



# Ready, set, fail?

**Avoiding setbacks  
in the intelligent  
automation race**

Findings from KPMG research study

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Most intelligent automation (IA)  
projects underway or currently  
in the pipeline will fail.



# Overview

**While enterprises have high expectations of the impact of IA, they are not yet ready to implement it from the top down and at scale. Until companies recognize two critical issues, they will struggle to get an adequate return on investment. First, IA investment decisions need to be C-level strategy imperatives, and second, IA is about business and operating model transformation, not simply technology deployment.**

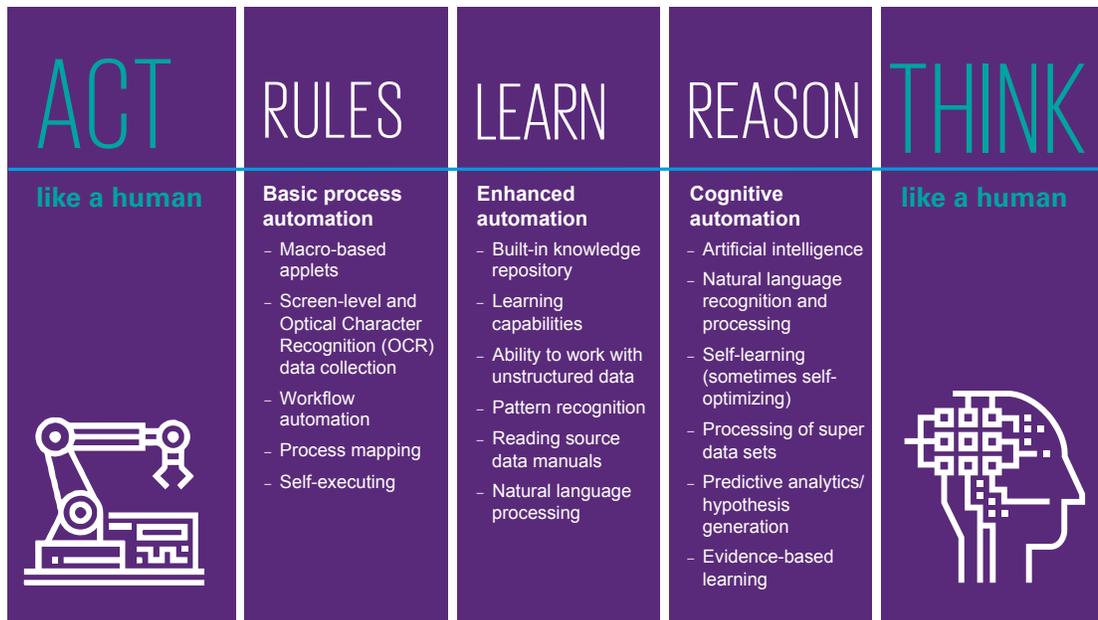
It is not clear whether most companies understand that IA is about changing business processes, and then restructuring the organization around those new processes that are now driven by technologies that did not exist before. This means shifting the business and operating model from one of people supported by technology to one of technology supported by people. It's a digital-first operating model.

KPMG recently undertook a study to understand the reasons for and implications of deploying IA and what it takes to scale. KPMG professionals interviewed executives from numerous industries and geographies worldwide about their experiences with deployment and their perspectives on the future. Most emphasized that IA is poised to digitally transform their companies and industries and profoundly impact their employees' roles.

At the same time, executives highlighted several challenges. In addition to grappling with the extraordinary pace of change, they are faced with understanding and choosing among hundreds of technology options, the need for effective data and analytics, prioritizing automation focus, and defining their future workforce. KPMG research considered three main areas of IA—basic or robotic process automation (RPA), enhanced automation, and cognitive automation.

These results underscore the need to not only act quickly but to also plan deployments strategically with scale in mind. Most companies' executives acknowledged they are still experimenting only with RPA, applied to legacy applications and processes. With such a narrow focus and a bottom-up approach, they have not positioned themselves to transform their business and operating models so they can become and remain competitive with digital-first companies.

## The technology spectrum ranges from task automation to knowledge augmentation



Source: KPMG LLP, 2018

**“ Many traditional businesses with legacy approaches risk falling behind digital-first companies if they stay with the status quo. It takes a comprehensive transformation of business and operating models to compete in their own market at the level at which a Tesla or Amazon do in theirs. ”**

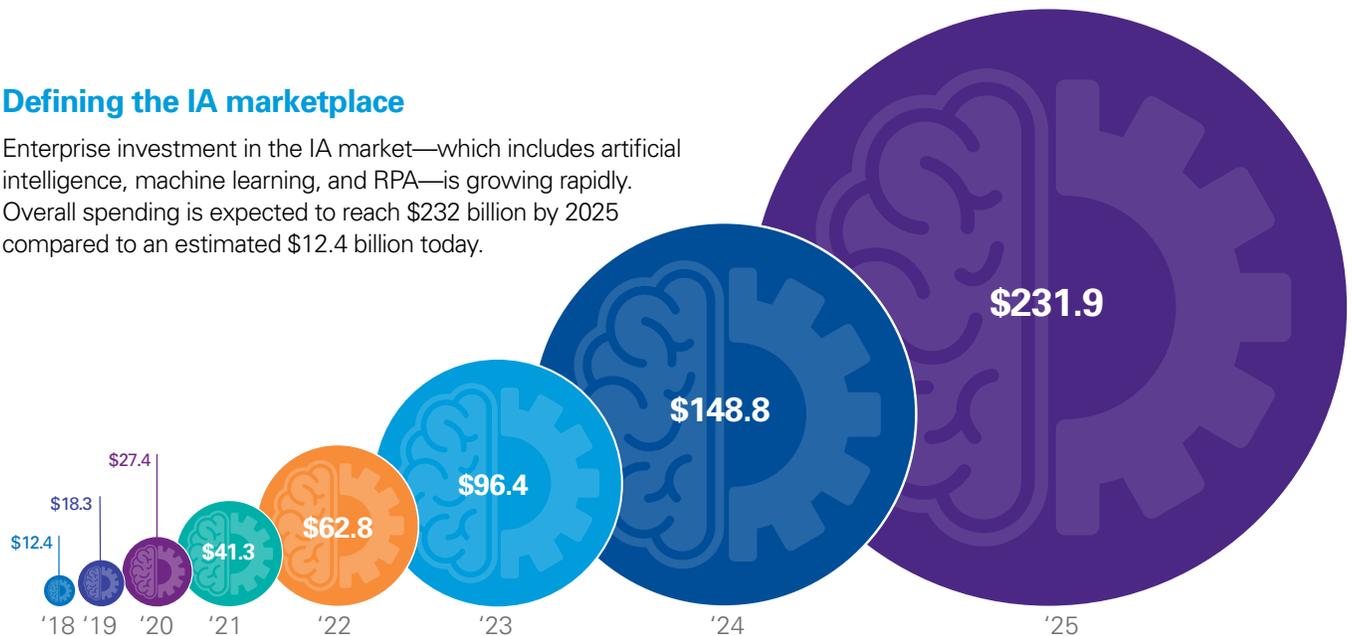
– Cliff Justice, KPMG Partner, Innovation & Enterprise Solutions, and leader of Cognitive Automation initiatives

As IA use accelerates across industries and organizations worldwide, digital-first companies already have a distinct competitive advantage. Not all companies can emulate Amazon’s one-click experience with its complexity and checks-and-balances built into a digital supply chain. Companies can, however, close these gaps if they act quickly, understand the urgency, and define and execute a comprehensive IA strategy—one that not only looks at technology, but also at business and operating model opportunities and constraints.

This report summarizes KPMG’s research into how IA is currently impacting business and operating models. It provides recommendations for how companies can plan for and implement an IA strategy that will help enable them to compete with digital-first competitors and thrive in a digitally driven world.

## Defining the IA marketplace

Enterprise investment in the IA market—which includes artificial intelligence, machine learning, and RPA—is growing rapidly. Overall spending is expected to reach \$232 billion by 2025 compared to an estimated \$12.4 billion today.



Source: KPMG LLP, 2018

# Findings

**High expectations but little readiness** to deploy IA overall, and deficient change management and governance capabilities

**Opportunities across all functional areas** and all sectors, though certain industries characterized as being more aggressive with adopting new technologies

**IA is part of overall digital transformation** but lack of in-house talent and organizational focus may hinder initiatives

**Investment spending increases are significant** over the next five years but may not prove enough to support deployment expectations

**Culture change is paramount to success** with few expectations of job losses due to IA

Source: KPMG LLP, 2018

Respondents demonstrated high hopes but little readiness to drive IA deployment at scale and use it as a vehicle for organizational transformation. Overall, they:

- Predicted significant investment increases in automation platforms over the next three to five years
- Emphasized the importance of IA implementation in the context of an overall digital transformation within companies that want to compete successfully
- Indicated opportunities across all functional areas and industry sectors
- Emphasized the need to combine technological capacity building, structural workforce adjustment, and cultural change as vital for success

## Keep up and lose out

**The study indicates liability companies that successfully embrace emerging IA technologies will be able to differentiate themselves to compete successfully with digitally advanced enterprises.**

Organizations that can power up IA efforts can radically improve operations, transform their business models, and become long-term winners. But piecemeal efforts that focus mainly on cutting the cost of legacy processes and reducing headcount—with, for example, siloed efforts to automate payroll, invoice processing and customer service inquiries—will not move the needle in this new world.

Indeed, companies recognize that what made a high performer in the 20th century is fundamentally different from what is needed for competitive advantage in the 21st century. Enterprises have new tools and processes available that did not exist. Although there are challenges, growing evidence shows that taking a strategic approach to IA by focusing early on creating new business and operating models can yield 5X to 10X dividends.

The survey underscores that most organizations are still in the early stages of knowing where to prioritize deployment, how to measure true benefits, and how to address talent and change management issues.

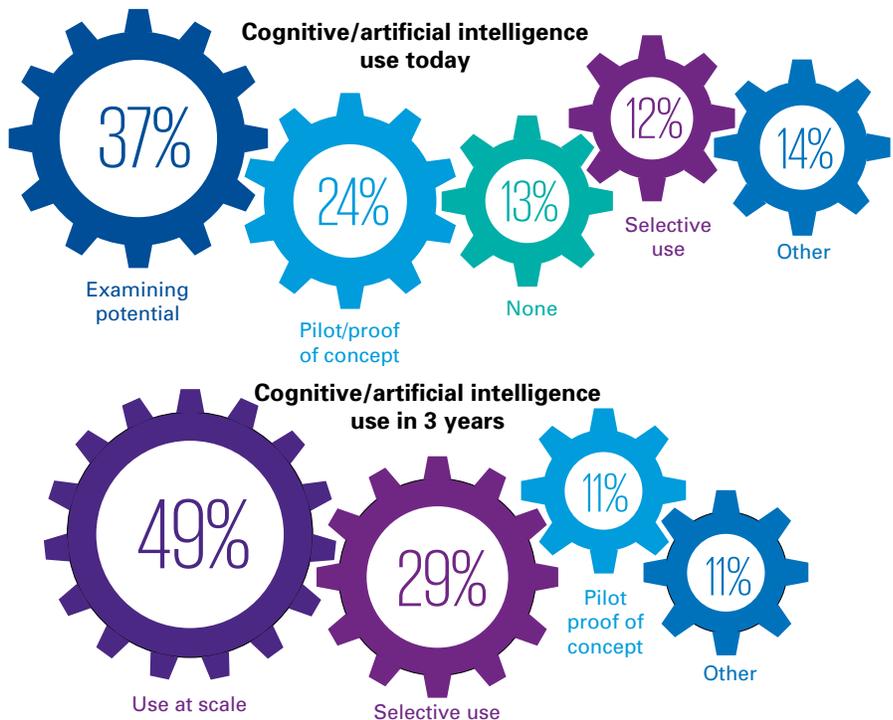
**Growing evidence shows that taking a strategic approach to IA by focusing early on creating new business models can yield 5X–10X dividends**

## High expectations but little readiness

**KPMG research concludes that companies recognize IA's potential value but are moving slowly toward using artificial intelligence technologies and are still in the early stages of deploying software robots.**

The results nevertheless reveal broad plans to adopt IA. Nearly two-thirds of respondents indicate plans to fully implement RPA within three years. Another 18 percent plan selective use. As for cognitive automation, nearly half noted intentions to use these approaches at scale within 3 years, while 29 percent indicated selective reliance on cognitive automation capabilities. Some 10 percent said they would launch pilots and proof of concept projects.

### Cognitive use today and in three years



Source: KPMG LLP, 2018

“The surprising part of the survey is not that managers’ expectations are high for IA but rather that their organizations’ readiness to implement it is low.”

– Don Ryan, KPMG Director, Advisory, Market Research, and survey architect



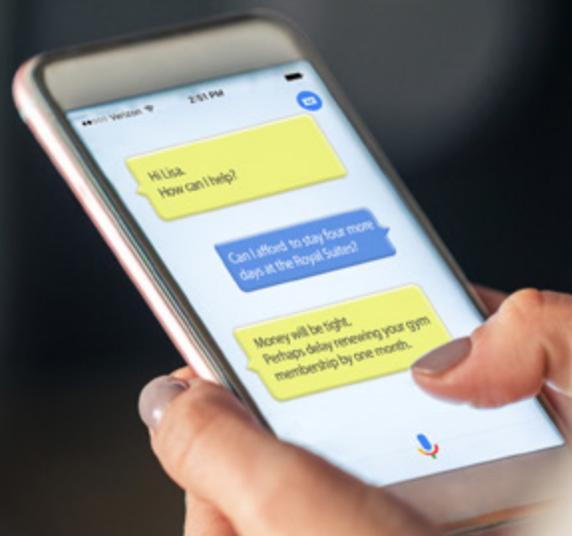
Case Study

## Virtual assistants make customer service even easier

Regulation and competition drive this industry, pushing banks to provide a better customer experience—especially with a growing millennial population. This bank jumped ahead early by developing a virtual assistant. We helped the bank assess its technology capabilities and limitations. Then we designed and implemented a virtual assistant framework that could meet its customers' current needs for common transactions like scheduling payments and future capabilities to proactively receive financial guidance.

As a significant part of the bank's commitment to customer service and digital transformation, when launched, customers can access this voice and text-driven virtual assistant platform 24x7 to get an even better banking experience.

We can deliver what your customers want. ●



## Lack of vision, lack of commitment

**As they seek to accelerate their IA efforts, companies' executives encounter a variety of challenges across their organizations.** Nearly two-thirds pointed to lack of in-house talent while about half had struggled to define clear goals and objectives for IA deployment and accountability for results and return on investment (ROI). Another third indicated that management concerns over IA's impact on employees were the biggest obstacle.

About one-quarter of respondents cited hurdles including lack of senior management vision, nonstandard or incomplete end-to-end processes, and uncertainty about the required level of financial investment. Lack of senior management commitment is an especially important concern because if IA is to be used to drive transformation, success depends on senior management sponsorship.

The findings also indicated businesses need a better understanding of how IA will supplement their existing business. They also need more experience in managing and reconfiguring operational models to yield benefits. Most recognize that implementation takes a team effort, broad expertise, and dedicated resources with new skills. Fragmented and siloed approaches won't cut it.

## Big investments

**Respondents indicated plans to steadily increase direct and indirect investment in IA solutions of all types over the next three years.** A higher percentage (32) green-lighted more funding for RPA—perhaps an indication that robotics software is perceived as the low-hanging fruit on a continuum of technologies. As many as 40 percent earmarked cognitive computing, which is also referred to as artificial intelligence, for investment increases of at least 20 percent within three years. Data and analytics solutions are important corollary technologies that support artificial intelligence implementation. One-quarter of respondents plan investment increases of 20 percent or more for data and analytics, further supporting IA overall.

Survey participants also expect a strong increase in the use of IA technologies across most business functions. About one-third intend to increase IA over the next three years by about 30 percent, in areas ranging from finance and accounting to customer engagement. Accordingly, one-third said that information technology processes, finance/accounting and customer engagement will be impacted significantly by technology automation rollouts.



**33%** of respondents indicated that management concerns over IA's impact on employees was the biggest obstacle.

## Fragmented focus = missed opportunities

**Companies err in focusing solely on automating legacy processes and applications, which only improves efficiency incrementally and may have little impact on enterprise effectiveness and overall competitiveness.**

Done strategically, leveraging IA yields important advantages: improved customer service, empowered employees, better innovation, lowered costs, faster projects, and upgraded, standardized, and higher-quality operations. But to realize these transformational benefits, any IA effort should be part of a strategy aligned with overarching business goals and pursued across the organization. Individual departments can, and do, automate specific rules-based processes. Focusing exclusively on these types of efforts can waste time and resources that companies could better spend on an investment that will help the organization thrive and compete going forward.

## A boundary-less organization?

**An overriding issue is the need to grapple with the organizational impact automation will have on operating models.** IA and other types of digital transformation will erode boundaries separating human resources, finance, procurement, and other functions, resulting in fewer isolated or vertical functions. A “boundary-less” enterprise—one that is able to build on institutional knowledge—will ultimately produce a more customer-focused business model, drawing on data and applying analytics across the organization. Speedier decision making, lower costs, and improved user and customer experiences will be the outcome.

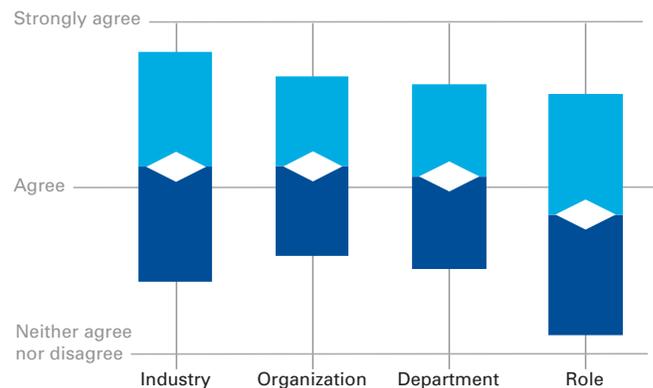
Companies will be challenged to disrupt themselves at the pace that IA moves. In today’s large, global enterprises, fundamentally challenging business models while transforming underlying operating models may prove too much. As a result of IA adoption, there will be clear winners and losers. We can draw lessons from companies that do this well—especially digitally native companies that do not have to deal with legacy debt and organizational inertia to overcome change. Every industry should look left and right at other industries to challenge themselves. Disruption will come from nontraditional competitors. What we see in fintech is a great example. Companies should consider alternative investment strategies, such as divestitures and alliances, to disrupt against themselves, isolating innovation from day-to-day running of the business.

How people work and how they can increase their “value add” will also change. As organizations automate business processes, leaders will no longer need to assign people to specific tasks within a functional domain where work is highly sequential. Reductions in corporate overhead will result, and transaction centers will be centralized. Senior-level individuals will be needed to lead centers of excellence within domains that are responsible for high-level quality assurance checks and strategy development. Internet-native and highly digital-focused companies are outpacing others in reaping the benefits of such efforts right now.

When KPMG asked a series of questions on the impact of IA on productivity and organization, respondents strongly agreed:

- Centers of excellence with critical intellectual property that will serve the entire enterprise will emerge.
- Cognitive technologies will augment across all aspects of the front, middle, and back-office processes.
- Siloed organizations will make way for boundary-less or functionless organizations, incorporating blended team and roles.

## Over the next three years, IA will transform many functions

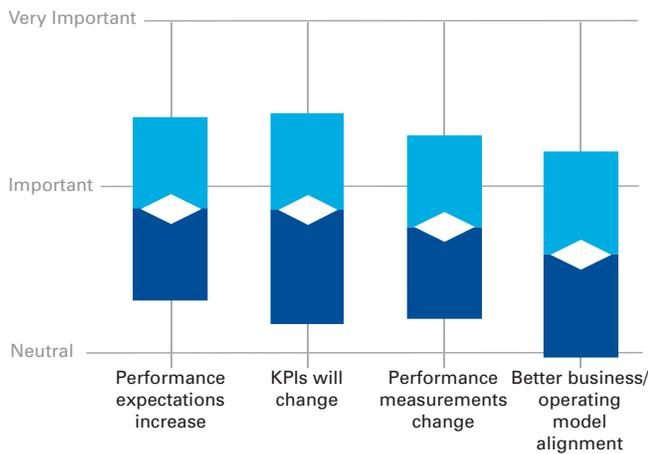


Talent management is one area that will see considerable change. IA should allow companies to become less reliant on offshoring labor for repetitive or rules-based tasks. Smaller teams will manage IA platforms and business initiatives with much more impact. The ultimate result could actually be happier employees, who would be freed from routine tasks and encouraged to take on more strategic, significant work. The KPMG research indicates these role changes can drive much higher performance expectations and outcome-oriented KPIs to measure success.

## The “HAL” in the next cube

**The people side of the business is of great concern when companies think about automating tasks that had been performed manually.** Most of those surveyed strongly agree that automation will transform industry, company, and individual roles. Survey respondents estimated that, by the turn of the next decade, about one-third of all organizational jobs will be impacted by the advent of intelligent software that can replace repetitive manual labor.

### Ensure metrics reflect company values



Interestingly, respondents downplayed the importance of cutting headcount and cost savings—though dealing with issues such as job losses and reworked roles will present challenges both internally and externally. Still, IA will invariably lead to cost reduction and will rarely move forward unless the business defines and achieves related return on investment.

In this dynamic workforce of the future, making sure every business process works is paramount. Companies will need centers of excellence to upgrade skill levels, develop technically adept employees, and recruit specialized talents in artificial intelligence and IA. The range of skills needed does vary: for implementing RPA, organizations mainly need business analysts and operational personnel to configure and govern the robots. For cognitive automation, more advanced skills will be required, such as data and cognitive scientists and software engineers.

Ultimately, humans and virtual robots will work side-by-side—and, in many cases, robots will be able to analyze data and answer questions, often faster and better than humans. What robots won't be able to do is define the questions and problems that need to be solved, iterate deeply on the responses, and prioritize solutions. These developments nonetheless represent a sea change in the nature of work as well as the skills and talents people will need to be successful.

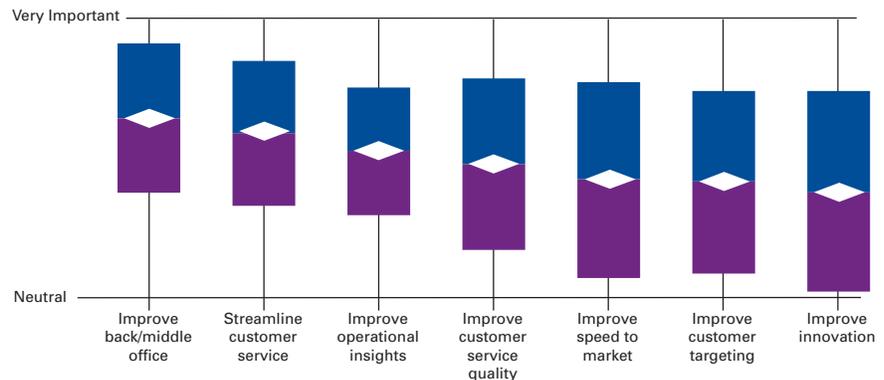


## Look well beyond the back office

The research also considered which areas of business operations companies are prioritizing for automation. Executives pointed to the importance of upgrading back-office tasks and streamlining customer service. Gaining additional customer insights with data and analytics and speeding up product introductions were also rated as important. Better customer targeting and increased innovation were highlighted to a comparatively lesser degree. These findings underline respondents' current focus on back-office processes, but experience shows companies also taking steps to deploy IA across front-office, customer-focused functions, and seeing value in these efforts.

Ultimately, developing technologies will also enable companies to accelerate their automation journeys. As one example, a vendor that provides robotics as a service has introduced "Bot Farm," a service enabling companies to scale a bot on-demand in the cloud. Expect more forward-looking technologies to emerge as IA becomes mainstream.

### Deployment drivers



#### Case Study

### Insurer picks up speed with digital project

An insurance company sought to lower costs, improve quality and efficiency, and free up employees to work with customers on more complex issues. In early 2017, the company launched an IA project to identify and automate administrative tasks in one business line.

The team started by prioritizing a preliminary list of processes for automation, based on cost and benefit. Within four months, the insurer had a road map for automating core business processes, such as customer requests and back-office tasks. Judgments were made over whether to revise the process, automate it, or turn to a managed service. The team selected the automation software platform Blue Prism as the primary technology provider. While management started slowly, the company's executives are fully engaged and picking up speed on the automation journey, changing organizationally and digitizing data on the front end to drive further improvement. ●

# A transformational framework

## KPMG defines four stages of IA progress

**KPMG has developed a framework that describes an organization’s progress with IA along a continuum, from static to incremental, disruptive, and transformative.**

At the center of the framework is the organization’s progress with transforming its core operating models and using new and existing data as part of an overall IA design and implementation.

The survey suggests that most companies fall within static and incremental/fragmented categories. All-digital and born-in-cloud companies are already in the disruptive and transformative stages, but these companies make up a very small percentage of all major enterprises today. Differing stages of adoption can exist across an organization—transformative in one part of the business and incremental in another, sometimes depending on industry issues. Large

banks and insurance companies offer real-world examples of this splintered approach. Financial services and retail lead all others in diving into disruptive and transformative approaches.

In any organization, each of these four stages may exist simultaneously across specific parts of the enterprise, with the adoption of IA resembling a financial portfolio of different opportunities with specific returns. A portfolio approach can be effective as long as it emanates from a defined strategy, with organizations carefully considering where to push for more aggressive, transformational efforts based on that strategy. Understanding that organizations’ experiences will vary when adopting IA should help guide decision makers in narrowing the gaps between expectations and realities.

### Transforming with IA

	Legacy data	New/Reconfigured data
New business models and processes	 <b>Disruptive</b> <ul style="list-style-type: none"> <li>Productivity pop through harnessing existing data</li> <li>Tight operating model and processes drive more efficiencies/better effectiveness</li> <li>Focus on efficiency over innovation</li> <li>Functional in scope leading to enterprise scale</li> </ul> <p><b>Productivity pop – 3-5x benefit</b></p>	 <b>Transformative</b> <ul style="list-style-type: none"> <li>Expanding business frontier using new models that overcome legacy constraints</li> <li>Core operations enabling new forms of customer engagement and insight</li> <li>Self-learning ecosystems of continuous data and operations innovation</li> </ul> <p><b>Productivity + innovation – 10x benefit</b></p>
Legacy business models and processes	 <b>Static</b> <ul style="list-style-type: none"> <li>Loosely coupled islands of efficiencies</li> <li>Fragmented implementation of RPA solutions to replace existing processes using existing data</li> <li>Minor reconfiguration of data or value chain</li> <li>Keeping pace with lagging peers, not moving to the forefront</li> <li>Innovation opportunities missed</li> </ul> <p><b>Limited productivity or innovation – 1-2x benefit</b></p>	 <b>Incremental</b> <ul style="list-style-type: none"> <li>Gain advantage over market peers, lag market leaders</li> <li>Leveraging reconfigured data to extract value from existing business models and processes</li> <li>Fragmented implementation of various IA solutions</li> <li>Generates new information for specific decision making enabling rapid self-service, self-learning systems</li> </ul> <p><b>Innovation pop – 3-5x benefit but narrow scope</b></p>

Source: KPMG LLP, 2018

**“A lot of change has to happen that’s really uncomfortable and sometimes political, and most companies are not prepared for that. Projects implemented from the bottom up are not going to scale because they haven’t been designed to scale. If this isn’t a C-level initiative, then it’s not going to be successful at scale.”**

– Cliff Justice, KPMG Partner, Innovation & Enterprise Solutions, and leader of Cognitive Automation initiatives

### Here's how

How can companies improve their readiness to meet high marketplace expectations for IA? Here are some recommendations:

**1 Recognize that the use of IA is transformative** and built on the use of new machines and data sources. As a result, companies will need entirely new blueprints and architectures for operating models and business models. Such a transformation requires long-term planning with a sequence of steps, starting with prioritizing projects that can realize scale in one to two years. C-level buy-in and sponsorship is critical.

**2 Formulate a comprehensive approach** to automating the service delivery model including centers of expertise, shared services centers, and business partnering, self-service, and outsourcing providers. Approach IA spending holistically across all technology platforms, with linkages between other artificial intelligence applications, as well as with data and analytics. Develop solid business cases to ensure investment value and maintain expectations between deployment promises and investment capability.

**3 Design 2-by-2 structures on automation activities** that show the trade-offs between preserving value and reducing risk compared to those that are creating value and improving product and service quality. Desired outcomes will dictate which technologies and processes to choose and the speed with which to deploy them against specific business objectives.

**4 Consider the "operating model" in all of its forms:** operational and technology infrastructure, organizational structure and governance, and people and culture are all critical to IA deployment, especially its impact on core business processes. Measurement and incentive systems will change to align with operating model disruption.

**5 Think about ways to disrupt business from within** while maintaining uninterrupted business operations. Some companies such as fintechs create different entity structures to help continue to play in their industry and disrupt in a very different way.

At KPMG, we understand that IA is far from simply a technology challenge to be handled in siloes by individual department heads. We are seeing IA's impacts within companies. We are also helping leaders develop and implement the strategies they need to optimize their business and operating models and transform their workforces for a digital world. We know the challenges companies experience when adopting IA because we have been working to transform our own business. We can help you make the most of the opportunities IA provides.

“Companies should consider alternative investment strategies, such as divestitures and alliances, to disrupt against themselves, isolating innovation from day-to-day running of the business.”

– Todd Lohr, KPMG Principal,  
U.S. Intelligent Automation Leader

## An interview with Cliff Justice

Principal, Innovation & Enterprise Solutions, and leader of Cognitive Automation initiatives, KPMG.  
As interviewed by author and journalist Rebecca A. Fannin.

**What stage of development have we reached in the era of IA?** We are at the beginning of a generational change that will unfold very quickly over the next few years. I compare it with the advent of electricity—distributing power and energy through an electrical grid and spinning out innovations such as light bulbs and air conditioning. Artificial intelligence innovations will come from machine intelligence that can read and learn from interacting with humans. It's a massive transformation, and artificial intelligence capabilities are improving exponentially.

**What is the significance of this technology for business innovation strategies?** Every company will have to be a digital-first company or they will be out of business. The relationship between human judgment and machine learning will be the theme for the next generation. Creative areas such as defining problems or figuring out the right questions to ask and architecting solutions will be hard to automate any time soon.

**What business fields will be most impacted?** IA will radically change healthcare, financial services, manufacturing, and transportation business models over the next five years. Organizations need to make this transition, or a start-up in Silicon Valley will eat up their business.

**Who within a corporation should take charge of IA initiatives?**

**Should the CEO lead it?** Given all the disruption, the ability to manage a massive transition is paramount. In many large companies with multiple divisions, the business unit leader will drive a proof of concept that is applicable to their business. In more consolidated organizations, it will be the CEO or a governance body that oversees the transition and looks after the strategic risks, standards, security, and talent issues.

**What are some examples of companies and industries that are leading IA innovation?**

Tesla is a digital-first company that has applied IA to manufacturing cars. Tesla relies on data from computer vision and deep learning to monitor driving and road conditions to continually improve its vehicles. Another example is Boeing, which can use sensors connected to the Net to predict when an engine blade will go down and then repair it before it fails. In investment banking, using contextual language understanding to detect fraud has become very promising.

**Should managers expect immediate savings from automating their workforce?**

If it's not done right, they may be disappointed at what they save on work that is automated. Determining what can be scaled across multiple areas requires some strategic thought and testing of the concept in units that are small enough to succeed with repetitive tasks. Hard decisions have to be made about reshaping workforces and training employees in new skills. There could be downsizing.

**What is the societal impact of automation and artificial intelligence?**

There is a lot of debate about what artificial intelligence means for society, for jobs. We are on the verge of a massive, social and cultural change. Some will see it as good for society while others believe it will result in catastrophe. It will lead to economic abundance in almost everything, but it also has serious ramifications for a variety of tasks and jobs that currently require few skills. As a society, it's important that we address the downside of IA in terms of how it will impact and/or reduce the need for some workers. ●

## Case Study

# KPMG: Getting ahead of the curve

KPMG is fairly far along in adopting IA. The firm's management understood early on that these automated technologies would create major disruptions in the accounting and auditing field for clients in many industries. Indeed, management estimated that these new capabilities eventually could affect up to 30 percent of KPMG's work by augmenting or, in some cases, replacing tasks currently performed by professionals.

KPMG designed several pilot projects to test the impact of IA and to gain advanced insights:

- In Audit, KPMG found that cognitive technologies may enhance quality by generating richer, more detailed information than has been available and lead to continuous refinement of knowledge and analysis.
- In strategic account management, KPMG piloted a project to extract multidimensional insights to serve and better engage with clients. One KPMG application that will go live soon will match client concerns with specific services.
- In Tax, KPMG developed and piloted a cognitive automation platform as an always-learning, cumulative repository of tax knowledge that enhances service delivery with multiple analyses rather than one-off solutions.

As part of these projects, KPMG developed a relationship with IBM Watson in cognitive technology to, for instance, read financial and accounting documents and extrapolate from them.

In another major move, KPMG has formed a cognitive automation lab staffed with a large number of specialists in the fields of artificial intelligence, cognitive technology, computational linguistics, and natural language processing. A second group with hundreds of data analytics scientists focuses on analyzing and solving client problems. ●

## An interview with Dave Brown

Principal, Global Head of Shared Services and Outsourcing Advisory, KPMG  
Interviewed by author and journalist Rebecca A. Fannin.

***With the advent of intelligent automation, many companies are replacing or modifying their outsourcing arrangements. Could you comment on this trend?***

Most of the robotics process automation that is being implemented is replacing work that third parties were doing. Outsourcing firms are now replacing the majority of their workforce with automation to remain competitive. Internally, they are moving up the automation maturity curve to machine learning to provide solutions to clients. Because this is their bread and butter, they need to accelerate and build out automation platforms that are where their clients are still lagging and need to go. Some outsourcers expect to see up to a 50 percent reduction in staffing due to automation in the next two years compared to staffing levels in 2015.

***How is this dynamic changing the relationship between companies and their outsourcing vendors?***

It's leading to renegotiating and restructuring contracts. Companies are considering different processes and asking themselves whether they should use business process outsourcing (BPO) from an enterprise standpoint or a third-party niche provider. Managing multiple relationships certainly adds complexity to ecosystems. Most often, one-time projects are being done by IT groups themselves, and end-to-end processes are going to a third party.

***Which is better—to handle most of this automation work internally, or use a third party?***

The argument is, if the work is not core to your business, then why invest in it if the third party can deploy automation solutions and at a higher quality? At KPMG, we're building out RPA solutions and offering them as an outsourcing provider. Nontraditional BPO consulting firms, including others in the Big Four, are all deploying these automation technology solutions.

***What new pricing models with automation suppliers are evolving?***

Companies can obtain more favorable terms due to lower costs for automation versus human labor. More flexible pricing contracts will benefit the client in the long term.



### **What are the average cost savings?**

It can be 30 percent to 40 percent net savings for a mid- to large-size company. Labor tasks are being replaced with software licensing. About one-third of the work that outsourcing firms perform can be automated. A company can get up to 50 percent savings if they manage the process so that work flows smoothly through the chain rather than stockpiling or queuing up.

### **Could you give an example of a company that is on the leading edge of implementing IA?**

At a global insurance company, we're creating a center of excellence for automation. We are going to centralize the strategy for automation, and put in a global business services organization. We have one team looking at automation platforms to pull in additional processes and test them to determine the return and then deploy globally.

Additionally, we are prioritizing the company's automation projects for more control and consistency in implementing automation globally.

We also are developing a center of excellence that has an automated control dashboard for the CFO to sign off on automated work in finance and accounting.

Finally, we're developing a fully automated claim process for their auto insurance business. If an accident happens, emergency medical personnel are called to see if help is needed, sensors assess car damage, and drones take pictures and scans of the repairs needed, which are then forwarded to a garage. The driver can be provided an Uber. A claim can be filed and processed, and a check cut within 48 hours. With automation in this case, there will be no claims department, no billing department, and no operations department. With the focus on broad transformation and not just the improvement of any one process, the result will be a truly boundary-less organization.

**When will this automated insurance claim process roll out?** It could be in less than five years.

### **That sounds exciting. What about an example of a company that is not as far along?**

We're working with a life insurance company that is in the earlier stages, at the lower end of maturity. We are creating a center of excellence for automation starting with accounting and finance groups across multiple functions that will ultimately break down silos across functions. We call this the boundary-less organization.

At this insurance company, virtual agents can receive calls from anywhere, process claims, and handle accounts receivable, and a series of functions across groups. As the technology matures in a machine-learning environment, it can learn more about the person calling in and their history to handle inquiries more efficiently.

### **What's the end result and impact?**

The workforce of the future will go across all these tasks. If company managers are not thinking this way and moving in this direction with technology automation at the core, they will be left behind by digital-first companies. ●

#### Case Study

## Pharma company invests for big gains

A global pharmaceutical company had taken steps toward dealing more effectively with complex information technology infrastructure and deep service provider relationships. An assigned team set out to restructure finance and accounting business process services, applications development and maintenance services agreements—processes identified as likely to drive the best potential outcomes.

The team's approach wasn't simply about lowering costs. They reworked the company's information technology service contracts for more competitive costs, higher-quality service levels, and better user experience. The result was significant productivity gains.

The team helped reduce maintenance costs for services by 45 percent and improve digital technologies to automate and streamline self-help steps. Further, restructuring finance and accounting agreements produced 40 percent savings through productivity gains. In addition, the team introduced a contract assessment process that is repeatable across all service agreements across the company. ●

# Contributors

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Principal, Innovation & Enterprise Solutions and leader of IA initiatives, KPMG LLP

Cliff is a leading authority on IA and artificial intelligence with more than 25 years of business transformation, operations, and technology experience. He has been an early leader in applying IA, robotics, and cognitive technologies to operating and business model transformation. Cliff speaks regularly at industry conferences, has published more than 20 white papers on robotic innovations and operating models, and is frequently quoted in leading business publications.

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## Research methodology

KPMG LLP undertook a three-phase study between September and December 2017, beginning with interviews with 10 experts in the field, and supplemented with online surveys and brainstorming sessions with 80 industry leaders, vendors, and KPMG clients. Respondents were from North America (nearly two-thirds), Western Europe and Asia Pacific (about one-third).



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