

Three new trends in RPA use cases

FEATURING RESEARCH FROM FORRESTER

Ten Golden Rules For RPA Success

Three new trends in RPA use cases

Robson Felix, CEO, WDG Automation (an IBM company)

Robotic process automation (RPA) technologies continue to receive attention as a way to automate work to drive scale affordably and quickly. Most of us are familiar with common RPA use cases that focus on routine and back-office task automation. These use cases include, but aren't limited to, updating customer records, reconciling account information, approving credit and refund requests, tracking and reimbursing expenses, entering any kind of data, handling accounts payable and receivables, and processing simple inquiries.

As automation use cases expand or become more complex, RPA solutions require more automation capabilities – workflow, content, capture, AI or advanced decisioning – to be effective. Based on our work with hundreds of clients, we're seeing three trends emerge in how clients want to use, and are starting to use, RPA to give back hours to the business, save costs, and make customer experiences better.

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TREND 1: EXPANDING RPA TO IT USE CASES

The mantra of RPA has been “Make Your Own Bot” (MYOB). This mantra reflects the relative ease with which early-adopter business users built bots to handle simple job tasks. Using RPA tools, business users around the globe have been shortening lead times, increasing process efficiencies and saving costs while improving competitiveness. Meanwhile, IT users are struggling with the most mundane tasks in complex business environments where adaptability is imperative -- where there's mounting pressure to streamline multi-stage processes such as onboarding, as well as simple operations such as resetting a user's password.

RPA is still relatively new to IT users, but it's where we see tremendous opportunity. For instance, creating bots that can effectively respond to a user ticket can allow technical teams to focus on more complex troubleshooting or higher-value tasks. Right now, RPA technology can be used to provision virtual machines, run IT Runbooks, enforce compliance, perform system changes, and apply security or application fixes. Additionally, RPA can help with the application development lifecycle for application modernization and quality assurance. Instead of spending services dollars for expensive migration projects, RPA provides an easy way to migrate data from older infrastructure and systems using native application user interfaces instead of creating data transformation solutions that miss the content of information.

TREND 2: PUTTING A FACE (AND A VOICE) TO A BOT

The need for better self-service and self-enablement has been driving disruption in many industries. For example, consider automation in the banking industry, which started in the early 1960s with ATMs. We're so far into that initial disruption that people today can act as their own bank tellers. The pandemic has further disrupted things and advanced the need for customers -- and employees -- to safely and successfully help themselves. To meet this need, companies have deployed a variety of solutions, such as "how do I..." chatbots and "press 1 for..." Interactive Voice Response (IVR) systems to help with simple, straightforward queries.

The trend is moving beyond simple chatbots and IVRs to Intelligent Virtual Agents (IVAs). IVAs, the result of applied AI through Conversational User Interfaces (CUI) and RPA, are transactional chatbots and conversational voice assistants that can provide the additional benefit of executing tasks and completing processes by applying the user's input to drive workflow. With IVAs, the human-machine interaction can be more dynamic with the help of AI and more responsive with the help of RPA bots.

For example, take an IT help desk scenario where a user engages a bot through his chat platform. Often these interactions end quickly because the user doesn't know what he needs, or what to do, or where to do it. An IVA can better guide the user through the process by allowing him to express his needs in his own language, and by interpreting context, providing relevant answers and feedback, and then executing the transaction. As a result, the user has a more natural experience and the bots can learn new skills when a human is required to complete an action.

TREND 3: USING AI TO IDENTIFY MORE RPA USE CASES

Companies can overspend on automation if they lack insight into their business operations. To help achieve a clear and complete view of end-to-end processes, clients are beginning to use AI-driven RPA tools to understand how people complete tasks and which tasks are best suited for automation. This is different than process mining, which has been around for a while, where application logs are used to determine how a business process is completed. This works well for macro processes, but not individual tasks.

Enter task mining, which captures user interaction streams directly from users' desktops and automatically derives the end-to-end process of the recorded task. AI-driven RPA tools can use AI to analyze how tasks are completed, and RPA to execute the recommendation. It takes the guesswork out of what workloads to automate next -- and what workloads not to automate -- to achieve efficiencies and faster ROIs.

PARTIAL VERSUS FULL AUTOMATION

Organizations are realizing business benefits from creating RPA bots that digitize simple and repetitive tasks, but the benefits are limited compared to the potential ROI from strategically automating end-to-end processes. RPA is the tip of iceberg of the automation journey. It can help drive greater value when expanded to use cases that target IT and more complex customer experiences, and when combined with AI to pinpoint best places to apply task automation.

Whether you're focusing on common or emerging RPA use cases, ROI achievement starts with picking the right use case and then successfully deploying RPA. Keep reading to learn Forrester's perspective on what it takes for RPA success.

If you're looking for next-gen RPA tools that can handle more use cases, such as paperless back office, front-office support, self-service with virtual agents, IT management and document processing, learn about [IBM® Robotic Process Automation as a Service with WDG Automation](#).

Ten Golden Rules For RPA Success

Focus On These Key Philosophies For Lasting Automation Value

by Leslie Joseph and Craig Le Clair

May 26, 2020

Why Read This Report

Robotic process automation (RPA) has catalyzed the conversation around enterprise automation. However, not every organization has succeeded at ramping up to stable, scaled automation. RPA comes with its share of pitfalls and gotchas. This report helps application development and delivery (AD&D) professionals identify important RPA considerations and presents 10 “golden rules” for success.

Key Takeaways

RPA Is Easy To Get Into But Hard To Master

Building your first bot is simple — but scaling an organizationwide RPA program is a whole different ballgame.

Avoid The Temptation To Cut Corners

RPA is an enterprise platform, so treat it as such. Start paying attention to aspects such as business case, change management, and bot security early on.

Automation Is For Humans, After All

Your human workforce can be a major obstacle to RPA success — or your biggest strength. Strive to build a strong automation culture and to bring your people along for the ride.

Ten Golden Rules For RPA Success

Focus On These Key Philosophies For Lasting Automation Value

by [Leslie Joseph](#) and [Craig Le Clair](#)

with [Ashutosh Sharma](#), [Glenn O'Donnell](#), [Sukriti Dangi](#), and [Bill Nagel](#)

May 26, 2020

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Enterprises Struggle With Scale As RPA Surges

Robotic process automation started with a clear commercial proposition: Take costs out of repeatable, predictable tasks with software robots that execute the way a human would. Over the past five years, RPA software has improved, becoming smarter and more resilient via embedded text analytics and links to machine learning and conversational intelligence. Most importantly, RPA has become the foundation for intelligent automation (IA).¹ RPA has a bright future; however:

- › **Scale remains its Achilles' heel.** More than half of all RPA programs worldwide employ fewer than 10 bots.² Moreover, Forrester research indicates that less than 19% of RPA installations are at an advanced stage of maturity.³ Fragmented automation initiatives, a patchwork of vendors, incomplete governance models, and attempts to automate overly complex tasks stall programs. Organizations that attempt to grow their RPA program must overcome process, governance, and culture obstacles (see Figure 1).
- › **Enterprise programs lack the momentum needed to meet ROI targets.** Investments in RPA include new center of excellence (CoE) or strike team staff, infrastructure, and software licenses. At least 25% of companies struggle to meet their ROI targets.⁴ To these firms, scale means finding and automating more tasks.

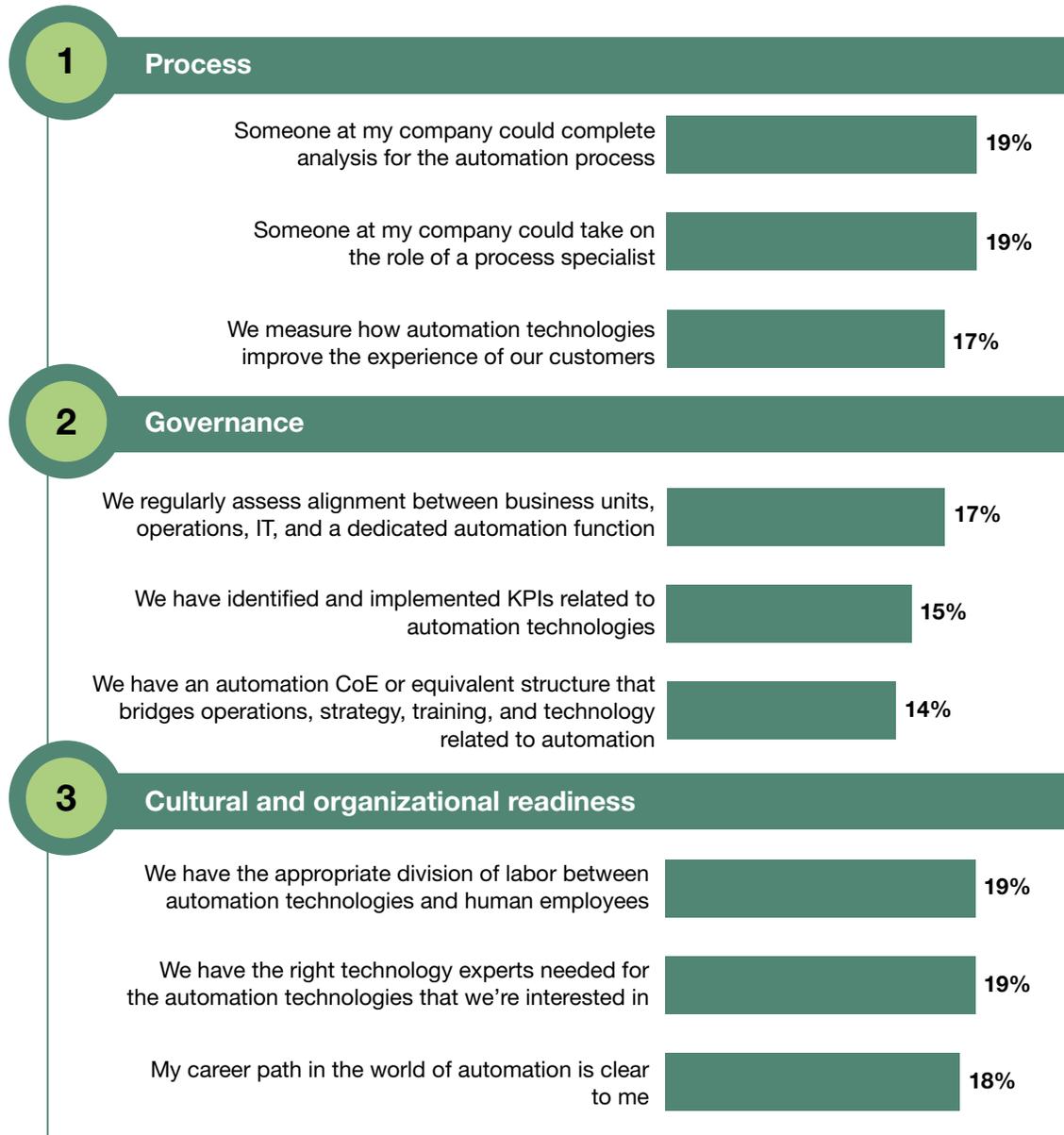
“We will have no ROI until we get real momentum in the company for building automations. You need to hit a tipping point, with a stream of automations happening. Standardize the process first and then automate what is in front of you.” (Automation center program manager, midsize bank)

- › **Finding enough tasks to automate is the biggest scale issue.** “Rule of five” tasks are simple, repetitive tasks that occur in high enough volume to justify the cost of building a bot.⁵ Such tasks are becoming harder to find. Many enterprises looking for tasks to automate end up finding that there is too much variation, even when the outcome is the same. RPA, in its current state, does not handle variation well.

FIGURE 1 Three Key Obstacles To Overcome At Different Levels Of Scale For Any RPA Program

“Do you agree with the following statements about automation technologies and automation efforts at your company?”

(Percentages indicate survey respondents who agree with the statement)



Base: 7,388 global information workers

Source: Forrester Analytics Global Business Technographics® Workforce Benchmark Recontact Survey, 2019

Follow The 10 Golden Rules For RPA Success

Automation will take on an even more critical role in a post-pandemic world as cost takeout and business resilience become the chief destinations on the technology roadmap. RPA will be the first stop along the path to intelligent automation. Technology and business leaders will demand clear, direct benefits from investments in a digital workforce. Follow Forrester's 10 golden rules to reset your RPA initiative for what is to come.

RULE 1: ALIGN RPA EFFORTS WITH BROADER DIGITAL TRANSFORMATION GOALS

RPA has evolved from a transactional focus on cost takeout to a broader automation mandate. US-based Unum, a group and disability insurance provider, uses RPA bots to reduce manual handoffs within customer service representative workflows, automating more than half of the actions they must perform. Securities and credit rating agency CRISIL combines RPA with IA technologies like natural language processing (NLP) to create reports and rate securities. These firms improved their customer experience (CX) and business processes — which is more profound than simple cost elimination.

RULE 2: BUILD A PRAGMATIC BUSINESS CASE FOR RPA

A pragmatic business case will neither overstate the potential value or savings delivered nor underestimate the costs involved (see Figure 2). Automation teams often overlook external licensing; for example, bots that access external systems of record such as SAP may incur indirect license costs to SAP.⁶ Failure to account for such costs in the business case often leads to unpleasant surprises.

FIGURE 2 Common Sources Of Costs And Value In A Robotic Process Automation Business Case

Sources of value	Sources of cost
People impact <ul style="list-style-type: none"> • Reduced raw headcount • Reduced backfill headcount • Reduced accommodation for overtime pay • Reduced peak-time hiring requirements • Improved employee productivity • Intangible: impact on employee morale 	The cost to own <ul style="list-style-type: none"> • Technology acquisition for robot licenses • Infrastructure setup for virtual machines, servers, and environments • Additional licenses for external applications
	The cost to build <ul style="list-style-type: none"> • Bot development • Testing, integration with external systems, and program management overhead
Business impact <ul style="list-style-type: none"> • Greater business agility • Higher task velocity and throughput • Higher service availability • Reduced cost of rework for manual errors • Improvements in compliance • Improvements in CX • Bot-specific improvements from optimal utilization over time 	The cost to run <ul style="list-style-type: none"> • Maintenance and support • Upgrades • Documentation and knowledge management • Impact of bot failure caused by changes to the underlying applications • Ongoing process analysis and opportunity assessment
	The cost of change <ul style="list-style-type: none"> • Program governance and CoE • Organizational change management • User retraining and skill development • Process change

RULE 3: TREAT RPA AS AN ENTERPRISE PLATFORM

Technology and business teams are excited by the ease of deployment and clear value that RPA promises — but must avoid the temptation of cutting corners early. Hold RPA to the same standards and guidelines as other enterprise technology. Define the impact on security, data privacy, credentialing, documentation, and people up front. To ensure good automation governance:

- › **Align RPA with the right use case.** Tech teams eager to experiment with RPA often forget that to a hammer, everything looks like a nail. Other tools in the IA toolbox may achieve a more durable result or lead to greater intelligence. Use Forrester’s automation framework to evaluate RPA as one tool among many.⁷ Avoid RPA for quick data integration when an API approach may be better in the long term. As an RPA leader at an auto manufacturer told us: “We look at RPA as the automation of last resort, after all other models for automation have been evaluated and discarded.”

- › **Formalize approaches to data privacy and resiliency.** RPA bots will handle customer and personal data. Be aware of vulnerabilities that affect data provisions like GDPR. Architecture guidelines and coding standards for RPA development are evolving disciplines. Both affect bots' resilience — how often they break and how long it takes to fix them. Develop control framework checkpoints to review coding practices and key architecture decisions.
- › **Uphold software development and testing best practices.** RPA makes it easier for business users to create automations. That's good — but solutions still depend on scripting, often across a patchwork of workflows and applications. More complex tasks involve more scripting. Thus, bots break due to infrastructure issues, software reliability, application UI, and data changes. They take at least a day, affect customer service and the employee experience, and reduce employee productivity. Bot software development processes are not well-structured, and RPA platforms only weakly address testing. Follow organizational guidelines on code configurability, readability, and performance.

RULE 4: SECURE YOUR BOTS WITH ZERO TRUST PRINCIPLES

Your bots are digital workers; treat them as such. Establish formal policies to identify and authenticate bots as nonperson users and monitor their access rights. Human workers have start dates, managers, training, and termination dates; digital workers should, too. Be sure to:

- › **Avoid reusing human workers' credentials for bots to save short-term costs.** For RPA bots, apply the same processes used to credential and grant access rights to human employees. Loop HR teams into the process early to create a common organizationwide understanding of the principles for managing a hybrid workforce of bots and humans.
- › **Treat each bot as an IT asset.** Manage each bot's lifecycle and identity as a unique IT asset. This can start with something as simple as establishing appropriate naming conventions to differentiate bots from human user accounts. Beyond this, IT teams should put processes and analytics in place to regularly track a bot's access to accounts and entitlements, including alerts for disabling access when the bot is decommissioned.
- › **Assign each bot to an automation owner.** The process owner is accountable for RPA accounts and must handle them as nonpersonal accounts and manage them with the same identity and access management used for human workers. Carve out a distinct role for a human worker — the automation owner — who is designated to run a given automation. Assign automation owners access rights based on their existing privilege levels.
- › **Apply Zero Trust principles to secure your bots.** RPA essentially introduces a new attack surface for human and nonhuman identities. Zero Trust approaches to bot security, identity, and lifecycle management are basic hygiene; enforce them from the outset of the automation program. Store bot passwords in a centralized, encrypted location. The system running the robot must be secure

and up to date. Use secure code development practices. Ensure traceability of every robotic action and decision. Connect access logs to analytics to look for anomalies. Ensure complete penetration testing for each bot before going into production.

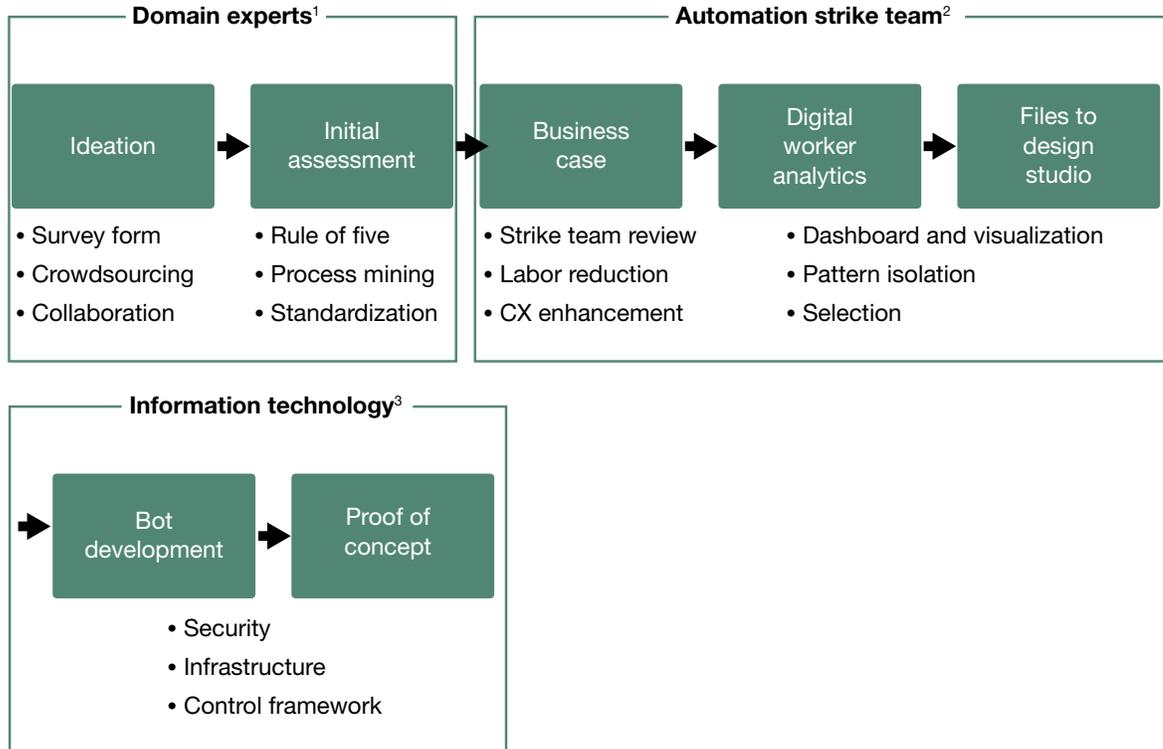
- › **Remember that RPA bots can be an internal or external attack point.** Make security a priority, not an afterthought. Put RPA implementations through the same security checks as any other enterprise system. A rule of thumb is to grant each bot the least access privilege possible while maximizing its ability to run automations continuously. Within virtual desktop environments, designate separate environments for dev, test, and production. Establish standards for centralized storage and reuse of code. Align with established organizational policies, procedures, tools, and controls set by the CIO and the CISO around security, resiliency, and access to data and personally identifiable information.

RULE 5: BUILD A PIPELINE OF PROCESSES

When embarking on an RPA program, and even while at the pilot stage, technology teams should take a pipeline view of processes. Many successful RPA programs have, early on, built pipelines of candidate processes with intake, assessment, and prioritization for up to 12 to 18 months ahead, led by a CoE or strike team (see Figure 3). Build a strong intake pipeline using a two-pronged approach:

- › **For simple processes, use DWA.** Forrester defines digital worker analytics (DWA) as “platforms and methodologies that support automated and systematic approaches to collaborate, capture, structure, analyze, standardize, document, and rank human desktop and browser activity to help standardize, design, and build digital workers for task automation and greater intelligence.”⁸ DWA is data-rich. Consultant-led process discovery is a time-consuming, labor-intensive process — but task analytics can now identify, prioritize, and document human input and output. It synthesizes and ranks task elements — such as login data, screen navigation, mouse selection, screen access, time searching, and field entry from multiple recordings — based on “rule of five” factors like task length, number of people performing the process, and number of systems used.
- › **For complex processes, go deeper.** Complex processes may span multiple heterogeneous application environments. Design thinking and journey visioning are invaluable for understanding complex processes that cover multiple disciplines and stakeholders. These tools allow a nuanced understanding of processes through qualitative inputs around user behavior, motivations, and dependencies. A combined view of qualitative input and hard data through DWA can help uncover short- and long-term automation opportunities to feed the pipeline of process candidates for automation. One major movie studio applied design thinking to identify and streamline the process for metadata management across multiple sources and types of digital assets.

FIGURE 3 Automation Teams Build End-To-End Steps To Create Momentum And Scale



1. Domain experts are in the line of business, such as finance and accounting.
2. Automation strike teams jump-start projects, drive ROI analysis and design, offer technical support, and manage automation guardrails.
3. Depending on the approach, the functions of the automation strike team and IT may overlap.

RULE 6: LOOK FOR OPPORTUNITIES TO IMPROVE, STANDARDIZE, AND THEN AUTOMATE

Redesigning or standardizing a process before automating it may increase initial costs but usually results in more sustainable automation with improved returns. The process improvement toolbox contains many tools and methodologies to help. Methodologies include Kaizen, Lean, Six Sigma, cost of poor-quality analysis, and failure modes and effects analysis. Using these methods for end-to-end process redesign can be daunting, and many companies lack the patience to do so. Faster, more intelligent data-driven approaches are developing. Enterprises find RPA success with process mining and DWA to locate tasks to automate in a viable manner. Note that:

- › **Partial or poorly documented processes are dangerous.** RPA targets often end up being a fragment of a process rather than an entire process. Few consider the throughput of the entire task in straight-through mode. A partial process view ignores the dependencies on external

steps, exposing the automation to instability. Teams also lose the ability to measure the value and impact of such partial automations. Process knowledge can accrete over time, with insufficient documentation. Exception handling often exists as tribal knowledge and is inconsistent across employees. DWA tools from a growing list of vendors can help. Combine RPA with orchestration or other forms of automation to push for straight-through automation. In 2017, ANZ Bank embarked on a process industrialization initiative centered on RPA to re-engineer its end-to-end processes to boost CX, simplify its business, and enable digitization.

- › **It pays to simplify and standardize processes before automating them.** Humans find many different ways to get a job done — shortcuts, tools, task orders — even when the desired outcome is the same. So how will RPA advance and deal with this variation? The answer may be DWA and process mining. Swedish energy firm Vattenfall standardized and rationalized processes before automating its manual, paper-based meter-reading process.⁹
- › **Process mining can lead to success in RPA task automation.** In 2020, efforts to combine process mining log data with desktop inputs and outputs will accelerate.¹⁰ RPA providers got the ball rolling in 2018 and 2019 by partnering with process mining firms.¹¹ Process mining platforms such as Celonis introduced their own desktop analytics in 2019; as cofounder and co-CEO Alexander Rinke told us, “We focused on back-end processes and didn’t capture the front-end automation, such as a customer filling out a form. But we have added front-end logs for desktop activity and will incorporate bots.”¹² RPA vendors like UiPath and Infosys have acquired or developed process mining tools.¹³ Several enterprises see value in process mining and RPA working together.

RULE 7: PLAN FOR AI, BUT DO NOT RUSH IN

Much has been said about using intelligence with RPA. While vendor messaging often conflates AI and RPA, they’re distinct yet coevolving technologies; RPA is deterministic, while AI is probabilistic. Forrester’s Tech Tide report on intelligent automation provides a roadmap for experimenting with, investing in, and maintaining IA technologies.¹⁴ Each technology requires different skills and different approaches to success. That said, RPA does provide scaffolding to apply data science in context and embed machine learning (ML) within processes. Machine learning can help:

- › **Ingest and extract data.** Bots supported by machine learning at the front end can learn to ingest and extract information from multiple data types: structured, unstructured, image, and inferred. RPA bots can pick up information through cognitive capture of inputs from web forms, PDF documents, emails, or scanned images using ML algorithms such as NLP or computer vision and execute downstream tasks involving logic or routing.
- › **Manipulate data.** Machine learning can perform intelligent “fetch or fix” operations, enabling firms to fill data gaps such as incorrect fields or partial addresses. Intelligent tools can compare data from multiple sources, such as clauses in a contract or legal document, to validate the need for a logic-based downstream action.

- › **Create signal-based triggers.** Machine learning can offer data-driven signals to RPA bots that then act upon these signals. Common use cases leverage forms of ML, such as intents from conversational chatbots or predictive maintenance algorithms in the context of sensors and digital twins, to trigger downstream actions. In these use cases, RPA enables an expanded footprint to apply ML to a broader set of downstream use cases. For example, chatbots that could only resolve information-based queries can be augmented with an RPA bot to take actions (such as password resets) based on customer requests.
- › **Augment human decisioning.** Machine learning can trigger dynamic process changes or support human workflows by anticipating process exceptions. Attended bots get a lot more interesting by injecting intelligence into a process. For example, AI-based helpers and listeners can mine an ongoing interaction within a contact center or a help desk to fetch data, preemptively fill forms, or enforce regulatory and compliance-related behaviors.

RULE 8: TAKE AN INNOVATION VIEW OF INTELLIGENT AUTOMATION

Early-stage RPA initiatives should prioritize CX, internal capacity building, and achieving automation outcomes against the business case. But as programs scale and confidence in RPA grows, it can play a critical goal in innovation. An innovation view can help with themes like:

- › **Taking a business services view of innovation.** Your CoE or strike team gives you an internal competency to deliver consulting, scaled delivery, and support capabilities as a business service to the organization at large. But why not innovation as well? Architecture, lifecycle management, measurement, reusability, training, capacity management, quality assurance, monitoring, and reporting that allow automations to tackle new customer experiences and workloads function best within an innovation culture. Your automation team's roles are not just about scale and skill development.
- › **Fostering in-house automation skills.** Using RPA and adjacent technologies to automate processes requires people with new skills and a need for specialization. You must create specific roles for this (see Figure 4). Organizations report recovering 10% to 15% of jobs lost due to automation that accrue to their automation program.¹⁵
- › **Supporting the chosen governance model.** The hard part is getting everyone to agree on a model. But once that's done, centralized or federated CoEs should embrace emerging constructs such as automation strike teams.¹⁶ Quality, consistency, standardization, and reuse of bots is the initial goal, but a culture of and process for innovation is a must. For example, Blue Cross Blue Shield of North Carolina uses an automation factory approach to building automations that allows it to implement bots on a four-week cycle.¹⁷

FIGURE 4 Key Internal Roles To Fill Within A Scaled Automation Program

Role	Description
Executive champion	The executive champion, or sponsor, is the voice of the automation initiative within the C-suite.
RPA evangelists	The evangelist is the internal “head of marketing” for the RPA program. They work with internal customers to sell the value of RPA and help feed the process pipeline with opportunities and candidate processes.
Process specialists	Process specialists are custodians of process improvement initiatives. They are trained in traditional (Six Sigma, Lean, Kaizen) and modern (process mining) process improvement methods. They help assess, vet, and support the design of future-state processes for automation.
RPA developers	RPA developers build and test automations and are responsible for deployment. Forrester advises seeding a pool of RPA developers internally, even if these internal developers may be seeded within vendor teams.
Automation architect	The automation architect has advanced technical skills and is responsible for architecting RPA solutions. Architects are also well-versed in automation strategies, infrastructure setup, solution design principles, and DevOps. They are problem-solvers who promote the use of workflow principles that are efficient, well-structured, maintainable, and easy to understand.
Program managers	Program managers keep the RPA program on track. They oversee the pipeline of automation across the production pipeline and manage adherence to compliance, security, and code quality standards. Program managers may also be responsible for performance reporting and metrics or farm this out to performance support specialists.
Business analysts	Business analysts are a key intake skill. These resources are partly or fully embedded in business teams and are responsible for process definition, process mapping, and documentation.

RULE 9: DESIGN FOR HUMANS IN THE LOOP

Fully autonomous bots remain science fiction; people are still critical to automation success. Human insight, labor, and support is often required to plan for, scope, deploy, and stabilize automations. Straight-through processing is just not viable in all use cases. Beyond this, probabilistic technologies such as machine learning make human in the loop (HITL) essential. You need to carefully design scenarios where bots and humans interact (see Figure 5). To start your HITL design:

- › **Architect human failsafes.** RPA platforms will orchestrate process flows between people and bots, requiring a human safety net in many cases. CX requires a process to manage outcomes if your bot breaks down. RPA that connects with ML to handle exceptions needs humans to train the algorithms, validate results, and manage process exceptions.

- › **Put your employees' well-being at the center.** Automation should not mean that humans come second; rather, it makes them more critical to your success. There's no question that automation will affect your employees' attitudes in new and different ways and play a big role in the restructuring of work; these are the direct consequences of working with intelligent machines and a faster digital pace. ITC Infotech, a midsize software services company, ran a series of design thinking workshops to evolve a job description for a helper bot that would automate the mundane, nonproductive aspects of specific human job personas, freeing up capacity for deeper, more immersive, higher-value work.
- › **Automation requires a new approach to assess EX.** Research into employee experiences (EX) related to automation now center on which EX elements matter most. Anxiety is moving up the list.¹⁸ Machines will make more decisions for us, expose skill gaps more quickly, and challenge us to keep pace. As this happens, the human workers affected most by the march of automation will feel threatened and disenfranchised.

FIGURE 5 Carefully Design The Scenarios Where Bots And Humans Interact

Scenario	Description
Triage	Bots are used to collect and collate information from various sources, which the human worker then analyzes to deliver a final outcome.
Validation and approval	Bots perform actions that require human intervention for assessment, validation, or approval. This is typical of probabilistic situations, where bots produce exceptions with low confidence scores, or in regulated processes where audit trails and accountability are important.
Handoff	Bots are programmed to handle a specific type of data or task and to hand over to a human if certain conditions are met.
Attended mode	Bots are explicitly triggered by a human to support tasks that are primarily the human's responsibility and at the discretion of the human operator.
Helper personas	A combination of triage and attended mode where bots are mapped to a human worker's job persona to support the human across multiple common process flows within the job role.

RULE 10: DEVELOP THE RIGHT AUTOMATION MINDSET

The right automation attitude starts with the goal of automating processes as much as feasible and then bringing human labor in. This mindset is important because the frontier of automation is ever-expanding. RPA has already automated several mundane, routine tasks. In conjunction with AI and ML, it's poised to encroach on an ever-increasing spectrum of process types and areas of decision

making. To succeed with automation, organizations must pivot to thinking of it as the primary model for process execution, not an alternative one. Forrester's robotics quotient framework can help you build organizational muscle around automation.¹⁹ The right mindset requires your organization to:

- › **Go customer-in.** Automation offers the elusive opportunity to redefine legacy work in the context of emerging technologies. Processes have legacies; over time, they accrete steps that don't add value and exceptions that become the norm. The process automation journey gives you the chance to rethink this legacy and refocus vast swaths of organizational processes on the customer — or on the employee for internal processes. Use design thinking approaches to reimagine what your team's major workstreams might look like in an automation-first world.²⁰
- › **Build leadership support for automation.** RPA is rapidly evolving beyond its back-office roots. RPA and adjacent technologies now offer the chance to support strategic goals, including business model transformation. This is even more true now; as C-suite leaders prepare for a world after COVID-19, they should understand automation's transformative potential.²¹ Look to automation as a board-level priority and provide strong executive support for, and oversight of, the automation program. Lack of leadership vision for and stewardship of the automation program will have a negative impact on budgets, organizational focus, and structures. In the near future, we expect companies that master automation to overwhelm and annihilate those that fail to do so.
- › **Discuss emerging skills proactively and transparently.** As automation makes deeper inroads, the elimination of job roles is inevitable. Reskilling for transformed jobs will be rampant. The good news is that automation holds career opportunities for many employees with below-the-waterline jobs.²²

"We're working on a program to train staff on RPA so they're familiar with the technology and can start actively looking for further automation opportunities. We have many examples of staff members who were initially cautious about RPA but now give my team more processes they would like to automate." (Shiv Chandra, RPA manager, University of Melbourne)

What It Means

Commit To RPA As A Steppingstone To Intelligent Automation

Building your first bot is deceptively easy, but getting RPA right and scaling it into an enterprisewide bot factory can be a daunting proposition. At the same time, RPA has proven its value as a strong and direct mechanism to support an enterprise's tactical and strategic goals. We see a plateau coming soon for traditional RPA — so RPA will not fuel the automation revolution unless and until it changes. As RPA aligns more closely with adjacent technologies such as AI, the opportunity for AD&D pros to leverage it for broader transformation will multiply. Use RPA as a steppingstone to a broader automation strategy — but don't drop the ball on the basics. AD&D pros should follow Forrester's 10 golden rules for RPA success.

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Supplemental Material

SURVEY METHODOLOGY

The Forrester Analytics Global Business Technographics® Workforce Benchmark Recontact Survey, 2019, was fielded in July and August 2019. This online survey included 7,388 respondents in Australia, Canada, China, France, Germany, India, the UK, and the US from companies with two or more employees who had already participated in our Global Workforce Benchmark Survey, 2019.

Forrester Analytics' Business Technographics ensures that the final survey population only includes information workers who use a connected device for work at least 1 hour per day. Dynata fielded this survey on behalf of Forrester. Survey respondent incentives included points redeemable for gift certificates.

Please note that the brand questions included in this survey should not be used to measure market share. The purpose of Forrester Analytics' Business Technographics brand questions is to show usage of a brand by a specific target audience at one point in time.

Endnotes

- ¹ Intelligent automation includes 19 technologies important for digital transformation. That includes RPA, workflow, and pragmatic AI components such as conversational intelligence and machine learning. See the Forrester report “[The Forrester Tech Tide™: AI, Automation, And Robotics For Customers And Employees, Q2 2019.](#)”
- ² See the Forrester report “[The RPA Services Market Will Grow To Reach \\$12 Billion By 2023.](#)”
- ³ See the Forrester report “[Gauge Your RPA Maturity.](#)”
- ⁴ Forrester met with 35 enterprises at the January 2020 Opex Conference and asked each about the ROI of their RPA program. Twenty-five percent had not achieved the break-even point or returned enough hours to the company to pay for the investment. About 10% of the companies focused on intangible rewards such as data quality and customer experience. The remaining 60% were very satisfied with the return. This is consistent with Forrester’s experience of the RPA market.
- ⁵ The rule of five has only three rules, but they are all important. There should be fewer than five decisions, fewer than five manipulated apps, and fewer than 500 keyboard actions. See the Forrester report “[Use The Rule Of Five To Find The Right RPA Process.](#)”
- ⁶ Indirect licenses are traditionally floating when they are issued; no one actually uses them. In the RPA context, a bot emulating a human that accesses an application may trigger a license fee.
- ⁷ With this is an automation profile in terms of the effect on processes and people to assess the impact on the enterprise. See the Forrester report “[Get Control Over Your Bots With Forrester’s Automation Framework.](#)”
- ⁸ See the Forrester report “[Myths And Realities Of Digital Worker Analytics.](#)”
- ⁹ Source: “Vattenfall tells about its RPA journey with TCS,” Tata Consultancy Services video, January 15, 2019 (<http://news.tcsbenelux.com/videos/vattenfall-tells-about-its-rpa-journey-with-tcs-41593>).
- ¹⁰ For an overview of 21 process mining and documentation providers and trends toward DWA, see the Forrester report “[Now Tech: Process Mining And Documentation, Q1 2020.](#)”
- ¹¹ For example, Automation Anywhere partners with Celonis. Its tools collect process data from desktop users to identify and highlight bots in Automation Anywhere’s Bot Store and accelerate bot development. Bot developers can assess the value of their processes using the control tower’s service-level agreement calculator to determine where the best ROI is. For bots that move production, it tracks actual runtimes against the personnel savings. Automation Anywhere has also released a “discovery bot” for the DWA market.
- ¹² Celonis added task mining in its November 2019 release. This combines data from a back-end system, which is often regulated and structured, with less structured task activity. Correlating and combining the two requires advanced analytics. The two worlds are less “mapped” than correlated.
- ¹³ In 2019, UiPath brought desktop analytics and process mining under one roof with the Process Gold acquisition. The Infosys EdgeVerve RPA product uses recording plus the Tableau BI tool for analysis.
- ¹⁴ See the Forrester report “[The Forrester Tech Tide™: Intelligent Automation, Q1 2020.](#)”
- ¹⁵ See the Forrester report “[The Future Of Jobs, 2027: Working Side By Side With Robots.](#)”
- ¹⁶ See the Forrester report “[Architect Your Automation Strike Teams To Accelerate Transformation.](#)”
- ¹⁷ Source: “PegaWorld 2019: Driving business value through bots at Blue Cross Blue Shield,” Pega video (<https://www.pegaworld.com/insights/resources/pegaworld-2019-driving-business-value-through-bots-blue-cross-blue-shield>).
- ¹⁸ To gain perspective, read how CIOs, CMOs, and their organizations think about EX. See the Forrester report “[Introducing Forrester’s Employee Experience Index.](#)”
- ¹⁹ See the Forrester report “[RQ 2.0: Assess Your Readiness For Artificial Intelligence, Automation, And Robotics.](#)”

²⁰ For a good overview of research that will bolster your design thinking initiatives, see the Forrester report “[Research Overview: The Design Revolution](#).”

²¹ See the Forrester report “[The COVID-19 Crisis Will Accelerate Enterprise Automation Plans](#).”

²² See the Forrester report “[Future Jobs: Plan Your Workforce For Automation Dividends And Deficits](#).”

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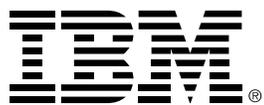
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