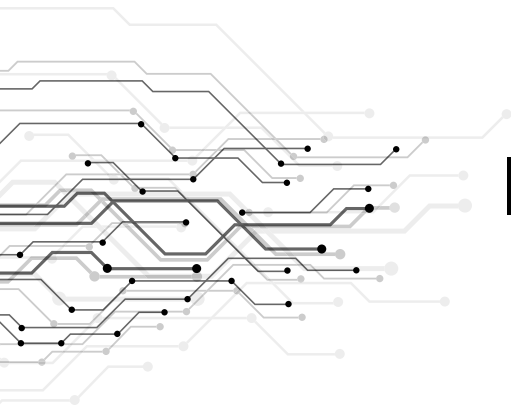


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Introduction

Humans first began dreaming about the possibility of robots or mechanical servants as far back as Homer in the Iliad. It's not known whether Leonardo da Vinci actually tried to build the mechanical knight he sketched around 1495, but across cultures and throughout time, there have been many accounts of humanity's desire to create robotic versions of ourselves, whether purely as entertainment or for more practical reasons.

Certainly, over recent decades, robots have eased our burden in performing mundane and/or dangerous tasks—from the spelling and grammar checkers in word processing programs to military drones. Some of these applications are universally beneficial, others less so—and much of it has a tendency to inspire a wide range of emotions, from curiosity to fear. Especially about our future career prospects. Are we making ourselves irrelevant? Just some of us? How quickly? Who decides?

This uncertainty is natural. We're only human, after all.

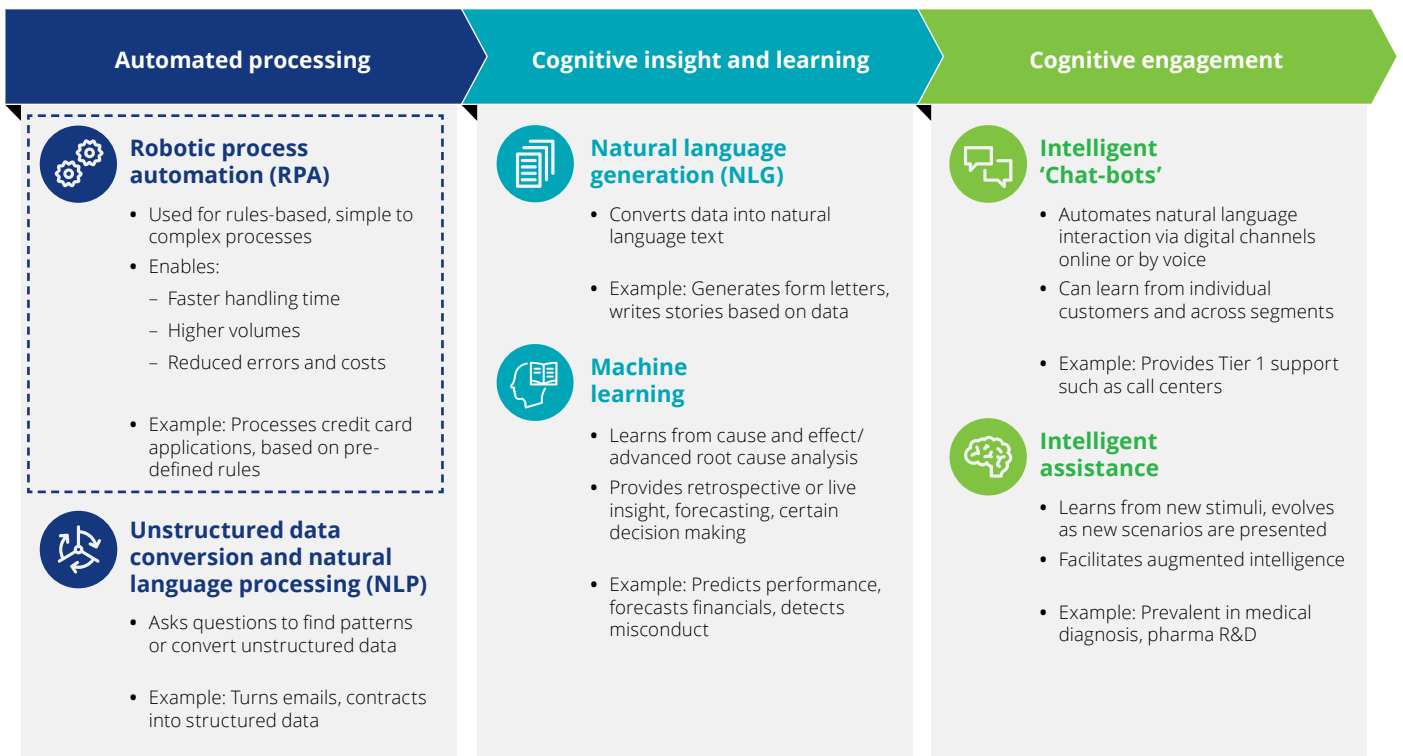
And now, with accelerating technological advancement, it's clear we are on the cusp of a new age—of machine learning, machine doing, and ultimately true artificial intelligence (AI). It's a pivotal point in history that presents both opportunities and challenges. And arguably, the most significant economic and social impact will be on labor—how work gets done and by whom. Because the future of work is hardly just about technology: it's about leveraging exponential technologies to empower our workforce and accelerate business growth, as we enter the Fourth Industrial Revolution. In this new era, the shift from basic digitization to innovation based on combinations of technologies is forcing companies to re-examine how they do business.¹

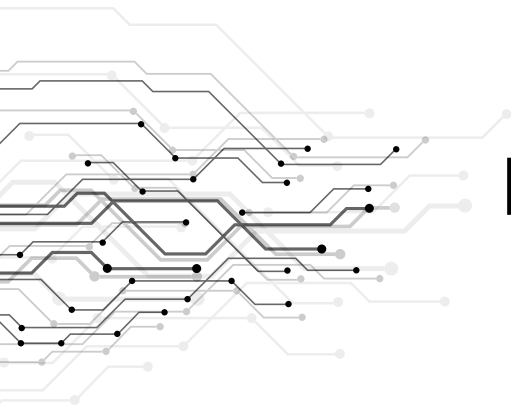
What does this mean? Concerning labor, at least, companies that fail to develop an ecosystem of both human and virtual (e.g., robotic) resources will be at risk of missing efficiency and engagement opportunities that can lead to stagnation—or, worse, obsolescence. The workforce of the Fourth Industrial Revolution, in other words, will not be restricted to permanent employees supplemented by contractors. Organizations will increasingly depend on crowdsourcing, freelancers, and the full spectrum of automation, beginning with robotic process automation (RPA) (see Figure 1).

In fact, we believe the importance of automation is only going to increase for the organizations of the future, given automation's promise of better service, cost containment or reduction, reduced errors, and so on. Not everyone is as optimistic, of course, and some even caution that we are entering an era of ever-widening gaps in equality and rising social tensions. We think that outcome is possible, but unlikely—as long as we continue to have the courage to think before we act and to make decisions based on a balanced view, to adequately prepare our workers, and to future-proof our organizations.

In summary, RPA can be used as a tool to increase engagement and satisfaction, and is an enabler of ongoing transformation that touches upon many dimensions in the workforce. It therefore needs to be connected to a broader talent strategy, and companies will need to change their operating models to maximize value. Simply put, the benefits of RPA easily transcend headcount and cost reduction.

Figure 1. Robotic and cognitive technologies





Rise of the machines

Far from being the popular conception of a walking, talking “auto-bot,” RPA is simply a software solution that mimics a variety of rules-based, repeatable processes that don’t require real-time creativity or judgment. RPA can perform the rules-based, “swivel chair” processes without interruption, quicker than humans can, with reduced chances for both error and fraud. In short, by “taking the robot out of the human,” people are freed up to take on higher-value work.

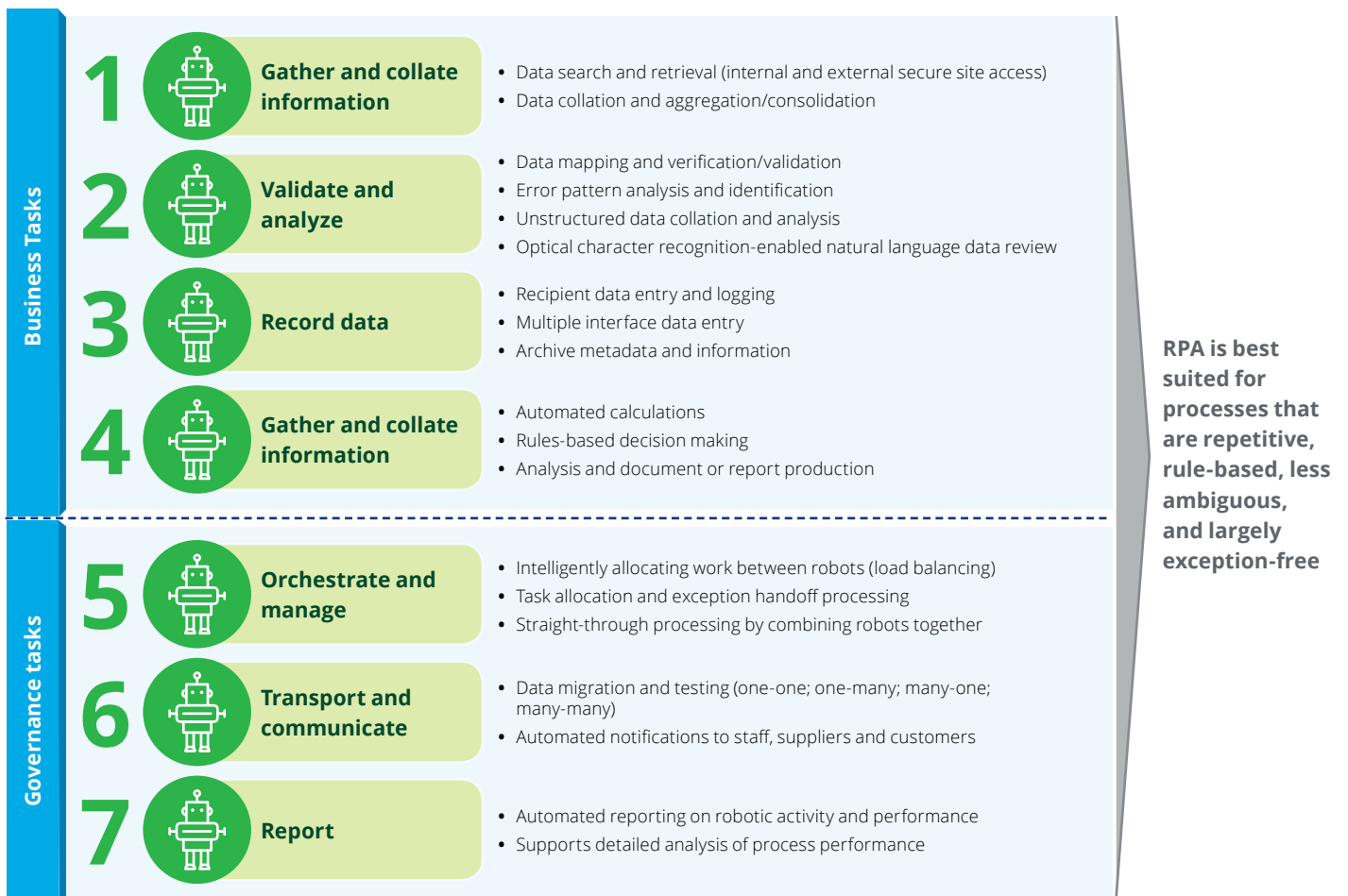
History has shown that automation tends to create more jobs than it destroys,² as human skills become more critical in monitoring, decision making, interpreting, and delivering insight and service to customers. A classic example is the introduction of ATMs. Prior to implementation, there was outcry over potential job losses as machines would be replacing bank workers. The outcome, however, was the opposite: hiring actually increased in the average banking organization. In essence, RPA empowers people to increase their individual value, connect more fully with the purpose and strategy of their organizations, and to reach markets that limitations on capacity and mobility had previously kept out of reach. Although RPA is expected to make certain jobs effectively redundant (e.g., office and administrative support, IT maintenance, and clerical corporate finance), it will also create new ones and enable sales and service professionals to spend more time with clients.

Many studies have predicted the impact that RPA will have on employment. One recent study predicted that RPA will replace 16 percent of jobs by 2025.³ However, many organizations believe that average attrition of 7.3 percent,⁴ coupled with retiring Boomers⁵ and the expansion of the “gig economy,” in which people choose freelance work over full-time employment, will balance most of these reductions. While some argue that RPA poses a significant threat to lower-paid workers, it could actually lead to stronger employee satisfaction and engagement. Early findings from a recent RPA deployment implemented in the credit card fraud and chargebacks department of a financial services company hinted a significant increase in their employees’ satisfaction, though research is still underway to show how this truly impacts employees. Some studies suggest that as many as 50 percent of the activities performed by a given employee are mundane, administrative, manual-labor-intensive tasks that are less than satisfying. These are an ideal fit for RPA (see Figure 2). In summary, we believe that while some people will be negatively impacted, just as ATM implementation affected branches in the last century, there will be different jobs in the future that leverage different skills.

Still, while 32 percent of companies are prepared for RPA’s technology implications, only 12 percent are prepared for the people implications⁶. Our own research backs this up: only 17 percent of respondents to Deloitte’s 2017 Global Human Capital Trends survey say they are ready to handle a workforce consisting of people, robots, and AI working side by side⁷. As many as 60-70 percent of transformations fail due to poor change management.⁸

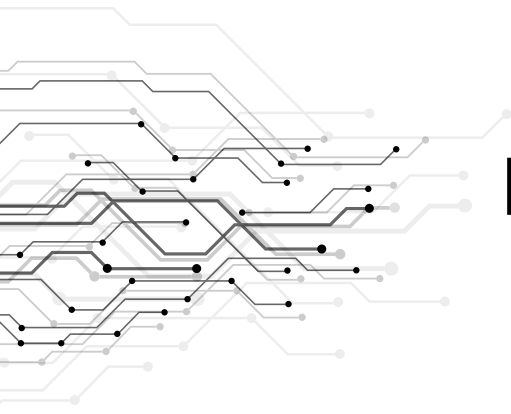
While 32 percent of companies are prepared for RPA’s technology implications, only 12 percent are prepared for the people implications.

Figure 2: Some processes are ideally suited to RPA



In order to best integrate RPA into your broader strategic objectives, it is important to consider RPA as part of ongoing change across many dimensions in the workforce.

In short: Understanding how RPA will affect your existing workforce, and coupling delivery with appropriate change management and organizational design are critical steps for organizations looking to make the leap.



Planning for deployment

RPA represents an opportunity to accelerate business strategy and maximize both growth and organizational performance through the automation of select processes and the redeployment and/or removal of excess capacity. As with any large-scale business transformation, the implementation of RPA should be considered holistically, covering business strategy, people strategy, process, and technology (see Appendix for details). Implementation is also very agile, so these elements should be managed in parallel to drive synchronicity.

However, unlike more traditional transformations, RPA does come with a couple of unique and significant nuances, namely (1) the iterative nature and speed at which the technology is deployed and (2) the extent to which the technology is like a human, with the usual needs for orientation, training, and so on.

Indeed, when preparing for an RPA implementation of any magnitude, it's crucial to develop an iterative change management approach right from the start. Regardless of the scale of the implementation, employees will fear disruption and job loss. You have to be clear on process and intent, even in the absence of definitive answers, so that changes happening on the ground make sense to all employees. This includes gaining leadership alignment on business case and vision, establishing a clear governance structure, understanding stakeholders and the ways in which they support or resist the transformation, considering the impacts on culture and organization design, and crafting a top-down communications and engagement plan. RPA is still relatively new to most stakeholders; therefore, key messages explaining what it is and what it is not are crucial both to building trust in the organization—and to the success of the transformation.

RPA deployment, moreover, can span across departments, leading to ambiguity on program ownership. Leadership alignment and readiness for the shift is therefore important to address early on. And because the program will require a center of expertise and centralized governance model, with clear accountabilities and strong executive sponsorship, finance, IT, risk, compliance, HR (including labor relations when organized labor is a factor), procurement (if implications to outsourcing contracts are anticipated), and executive leadership should all be at the table.

In order to ensure alignment between your automation strategy and your broader corporate strategy, leadership needs to be fully aligned not just on business case financials, but also on workforce considerations.

In short: RPA requires changes to the broader talent management strategy and operating model to maximize value and realize the benefits.

Getting ready: Your RPA deployment checklist

When preparing to deploy RPA, be sure to do the following:



Check for leadership alignment at the top. Not just theoretical alignment, either, but actual agreement on accountabilities around how employees will be handled, the goals of the implementation (quantified by business case), timelines, and resources.



Identify change champions. These are leaders who will be the face of the transformation and therefore will either make it or break it. Empowering these change champions on process selection, organizational design, key messages, and talent can prevent last minute scrambles and potential risks down the road.



Clearly articulate alignment between automation strategy and corporate strategy. While disruption and transition is rarely easy, when employees understand how the initiative links to overall strategy (e.g., better service, cost cutting, revenue enhancement) and how they will benefit, they will be more inclined to move quickly along the change curve.



Orient your workforce to the future-state. Employees will have to know how to operate in the new environment. Thinking through a training strategy that focuses on continuous improvement and includes both technical training (e.g., change management, program management, automation management) and leadership development (e.g., genuinely “human” skills like empathy and persuasion) will help the organization manage through and sustain the change.



Be clear about staff transition, re-deployment, and/or release. In other words, you need to know what you’re going to tell Sally when she asks if she will lose her job. It’s not an easy question, and it shouldn’t be. After all, we’ve established that people are not robots and have powerful feelings. But if leaders are aligned, HR is engaged, and a change management plan is in the works from the outset, organizations will be much better prepared to answer the question, even if definitive answers are not immediately available.

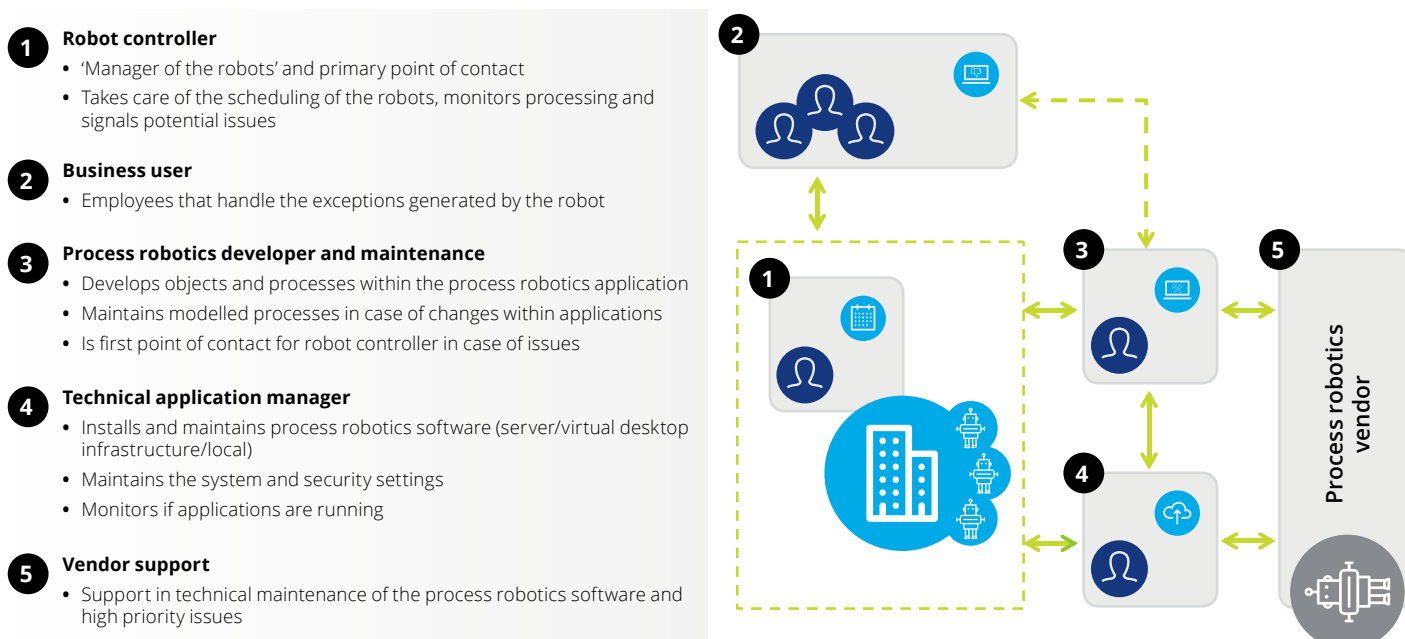
Activating your new worker ecosystem

Of course, creating “agile” organizations has long been a focus of business leaders, with 92 percent wanting to bring people closer to customers, increase the speed of innovation, and improve employee empowerment and engagement. RPA can be a powerful enabler of these objectives⁹; however, organizational design must be considered alongside implementation.

In our recent global survey of human resource professionals, 65 percent of respondents saw RPA as an operating model play, enabling the introduction of a “digital workforce” that predominantly handles purely transactional activities¹⁰. The implementation of RPA at scale will require new organizational structures (e.g., centralized and decentralized automation teams and accountabilities, disbanding or displacement of certain functions, etc.) as well as adaptation to existing ones (e.g., changes in department scope and team agility).

And while some functions and roles will change significantly or disappear altogether, new roles will emerge, such as “robot controller” to manage scheduling and process monitoring and “process robotics developer” to maintain modelled processes when applications change and to be the robot controller’s first point of contact in the case of problems or other issues. (See more details and examples in Figure 3.)

Figure 3. New roles and responsibilities with RPA



Since RPA will shift the way people work through defined processes, organizational structures and roles will need to be designed with clear accountabilities and outcomes in mind. But they must also remain sufficiently nimble to pivot and respond to rapid change. Deloitte did a study with MIT in 2016 and found that 70 percent of business leaders believe they will need a new mix of talent and skills in the future.¹¹ With RPA, some of the things your people have been doing will no longer be required of them, whereas some new things will be—and they'll tend to be things that humans can still do better than machines. Skills like perception and manipulation, creativity, social interaction, and social intelligence will become more and more critical both for leaders and for employees, as these are the skills most difficult to automate.¹² Emerging roles, moreover, will require a whole new set of capabilities and connection points: any leader, for instance, leading a team that includes RPA would need to have some level of technical literacy to be able to manage the virtual workforce.

Headcount may also change, depending on how automation continues to be deployed and how teams evolve. A workforce plan that links strategy and work to workforce impacts across physical proximity, automation level, talent category, and economic impact (i.e., impact to organization's financials, resulting from changes to workforce composition) will be the basis of a revised talent strategy. In this way, the plan will bridge the gap between vision, strategy, and people to govern the number and capabilities of workers, the timing of transition, and new talent acquisition.

New worker ecosystem deployment in practice

The number and timing of full-time employee (FTE) transitions will vary significantly depending not just on organizational objectives, but also local laws and regulations as well as existing contracts.

A Deloitte team worked with a financial institution in Europe to automate 15 processes over six months. The processes were carefully selected across the institution to ensure no complete team would be impacted. In one department where three selected processes were handled by five FTEs, work remaining after RPA was reallocated to three of those five. Meanwhile, the fourth was redeployed to another department, and the fifth was redeployed on a strategic project within the same department. In another case, implementation of 1,300 robots saw a migration of 260+ processes over 16 months, with a significant headcount reduction.

In order to realize the full value of RPA, it's important that you take advantage of the other key benefits — such as improved data quality and reduction of errors — which empower people to work with greater efficiency and results.

In short: The benefits of RPA extend beyond cost reduction through headcount savings and provide a long-term business advantage by moving people up the value chain.

Future-proofing the workforce: Your activation checklist

According to the Deloitte 2017 Global Human Capital Trends report, 50 percent of leaders surveyed rate their company as weak at aligning competency frameworks to account for new robotics and AI requirements, as well as at redeploying employees replaced by these technologies and reskilling others to complement the new tools. Here are some things to consider:



Re-envision corporate culture. A move to RPA will likely require a shift in working norms to enable effective use of virtual teams, increase trust in technology, and the embracing of innovation and analytics. This can be impossible to achieve without the right leadership interventions and sponsorship. Too often, organizational resistance sets in.



Identify and close skills gaps. Based on the outputs of workforce planning, organizations will need to reconcile the capabilities they have with the ones they'll need, and then devise a plan to develop and/or acquire the latter. An end-to-end review of the organization's talent lifecycle, from recruitment through to transition, will be required.



Manage change deliberately. It's critical that employees understand any and all impacts to their roles and how RPA will contribute to the bigger picture. All employees surrounding the RPA implementation (and conceivably then some) will likely deal with one or the other of a role change, role elimination, or capability change. A targeted transition plan (and a development plan for everyone else) that addresses each of these types of change at the individual and department levels will mitigate unnecessary confusion and enable a quicker arrival at "steady state." It's also important to plan for knowledge transfer and management, particularly from those who will be leaving the organization.



Sustaining the benefits

Once RPA has been deployed and workers have been transitioned to their new roles or out of the organization, nimble progression to a steady state is critical to reaping the benefits of the business case. This involves quickly gathering feedback and ensuring continual improvement. Because of the iterative and phased approach to process selection and deployment, change will be constant.

As the virtual workforce stabilizes and the newly defined worker ecosystem becomes the new normal, it's important to continue to assess progress versus cultural vision, planning for interventions to close any gaps, and refining all aspects of the organization's talent strategy and processes to be inclusive of all types of workers. For example, recruitment practices may need to be updated to source and hire talent that will thrive in the new culture. Learning and development may need to change to ensure employees and leaders are prepared to work in hybrid teams and use their skills in more cross-functional ways. Performance management and recognition may need to be adjusted to ensure leaders and employees are incentivized to work *with* the virtual workforce, instead of around it.

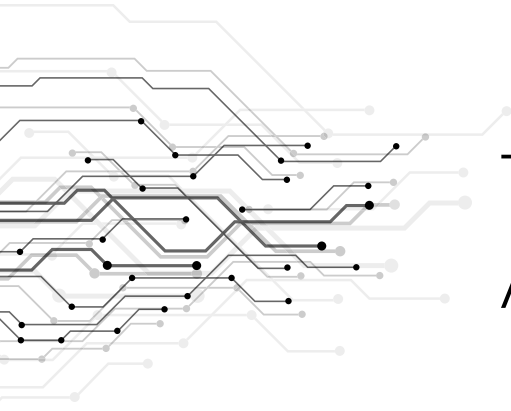
The fact is that HR processes, programs, systems, and capabilities will quickly become irrelevant if they are not adapted to the changing workplace. Shifting workforce planning and optimization from temporary projects or specialized centers of expertise to core skills will be important as RPA and other forms of automation become embedded in the ecosystem. HR may also become an "employer" of RPA for processes that are repetitive and highly manual (e.g., on-boarding, severance calculations, service delivery). Skills requirements will therefore shift not only to enable HR to better support the new ecosystem but to function as RPA leaders as well. This will all require evaluating HR capabilities (demand and supply) and re-tooling and re-training the HR function.

Finally, with this evolution of work, employee engagement will be redefined. Workers will continue to be employees, yes, but they'll also be contractors, crowds, and automated solutions. The line between talent brand and customer brand is vanishing, and the imperative to create a common engagement platform for all constituents touching the organization is only going to grow.

Performance management and recognition may need to be adjusted to ensure leaders and employees are incentivized to work with the virtual workforce, instead of around it.

In order to sustain the benefits of your new worker ecosystem, it's important to remember that the journey doesn't end when your first bots are in production.

In short: Talent strategies and processes will need to continuously evolve to adapt to the ever-changing workforce.



The future is here. Are you ready?

A new world of work is upon us, but it's not as scary as you think: Boomers are continuing to retire and millennials—"digital natives" naturally comfortable with rapidly evolving technology—want variety of work with purpose.¹³ For this generation and those to follow, taking the robot out of the human will ultimately lead to higher engagement, performance, and innovation.

Companies that are not already considering RPA and other forms of automation as a component of a broader worker ecosystem will miss significant opportunities for efficiency, quality enhancement, risk mitigation, innovation, and, ultimately, growth.

As we embark on this transformation, there will be significant change in the way teams are structured, how roles are defined, and the kinds of skills and capabilities required to execute and manage it all. While training and education will foster more generalists who can work across functions and disciplines, we can't be blind to the fact that not all employees will benefit. It's therefore critical that organizations get ahead of the workplace and talent implications brought about by automation with robust change management, organization, and people strategies that minimize negative disruption and ensure the best possible outcomes.

After all, we're only human.

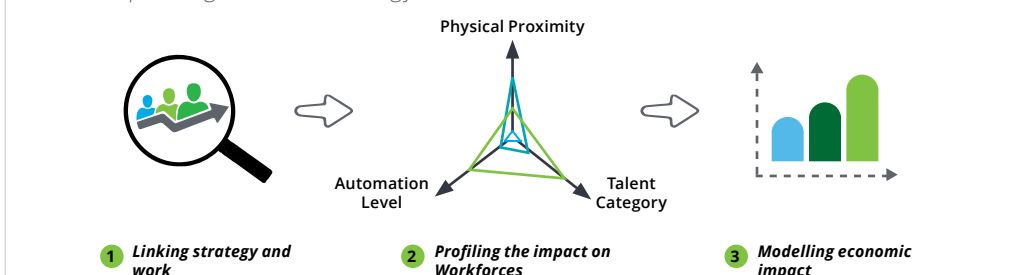


Appendix

Key pillars and considerations for creating a virtual workforce



Workforce planning and talent strategy





End notes

1. Schwab, Klaus. "The Fourth Industrial Revolution: what it means, how to respond." World Economic Forum January 14, 2016. <https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/>.
2. The Economist. "Automation and anxiety: Will smarter machines cause mass unemployment?" June 25, 2016. <http://www.economist.com/news/special-report/21700758-will-smarter-machines-cause-mass-unemployment-automation-and-anxiety>.
3. "The future of white-collar work: Sharing your cubicle with robots." Forrester. June 2016. <https://www.forrester.com/report/The+Future+Of+WhiteCollar+Work+Sharing+Your+Cubicle+With+Robots/-/E-RES132404>
4. The Conference Board of Canada. "HR Q&A" <http://www.conferenceboard.ca/topics/humanresource/resources/questions.aspx>.
5. "Generations in Canada," Statistics Canada. December 2015. http://www12.statcan.gc.ca/census-recensement/2011/as-sa/98-311-x/98-311-x2011003_2-eng.cfm
6. Forrester. The Future of White Collar Work by Craig Le Clair and J.P. Gownder June 22, 2016
7. Human Capital Trends 2017, Deloitte Global. <https://dupress.deloitte.com/dup-us-en/focus/human-capital-trends/2017/future-workforce-changing-nature-of-work.html?id=gx:2el:3dc:dup3826:awa:cons:hct17>
8. Ashkenas, Ron. "Change Management Needs to Change." Harvard Business Review. April 16, 2013. <https://hbr.org/2013/04/change-management-needs-to-cha>.
9. Deloitte Global Human Capital Trends 2016, Organizational design: The rise of teams. <https://dupress.deloitte.com/dup-us-en/focus/human-capital-trends/2016/organizational-models-network-of-teams.html>
10. "The robots are here: Meet your digital workforce." Deloitte UK. <https://www2.deloitte.com/uk/en/pages/innovation/articles/robots-are-here-digital-workforce.html>
11. "Aligning the organization for its digital future." Report from Deloitte Digital and MIT Sloan Management Review. future. July 2016. <http://sloanreview.mit.edu/projects/aligning-for-digital-future/>
12. Carl Benedikt Frey and Michael A. Osborne. "The Future of Employment: How Susceptible Are Jobs to Computerisation?" University of Oxford, Sept. 17, 2013.
13. Vesty, Lauren. "Millenials want purpose over paychecks. So why can't we find it at work?" The Guardian. Sept. 14, 2016. <https://www.theguardian.com/sustainable-business/2016/sep/14/millennials-work-purpose-linkedin-survey>.



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