



Tech Talent Ecosystems
Technology Transformation



Abstract

Organizations are struggling under the complexity and waste of duplicative solutions that are slowing innovation and productivity. Transforming technology talent should enable the whole organization to navigate the influx of new tools, capabilities, and disruptors. To do so, a strong Tech Talent Ecosystem founded on mission-based teams that are empowered to look both internally and externally and act strategically is an imperative.

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Introduction

Looking across organizations today, the role of technology talent is rapidly changing, with increasing overlap of roles and responsibilities between Technology and the Business. As Larry Quinlan, the Deloitte US CIO recently said, “the evolving role of technology has reshaped demands on the CIO, calling for the type of skills... gained in the market developing technology solutions and building businesses.”ⁱ On one extreme, the COO of a multi-billion-dollar healthcare organization asked aloud why they shouldn’t consider outsourcing their entire technology organization – a clear gap in understanding the value technology leaders can offer business leaders. On the other extreme, “a growing number of organizations are also proactively pursuing novel competitive advantages by joining forces with existing and new ecosystem partners... [recognizing that] the traditional process of strategy development is too infrequent and labor-intensive to enable strategists to sense and seize opportunities as they emerge.”ⁱⁱ Technology leaders have an opportunity to rethink their talent in ways that will help deliver across new platforms and reduce operational costs across the enterprise.

Organizations are struggling to compete with new market entrants due to the complexity and waste that comes from maintaining and repairing yesterday’s core solution investments, along with duplicative products and solutions that are slowing innovation and productivity. Although the demands on the CIO are evolving, their ability to meet the challenges of the future are often thwarted by technical debt. Shifting from an operational role focused on risk reduction and cost efficiencies to achieve operational excellence to a strategic one focused on value creation to help grow the business requires the entire technology talent strategy to be reimagined.



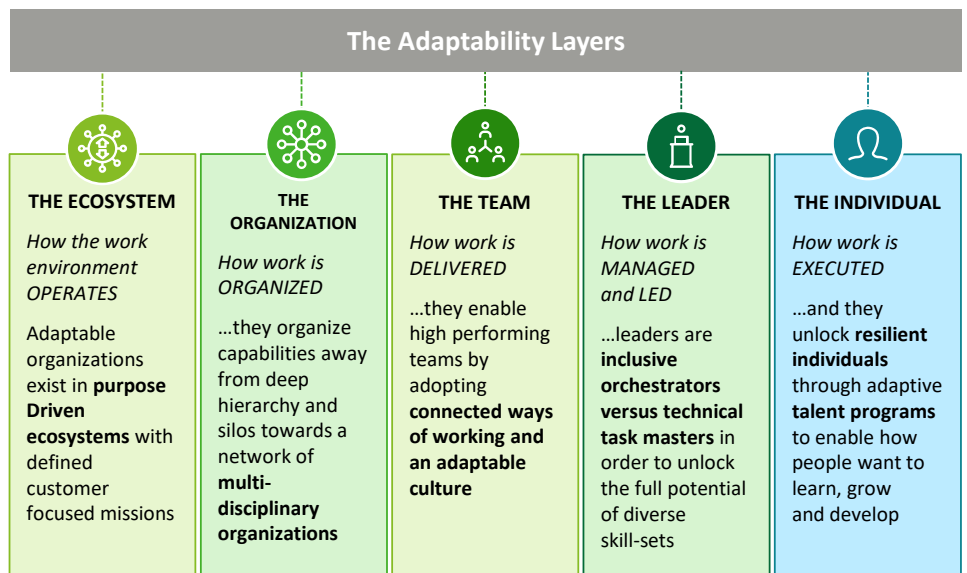
For example, during the last technology revolution, implementing large scale Enterprise Resource Planning tools was the focus, often coupled with outsourcing core responsibilities to vendors. The current technology revolution, however, is focused on revenue growth, an enhanced customer experience, and predictive insights, which is less compatible with contractual, vendor-managed functions. Overreliance on vendors has rendered some technology organizations ineffective and unable to adapt and utilize new capabilities and tools. Avoiding that outcome requires repositioning technology talent to predict disruption and translate business requirements into agile solutions. Re-architecting work to capture the benefits of the full talent continuum in tandem with robotic process automation and machine learning to remove transactional tasks will enable the workforce to provide value without losing necessary control over executing on the organization’s mission and expected outcomes.

Effectively managing the Tech Talent Ecosystem is key to helping CIOs structure the redefinition of technology to enable business growth and create value in the midst of disruption.

What is a Tech Talent Ecosystem?

As the highest level structural element of Deloitte’s Adaptable Organization framework,ⁱⁱⁱ the talent ecosystem is the internal and external space in which the technology organization operates. Effectively managing this ecosystem enables organizations to weather disruption, such as new market entrants, shifts in corporate strategy, government regulation, and, as became clear in 2020, social justice movements and global health catastrophes. CIOs are realizing the significance of these implications and their impact; more and more we are seeing a “shift in approaches of preparedness from planning for likely, incremental events to anticipating unlikely, high impact events and considering multiple possible scenarios”^{iv}. Greater investment in talent is needed for technology teams to be ready for the flexibility and foresight future success will require.

Although 87% of respondents to a recent global management survey consider their workforce to encompass more than their employees,^v an integrated approach to talent management has been elusive. Consider this all-too-common scenario: “Responsibility for internal employees rests with HR, while procurement and other departments orchestrate external workers... one organization required an accurate worker count to address pay continuity, absenteeism, technology requirements, and benefits needs for its newly remote workforce [but] managers quickly realized that it was impossible to calculate the total number of workers... no one had a full view of everyone contributing to the company... A workforce ecosystem approach can address this issue by raising governance to a higher organizational level



such as a board of directors and the C-suite... the most forward thinking companies are adopting workforce ecosystems that implement cross-functional systems including HR, supply chain/procurement, business unit leaders, finance, and others.”^{vi} By taking an ecosystem view of the talent organization, CIOs can avoid the pitfalls of disconnected, less productive workers and look holistically at talent opportunities. Making the shift to a future-ready ecosystem that harnesses the power of the talent continuum requires three things:

1. **Manage Your Workforce Strategy:** Develop adaptable talent across the full talent continuum to more easily navigate disruptions
2. **Empower Your Workforce:** Construct flexible and mission-focused teams focused on a single objective. Talent has clear decision rights, strong accountability, and little distraction from matrixed structures
3. **Redefine How You Measure Productivity:** Rethink productivity measures based on the outcomes people achieve and their wellbeing

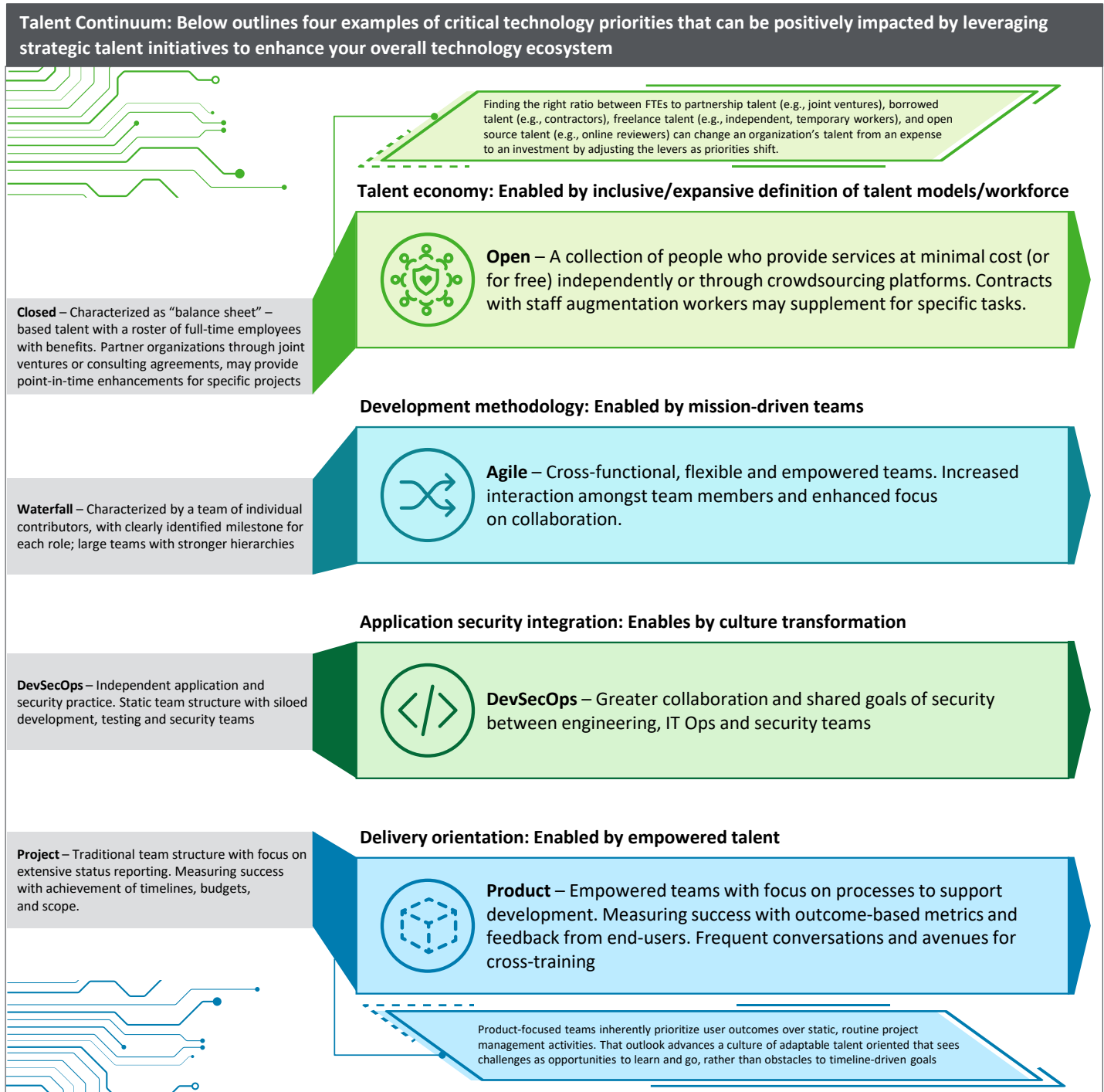
Manage Your Workforce Strategy

The primary element of success in getting ahead of disruption is cultivating nimble talent that can respond to challenges in unconventional ways by maximizing the use of the talent continuum. Technology organizations need talent that goes “off-script” and stretches beyond typical activities to achieve a business goal, enabling the whole organization to better predict change while also helping the business deploy solutions in an agile way. A major part of that empowerment is through the strategic deployment of Super teams^{vii}, groups of people and intelligent machines working together to free up human capacity. The examples in exhibit (B) describe the critical elements of technology talent in their ecosystem.

Technology leaders are refocusing talent on more agile, product-based delivery to support the shift from on-prem infrastructure management to cloud-based data and access administration. Helping technology talent adapt to that transformational change and putting them in a position to drive business value cannot be done through learning alone (experiential learning and through Tech Talent Ecosystem peers), even by the most motivated teams. A comprehensive understanding of the environment that supports the changing Tech Talent Ecosystem is necessary.



A key tenet of the strategy is the concept of DevSecOps which has an integrated set of capabilities and end-to-end services throughout the product development and operations lifecycle. Its enabler, agile development, moves testing and security considerations earlier in the development cycle. Together, DevSecOps and agile development are changing the way teams need to operate in the future, with a focus on products rather than projects.^{viii} Technology leaders who successfully leverage these concepts are finding that delivering value in an agile environment is predicated on a talent experience that is clearly connected to mission-driven, empowered complex teams which can advise the business and also operate technology. The key to sustaining that talent experience is via the Ecosystem which holistically views technology talent and the internal structures and processes which support it.



In addition to getting the right workforce mix, a key component of the workforce strategy that future-looking technology leaders are creating includes organizational cultures. CIOs that rely on every layer of the organization to leverage external communities, partnerships, and alliances gain greater visibility into the needs and behaviors of their customers. Empowered individuals working together, hand-in-hand with robotic process automation and machine learning, changes the fundamental expectation of your workforce – a culture of individual empowerment and interconnectedness that prevents people from focusing on only their cog, and instead promotes teamwork by aligning to the long-term goals of the organization. This helps to unite teams with different missions to support one purpose and frees them from rote tasks that reduce capacity for big picture thinking.^{ix}



In anticipation of the increasing role for automation to unburden talent from transactional activities around reporting and metrics tracking, resilient organizations are evolving to support workers with more time to embrace the complex nature of work outcomes and focus humans on tasks that require human activity. Over 60% of respondents to Deloitte’s 2019 Global Human Capital Trends survey said that by using technology to free up workers’ time, they strengthen their technology organization by redeploying talent to develop insights about what’s coming next in the world outside the organization itself^x. At a leading national healthcare organization, they are automating nurse scheduling to increase the nurse experience, allowing for greater individual control over schedules, while also removing the costs of back-end administrative tasks required. Rethinking how humans and technologies interact is key to unlocking true talent productivity.

Consider the Tech Talent Ecosystem the “extended enterprise” of the 21st century: in the 1990s during the second wave of Enterprise Resource Planning (ERP) tool implementations, vendors from outside the four walls of a company would provide essential test data for a project, extending an organization by system interface. In 2021, the Tech Talent Ecosystem - and the talent that supports it - is vastly more complex and reliant on an interdependent web of technical and nontechnical *extensions* beyond its traditional sphere of influence. The current, converging expectations of digital, cyber, and cloud solutions make it nearly impossible for teams to be successful on their own when the ecosystem consists of subcontractors, partners, crowdsources code, and multiple technology vendors. Think about the Adaptable Organization (above) as the new extended enterprise. Instead of a linear relationship between vendors and an organization to accelerate technical development, we know that a broader view of an organization’s tech talent can yield results by leveraging skills inside and outside their four walls without the costs traditionally associated with sourcing contracts.

Empower your Workforce

Organizations are finding that the primary obstacle to productivity is complexity. Complexity drives frustration, burnout, and waste. The ability to simplify work and focus teams on a singular outcome is a far cry from the traditional, matrixed organization model. Talent cannot focus effectively if they are given unclear direction created by multiple bosses and competing priorities. Clarity of purpose, rooted in the outcome each team needs to achieve as it advances the overall vision, is an essential ingredient in an empowered workforce.

As part of the move to virtual work due to COVID-19, a professional services firm reduced the competing demands on its employees by eliminating required cross-functional activity from performance evaluations. They found that it reduced burnout and attrition while improving the quality of the delivery of core responsibilities by empowering workers to define what, how, where, and with whom work gets done.

Empowerment is a bidirectional agreement and requires trust and accountability. The steps below are critical considerations for both leaders and employees.



For leaders, creating an environment that proactively manages your Tech Talent Ecosystem means addressing legacy technology culture and hierarchical talent structures. Creating an organizational culture that makes time for organic behaviors such as learning and exploration, co-creation is critical for leaders to drive the shift from rigidity to flexibility. Looking more closely at how successful organizations responded to COVID-19, we see the most successful among them operationalized plans that blended organizational, financial, and societal obligations. For technology leaders, that means collaborating closely with customer-facing teams and empowering their workforce to make decisions quickly, with wellbeing in mind.








For employees, working in a Tech Talent Ecosystem effectively means focusing less on honing specific skills and more on becoming a translator who understands today's work and anticipates how that work may change tomorrow. Each team member needs to understand how their role connects with others to meet the needs of the customer. Employees should be able to answer questions including:

- What outcome am I responsible for achieving?
- How can I provide value towards achieving that outcome in the shortest amount of time?
- Who are the partners that will help me increase that value?

To make this collaboration and empowerment possible, both technology leaders and employees must actively create this new organization. Leaders must provide the space for learning and growth, balancing between experiential learning and leveraging the opportunity to learn from others within the Tech Talent Ecosystem. As highlighted in "Maximizing the Impact of Technology Investments in the New Normal,"^{xi} some of the tools in a CIO's toolkit include implementing a results framework (e.g., Objectives and Key Results (OKRs)) to focus more on people and outcomes than on processes and tools. They are also creating innovation funds to "give teams the autonomy and flexibility needed to experiment, prototype, and 'fail fast.'" Teams that are successful in the face of disruption are not only mission-driven with strong, clear decision rights, but also feel that their 'humanness' is valued and leveraged.

Redefine How You Measure Productivity

Organizations are increasingly recognizing that for the Tech Talent Ecosystem to function at the strategic ecosystem level down to the individual level, personal wellbeing is critical. A symbiotic “give and take” is a good way to think about it; the relationship between work and rest is not inverse: work does not need to deplete us by definition. Work can, in fact, energize us, if we look to outcomes versus measures like project plan deadlines met, help desk tickets answered in record time, and so on. Humans are at their best when they leverage their innate capabilities.

 Capability^{xii}	 High Level Behaviors
 Curiosity Derived from the realization that additional information, resources, and perspectives beyond what is visible, and the desire to discover them	Asking questions about context Asking questions about approach Asking questions that broaden horizons
 Imagination Naturally expands one’s outlook beyond what is known and what exists today; benefits include looking for future problems and opportunities, identifying new value or impact, and applying existing tools to new problems	Identifying existing problems and opportunities that haven’t been seen before Seeing problems and opportunities that haven’t yet occurred Identifying new forms of impact/value
 Creativity Innovating new approaches; using resources in expected ways; emphasis on framing and designing new approaches, from rethinking the staging order to using new technologies	Identifying new approaches Framing/designing new approaches Evolving new approaches for greater impact
 Empathy Understanding and considering others’ feelings, experiences, needs and aspirations	Providing insights into the needs and feelings of others Anticipating the needs and feelings of others Advocating on behalf of others
 Courage Acting despite uncertainty or opposition	Acknowledging what you don’t know Asking for help Acting despite risk of failure

Cross-functional mission-based teams^{xiii} are focused on one outcome rather than on multiple quantitative measures of success (i.e., retweets, views, customers served, etc.). The combination of quantitative and qualitative measures of success tied to the ultimate purpose of the business simplifies operations and reduces silos.

Reengineering teams around outcomes requires increased focus on five key capabilities: curiosity, imagination, creativity, empathy, and courage as outlined in exhibit (C) to the right.

These capabilities allow technology organizations to continuously adapt in a world where specific skills are obsolete at ever-faster rates. They transcend traditional skills and allow employees to flourish in less predictable environments in which they may be working on very different outcomes than their peers with the same skills. Regularly connecting work to these capabilities can enhance access to and retention of talent because daily work becomes less routine and more satisfying and meaningful.

The 2020 Global Technology Leadership Study^{xiv} reveals CIOs increasingly seek talent with soft skills, including emotional intelligence, cognitive flexibility, and creativity^{xv}. As business functions hire more technically savvy staff and technology talent co-creates with business partners, interpersonal skills and business knowledge become increasingly critical. Traditional tech skills remain essential to deliver value but are readily available in the talent market and continue to be a key target for automation.

By focusing on productivity that drives outcomes, a Tech Talent Ecosystem should be centered on outcomes that promote work effectiveness and efficiency and workforce empowerment. Some example metrics for an technology organization might include the number or frequency of product outages, calendar data to show deep working time, number of meetings scheduled outside of agreed upon norms, email traffic showing the number of approval levels required to make a decision, or number of hours of computer downtime. It's important to note that many, if not all, of these performance measurements should be automated, as discussed in the previous "Empower Your Workforce" section.



If any of these measures are significantly out of balance, they should be addressed through wellbeing and culture-building, not traditional carrot and stick management. The need to tackle wellbeing head on has become increasingly necessary over the last year when, in spite of the pandemic-induced free time many have written about, "having a strong work ethic without a correspondingly strong rest ethic that we take every bit as seriously is what's burning us out." As Jen Fisher goes on to say in "[Why We Need to Create a Rest Ethic and Get Rid of the Badge of Busy](#),"^{xvi} the flexibility to take time off (PTO or otherwise) contributes to productivity, rather than diminishes it. It is also part of cultivating capabilities that give us the energy to be curious, imaginative, creative, empathetic, and courageous to achieve exceptional work outcomes.

One client recently redefined productivity around three questions: how effectively does your team work together, how quickly can one complete tasks, and how empowered do you feel to set your own norms? Virtual work during the pandemic has enabled increased effectiveness and empowerment for some workers fortunate enough to work from home but it has not necessarily come with an increase in wellbeing. Part of the issue is that a holistic view of what makes a Tech Talent Ecosystem function is not being addressed. Traditional talent hierarchies often measure people by hours worked, meaning that some of the increased productivity we see in remote work is simply due to working more hours, not because of having more time to be creative or curious.

Actions To Take Today

The business needs a redefinition of the way technology provides value. To do so, CIOs need to better invest in talent to proactively manage the increasing speed of disruption and act as strategic advisors to help companies manage the influx of new technologies. This requires taking a comprehensive look at the Tech Talent Ecosystem's component parts: workforce strategy, workforce composition (including evaluating the role of vendors), and productivity measurement:

- **Every Team Member Should Know the Outcome They are Responsible for Delivering:** Deploy agile methods to increase flexibility and move away from traditional on-time, on-budget metrics. This creates space for your workforce to better manage their time and achieve the results that matter.
- **Start Small and Keep Improving:** Changing culture is difficult, so it is important to start small and amplify success. Too often technology leaders rely on HR to drive culture and employee experience but it is up to each individual team to define, reinforce and enable those values. One financial services client starts every presentation with a single slide that restates their organizational mission and vision—it sounds simple but it permeates the tone of the conversation and guides decision-making at every level.
- **Cultivate Skills and Capabilities Across the Organization:** Employees need to understand the connection between their work and the broader organization. Help teams develop core capabilities and learn how they fit to achieve the overall organizational objectives. By framing opportunities around learning and growth, technology leaders can help employees visualize the future state and bring them along the journey.



- ⁱ Deloitte, "[Deloitte US CIO on the Evolving technology Landscape.](#)" *The Wall Street Journal*, Dow Jones & Company, 11 Dec. 2020.
- ⁱⁱ Deloitte, "[AI Business Strategy: Strategy, Engineered.](#)" *Tech Trends 2021*, Deloitte Insights, Jan. 2021.
- ⁱⁱⁱ Deloitte, "[The Adaptable Organization.](#)", 2018.
- ^{iv} Deloitte, "[2021 Global Human Capital Trends: The Social Enterprise in a World Disrupted.](#)" *Deloitte Insights*, 10 Dec. 2020.
- ^v Altman, Elizabeth J., et al., "[Workforce Ecosystems.](#)" *Deloitte Insights*, Deloitte, 11 June 2021.
- ^{vi} Altman, Elizabeth J., et al., "[The Future of Work Is Through Workforce Ecosystems.](#)" *MIT Sloan Management Review*, *MIT Sloan Management Review* & Deloitte Insights, 14 Jan. 2021.
- ^{vii} Deloitte, "[HC Trends 2021: Superteams.](#)" *Deloitte Insights*, 10 December 2020.
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- ^x Deloitte, "[HC Trends 2019: From Jobs to Superjobs.](#)" *Deloitte Insights*, 11 April 2019.
- ^{xi} Kark, Khalid, et al., "[Maximizing the Impact of Technology Investments in the New Normal.](#)" *Deloitte Insights*, Deloitte, 21 June 2021.
- ^{xii} Hagel, John, et al., "[Skills Change, but Capabilities Endure.](#)" *Deloitte Insights*, July 2020.
- ^{xiii} Guest, Matthew, and Jessica Cole, "[Mission-Based Teams: Reconstructing Businesses as an Evolving Network of Teams and Outcomes.](#)" *Deloitte United Kingdom*, Deloitte, 9 Oct. 2020.
- ^{xiv} Kark et al., "[Findings from the 2020 Global Technology Leadership Study.](#)"
- ^{xv} Kark et al., "[The product shift: Rewiring the Organization to Maximize Business Value.](#)" 16 November 2020.
- ^{xvi} Fisher, Jen, "[Why We Need to Create a Rest Ethic and Get Rid of the Badge of Busy.](#)" *Thrive Global*, Deloitte, 3 Feb. 2021.



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