impacts spanning the next two to five years. AI's industry impact is the explicit subject of two reports, one focusing on the oil and gas industry, the other on transforming the omnichannel model for customer experience. Both reports reflect the reality of AI as a transformative, enabling technology that will become embedded in new or evolving business processes related to employees, their work and their overall employee experience. Some reports analyze the emerging impacts and needed changes in higher education, urban manufacturing, retailing and supply chain. One of the reports describes a framework for learning from other industries.

#### *Recommendations:*

- Prove ideas for AI and automation investment by building strong peer networks to leverage other industries' experience and insights.
- Track and study the impacts of future of work trends within and across all industries, and assess how they may disrupt your industry.
- Support your organization's digital transformation by building a future of work strategy and execution plan that assesses work trends and their potential impacts (including industry disruption) and links them with digital business outcomes.

#### Related Research

"Cross-Industry Best Practices and Perspectives on the Future of Work" — Learning about the best future of work practices can be a frustrating experience. CIOs should be sufficiently open-minded to look at other industries for transferable best practices. To focus this effort, Gartner has developed a framework that can help CIOs narrow their focus, based on their industry dynamics and business goals.

"AI and the Future of Work in Oil and Gas" — AI will have far-reaching effects on the nature of work in the oil and gas industry. CIOs should analyze these trends, assess their impacts and adopt AI technology strategies to improve safety, efficiency and profitability.

"The Future of Work Will Demand Changes to Higher Education" — As the workplace changes, there is growing demand for upskilling, for a greater focus on digital dexterity and for more

emphasis on collaborative work. Yet higher education has been slow to adapt how it prepares students for these demands. CIOs must build the infrastructure that supports these trends to prepare for the future of learning and remain relevant for the future of work.

"How Digital Transformation Opens New Labor Opportunities for Urban Economy and Industrie 4.0" Digitalization and the data economy lead to new business models in manufacturing and Industrie 4.0 workflow automation. These models require employees with high digital dexterity. CIOs need to invest in the emotional and behavioral training of employees, and in knowledge exchange and learning hubs for continuous learning.

"Three Steps CSP CIOs Can Take to Address Their Talent Challenge" — Service providers in the evolving communications market are struggling to attain the needed skills and competencies for success. CSP CIOs must address skills, culture and leadership transformation to succeed in developing talent for digital business.

"Will People or Machines Rule Algorithmic Retailing?" — AI is overwhelming many business leaders due to its complexity and disruptive workplace implications. Retail CIOs must take the lead in setting the organization's AI technology course as part of an overall retail digital business strategy.

"Industry Vision: Leveraging the Retail Associate as a Platform for In-Store Transformation" — To succeed in digital business transformation, retail CIOs must enable retail associates to develop the digital dexterity necessary to increase their engagement. With digital skills, associates can create successful customer experiences, leading to long-term growth and stability.

"AI Will Enable Omnichannel to Evolve Into a Postchannel Customer Experience" — AI and deep learning, embedded in various CRM applications, are driving a revolutionary shift in customer expectation: the postchannel experience. The key to customer satisfaction will be leveraging AI to solve the customer need on the channels they want to use, for the task they want to address.

"Supply Chain Brief: Fear of Workplace Flexibility" — Supply chain management lags other professions in workplace flexibility, making careers at manufacturers, distributors and retailers relatively less attractive. To hire and retain even average performers, supply chain leaders must embrace more flexible work practices.

## Act Locally: Make Digital Workplace Investments to Ensure Employee Readiness

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CIOs are developing the digital workplace to enable new, more effective ways of working, which will raise employee engagement and agility and exploit consumer-oriented styles and technologies. The digital workplace becomes the arena in which your organization's specific workforce and workspace needs, investments and objectives will be realized.

These research reports explore the attitudes of digital workers, the nature of the digitalized employee experience, and the need to optimize the workplace for employees' digital devices. These and other digital workplace initiatives depend for success on a committed collaboration involving line-of-business leaders and end users, IT organizations, HR professionals and real-estate and facilities leaders. They all have a stake in the future of work in the organization.

### *Recommendations:*

- Invest in employee experience design capabilities, with responsibilities shared across IT, HR, facilities management and the business. Describe worker personas and employee journeys. Implement targeted changes designed to improve employee experience.
- Deploy digital workplace technologies that will cultivate digital dexterity, promote organizational and worker readiness for digital transformation, and boost the impact of future waves of technological innovation.
- Redesign office spaces to enable employees to be more effective, productive and creative.

## Related Research

"Understand Five Key Types of Worker to Energize Your Digital Workplace" — Workers differ in how they interact with equipment, software and each other. By understanding five key types of worker, application leaders will be better placed to make digital workplace investments benefit their organization.

"Use Digital Workplace Programs to Augment, Not Replace, Humans With AI" — AI, robotics and automation require employees to build new competencies and to embrace new ways of working. Application leaders responsible for digital workplaces should amplify the digital dexterity of the workforce by combining human abilities with artificial intelligence.

"Millennial Digital Workers Really Do Differ From Their Elders" — Millennials are a diverse group whose members vary in their attitudes toward work. Application leaders aiming to improve the digital dexterity of their workforces will benefit from the results of a recent Gartner survey that explores what today's youngest digital workers want.

"Survey Analysis: Digital Workers Offer a Reality Check on the Digital Workplace" — Gartner's second survey of digital workers shows major differences in the attitudes of IT and non-IT employees toward their organization's technology. Many digital workers — especially non-IT workers — think senior managers are out of touch with workers' digital technology challenges. Application leaders can use these findings to improve communication, integration and workers' digital dexterity.

"Learn How the Future of Work Is Transforming Employee Experience Globally" — Case studies show that workforce automation, digital dexterity and the gig economy have delivered significant business value, consistent experiences and revenue growth. Application leaders can reap these benefits by learning from five forward-looking organizations, all of which have paved their way to the future of work.

"Use Content Services to Boost Digital Dexterity by Continuously Informing Employees" — Advances in content services technologies now let enterprises automatically find, extract and deliver relevant information to the right employee at the right moment. But application leaders must design the digital workplace to continuously inform employees, rather than continuously interrupt them.

"Market Insight: Enabling Smart Workplaces to Support Future Digital Business — Devices' Role" — Digital workers will use a wider range of devices and tools in smart workspaces, while organizations will focus on better business outcomes. Technology strategic planners must offer future office device solutions by creating partnerships around contextual support, management and productivity tools.

"The Evolution of Digital Workplace: Devices' Role" — People in digital workplaces are widely diverse in factors such as demographics, roles, inclinations and attitudes. Technology strategic planners within device providers can use this research to develop strategies for engaging five digital worker "personas" in the evolving workplace.

"Crafting Workspaces That Enhance the Employee Experience" — The desire to improve the employee experience presents an opportunity for application leaders of digital workplace programs to work with real-estate and facilities leaders to create inspiring workspaces. This research provides proven practices to encourage collaboration and allow remote working.

"Global Digital Workplace Programs Exemplify Promise and Progress Worthy of Emulating" — Organizations are speeding up deployment of digital workplace programs. This research note examines 13 real-world examples of such programs. These examples and their lessons let application leaders identify and work toward the business benefits, objectives and current maturity levels of their digital workplace initiatives.

## Reform Ambitiously: Revamp Culture, Diversity, Structures and Talent Practices to Support the Future of Work

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Technology is such an obvious and important driver of the future of work that it's easy to overlook other, equally important drivers and influences. Work doesn't exist in an organizational vacuum. It embodies and reflects not only the organization's culture and structures but those of the larger society.

Work is the nexus of technology and people. Facilitating and managing this nexus is one of the biggest challenges facing CIOs as they grapple with the future of work.

Previous assumptions and practices treated technology and people separately and mechanically, with people merely being technology *users*. Reforming culture, diversity, organizational structures and talent practices is essential for a new approach, with technology being a people *enabler*. One example is the way a variety of emerging technologies are coming together to unleash the latent capabilities of 350 million people with disabilities, leading to employment rates on par with the general population (see "Maverick\* Research: From Disability to Superability, Society and the Workplace Are Changing").

An area in which this new approach will crystalize is human capital management (HCM), particularly with regards organizations' investments in this platform. Several of these research reports specifically analyze HCM technologies and their impacts on current and future HR processes. As

HCM becomes embedded in the future of work, HR leaders (with CIOs) will be compelled to rethink their own roles and responsibilities in terms of creating a worker-centered HR capability.

These research notes guide CIOs in placing work in a larger organizational context — of HCM, organizational structures, diversity and inclusion, cultural attitudes and expectations, changing management models and talent management.

#### *Recommendations:*

- Strategize and collaborate with the chief human resources officer (CHRO) with the goal of enabling employees to do their best work. Use technology to tap into individual workers' capabilities, build and promote a positive organizational culture and guide business leaders to rethink organizational structures.
- Reassess talent management processes and the technologies to support them by building and executing an updated five-year strategy that takes into account scenarios described in this research.

#### Related Research

"Don't Let Your Culture Derail Your Diversity Efforts" — Organizational culture has a stronger influence on the success of diversity and inclusion programs than good intentions do, yet few application leaders critically assess their culture. This research guides application leaders in spotting the cultural obstructions to inclusive ways of working and identifying actions to let diverse talent bloom.

"Evolving Business Operating Models Will Affect the Future of Work" — In today's hypercomplex digital economy, the senior leadership of an enterprise must juggle different types of business operating models (BOMs), including the emerging "adaptive BOM." These models affect the organization's future of work because they align employee and other capabilities to capture an ongoing stream of fleeting opportunities in the face of persistent, fast and potentially major change. This research guides CIOs in devising work scenarios that are best suited to adaptive BOMs.

"The Art of Culture Hacking" — What's the biggest barrier to change and transformation? According to CIOs, the resounding answer is "culture." But that's not a very useful answer because culture is big, unwieldy and hard to change. So most CIOs approach big change with big transformation efforts. In this research, we propose that you hack your culture instead.

"Rethinking Human Capital Management Technologies to Support Emerging Talent Operating Principles" — Many HR practices are simply automated holdovers from the 1970s. Organizations need new talent operating principles to keep pace with digital business change. This research introduces five such principles that application leaders for HCM should use to reveal what's really happening with people, expertise and workforce practices, and to shape long-term HCM technology strategy.

"Digital Business Redefines Talent Management Applications" — As organizations embark on digital transformation, they must move beyond merely standardizing and digitizing talent management

processes. The need for speed and agility requires continuous process evaluation and technology experimentation (including AI) to fit the enhanced workforce and experience definitions. Application leaders must support HR by selecting the right technology in talent acquisition, learning and performance management.

"Why and How to Align Your HCM Technology Strategy to the Future of Work and the Digital Workplace" — Many enterprises don't have a comprehensive HCM technology strategy, or if they do, don't keep it up to date. The HCM application portfolio risks falling out of sync with the needs of the organization, its workers and HR. This research helps application leaders ensure that the HCM portfolio is current and viable.

"How We Will Work in 2028 Demands Changes in How We Will Reward" — The future of work disrupts the traditional workplace, employment models and work relationships. How we reward people must align with the new reality of where, when, why and with whom we will work. As a result, CIOs must partner with HR to adopt a modernized total rewards strategy.

"How Enterprise Architecture Can Lead Diversity and Inclusion Efforts for Digital Organizations" — Diversity and inclusion, when combined with a business-outcome-driven enterprise architecture, has positive effects on decision making and innovation. Enterprise architecture and technology innovation leaders should drive diversity and inclusion as a critical dimension to enable competitive advantages.

"Prepare Yourself for the Future of Workforce Management" — The market for workforce management (WFM) is rapidly transforming as existing vendors shift to new platforms and new entrants drive innovations. The changes are a response to workers' expectations of new, consumer-grade apps to support much greater agility and flexibility. Application leaders can use this note to help prepare for the future of WFM.

## Digital Skill Building: How to Grapple With Talent Shortages and Cultivate Digital Dexterity

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Skills and talent are indispensable in achieving strategic digital business transformation. Organizations struggle to find the right people with the right skills. By 2022, nearly 80% of organizational skills will have to be reprioritized or revisited because of digital business transformation (see "Digital Business Redefines Talent Management Applications"). The issue is especially acute for CIOs, who are charged with creating the technology infrastructure that makes digital business possible. Coping with these shortages is one of the most urgent and intractable issues in the future of work.

For IT, the most pressing skills shortages are in AI, conversational interfaces, cybersecurity, data science, user experience design and the Internet of Things.

For organizations as a whole, digital business execution requires a panoply of cognitive abilities and social practices for innovatively leveraging and manipulating media, information and technology.

These are all elements of "digital dexterity," which we define as the ability and desire to use existing and emerging technologies for better business outcomes.

These research reports enable CIOs to shape the future of work for their organization by planning and carrying out strategies for digital skill building, talent acquisition and digital dexterity.

#### *Recommendations:*

- Establish digital dexterity as a top priority to enable readiness for the future of work by investing in training, in developing a learning culture and in diversity.
- Improve digital dexterity for the organization by linking capabilities and practices for "citizen x" (digitally adept non-IT employees such as citizen developers) with specific digital dexterity objectives and metrics.
- Drive and sustain improvements to the organization's data literacy by nurturing "information as a second language" (ISL) and identifying areas where data fluency is weak (see "Fostering Data Literacy and Information as a Second Language: A Gartner Trend Insight Report").

#### Related Research

"Four Ways for CIOs to Cultivate Digital Dexterity in Leadership and the Workforce" — The digital component of most jobs is accelerating rapidly. But there is little concerted effort to help leaders and employees continuously improve their digital skills and competencies, the foundation of what Gartner calls "digital dexterity." CIOs should use this research to increase digital dexterity as an organizationwide competency spanning individuals, teams and the whole workforce.

"The Secret to Digital Transformations Is Analog: Why a Digitally Dexterous Workforce Is the Key" — Technology cycles are accelerating, business models are changing and the nature of work is evolving fast, yet there is little effort to help the workforce navigate and exploit these changes. Application leaders have a unique opportunity to deliver significant business value by helping employees improve their ability and desire to use existing and emerging technology for better business outcomes.

"Boost Resilience and Deliver Digital Dexterity With Cyber Ranges" — Security and risk management leaders responsible for cybersecurity should consider the different use cases for a "cyber range" — a simulation platform that lets organizations train and develop cybersecurity expertise and manage workforce planning. Organizations can foster new skills and competencies to increase organizational resilience and manage the new risks of digital business.

"The AI Leader's First 100 Days" — The success of AI initiatives depends on leaders who successfully define what AI means to the organization, outline the AI vision and execute it to create business value. AI is an emerging area where demand for talent is high and job seekers are scarce. Your first 100 days will define your credentials and likelihood of success as an AI leader focused on machine learning. Use this research to guide your priorities and actions during this critical time.

"Don't Let Human Resources Practices Be the Biggest Obstacle in Moving to Agile" — Moving to agile delivery means abandoning traditional methods of measuring employee performance. Application leaders should collaborate with HR leaders in transforming performance management processes to properly measure and improve versatile agile teams.

"Cultivate Citizen X Practices to Achieve Maximize Digital Dexterity" — In the digital workplace, the most digitally dexterous employees will thrive: citizen developers, integrators, data scientists, and other "citizen X" practitioners who augment IT. Application leaders must cultivate talent, encourage practices and promote enabling technologies to optimize citizen X's digital dexterity.

"Digital Business Requires a New Mindset, Not Just New Technology" — Digital business investments in technologies and tools are likely to fail without a corresponding investment in changing the organization's culture. This change requires a change in mindset — the core beliefs that frame attitudes and behaviors that influence the technology decisions underpinning a digital business. This note guides application leaders in developing the right mindset for themselves and their teams.

"Digital Business Success Requires App Dev Teams With These Culture and Mindset Traits" — Building and maintaining a high-quality app portfolio with an engaging user experience (UX) is really hard work. Application leaders must help foster a company culture that will attract and retain high-performing developers whose values and mindsets align with those of the organization.

"Citizen Development Is Fundamental to Digital Transformation" — Application development outside of IT control continues to expand as digital transformation accelerates. An effective partnership between application leaders and business leaders is essential to achieve positive results and avoid negative consequences as a context for citizen development emerges.

"Maverick\* Research: Cognitive Enhancement Drugs Are Changing Your Business" — Competitive and social pressures are pushing knowledge workers, including IT professionals, to experiment with cognitive enhancement drugs. CIOs in the vanguard will be the first impacted and must take an early leadership position. (Maverick research exposes unconventional thinking and advice.)

"How Digital Businesses Attract and Retain the Best App Development Talent" — Attracting and retaining great developers means engaging them through an organizational culture that prizes innovation and gives room for internal entrepreneurship ("intrapreneurship"). Application leaders should use this research to facilitate the needed culture change in three areas to spur the growth of high-performing development teams.

## Related Priorities

Table 1. Related Priorities

Priority	Focus
<a href="#">Planning, Selecting and Deploying Unified Communications and Collaboration</a>	This initiative concerns premises- and cloud-based unified communications and collaboration (UCC) solutions, which enable individuals, teams and customers to interact via relevant, convenient methods.
<a href="#">Mobile, Endpoint and Wearable Computing Strategies</a>	This initiative enables IT leaders to create the endpoint computing environment components of a digital workplace that supports organizations' transition to digital business.
<a href="#">Transforming Human Capital Management</a>	Human capital management technologies support enterprise efforts to recruit, deploy, develop and manage talent. Gartner's 2018 research will guide your HCM technology investments and methods of use.
<a href="#">Analytics and BI Strategies</a>	The analytics and BI strategies initiative focuses on the strategies, practices, technologies and products needed to support a variety of users across different types of business problems.
<a href="#">Office 365, G Suite or Other Cloud Office Initiatives</a>	This initiative concerns how to evaluate, execute, manage and increase the value of moving collaboration and communication tools to a cloud office system such as Office 365 or G Suite.

Source: Gartner

## Gartner Analysts Supporting This Trend

Helen Poitevin, Richard Hunter, Matt Cain, Adam Preset.

## Related Resources

### Webinars

[The Future of Work and Talent: Culture, Diversity, Technology](#)

[Top Five Myths of Innovation](#)

[Digital Business Impact on Leadership, Talent, Organizations and Culture](#)

[Understand and Exploit AI for Digital Workplace Success](#)

### Articles

["5 Places You Didn't Think to Look for Digital Talent"](#)

"6 Ways the Workplace Will Change in the Next 10 Years"

"How CIOs Can Prepare for the Future of Work"

"Lessons From Artificial Intelligence Pioneers"

## Gartner Recommended Reading

*Some documents may not be available as part of your current Gartner subscription.*

"Future of Work Scenarios 2035: How Will Leaders Manage a Majority-Bot Workforce?"

"Future of Work Scenarios 2035: 'Bots Can't Drive'"

"Future of Work Scenarios 2035: 'Minibot Proliferation'"

"Future of Work Scenarios 2035: 'I'd Rather Have a Bot Do It'"

"Future of Work Scenarios 2035: 'Bots Go Bad'"

### Evidence

<sup>1</sup> In the World Economic Forum's 2016 report, "[The Future of Jobs](#)," 44% of global business and HR executives cited "changing work environments and flexible working arrangements" as the biggest demographic and socioeconomic driver of change across industries.

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