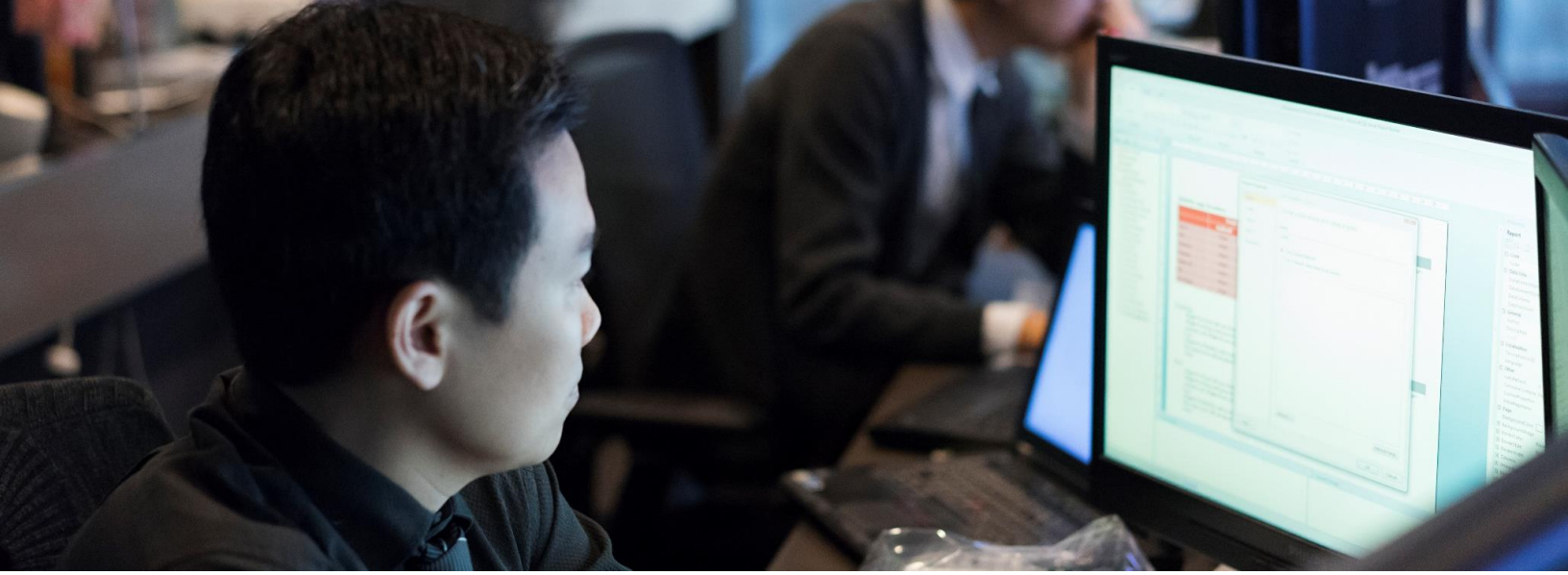


Robotic process automation: A primer for internal audit professionals

Companies are racing to unlock value from the next generation of digital technologies, including digital labor, which has moved far beyond using macros on a spreadsheet. Robotic Process Automation (RPA)–one form of digital labor–involves the use of software robots to automate processes. These robots are easy to configure, require little IT expertise and can be quickly trained and deployed to automate manual tasks. They can perform activities such as copying and pasting data between applications, reconciling and cross-referencing data between different systems and conducting high-level decision-making at key points in the business process. RPA is even being used in more dynamic settings, including activities that involve direct interactions with customers and employees, such as processing customer insurance claims or setting up new employees with the right level of IT access.

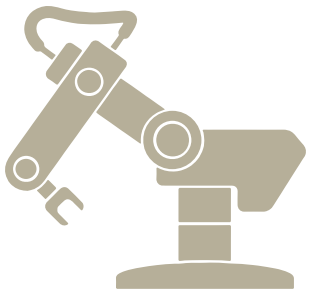
The impact of RPA on a company's operations and competitive positioning is significant on a number of fronts: economic value, workforce advantages, quality improvements, flexible execution, speed and agility.

PwC estimates that 45% of work activities can be automated, and this automation would save $2 trillion in global workforce costs[1].

In addition, RPA projects that prove the value of automation technology and enable an organization's people to get comfortable with digital labor, often serve as a stepping stone to more comprehensive initiatives that use machine learning or other forms of artificial intelligence.

For internal audit, RPA brings both opportunity and responsibility. Internal audit has the opportunity to be a trusted advisor and collaborate with the other functional and business unit leaders on ways to enhance the control environment as business processes are redesigned and automated using RPA. Within internal audit, new testing approaches will be needed for automated processes. Internal audit professionals also have a responsibility to understand risks introduced by RPA and ensure their firm's controls are well designed and operating effectively to mitigate those risks. And, perhaps the greatest opportunity: testing of controls and other departmental tasks can be automated through RPA, expanding internal audit's capacity and freeing auditors to focus on more value-added activity.

As RPA momentum increases, internal audit professionals can keep pace by helping the company understand and control RPA risks and by embracing RPA within their own organization.



[1] Based on PwC estimates

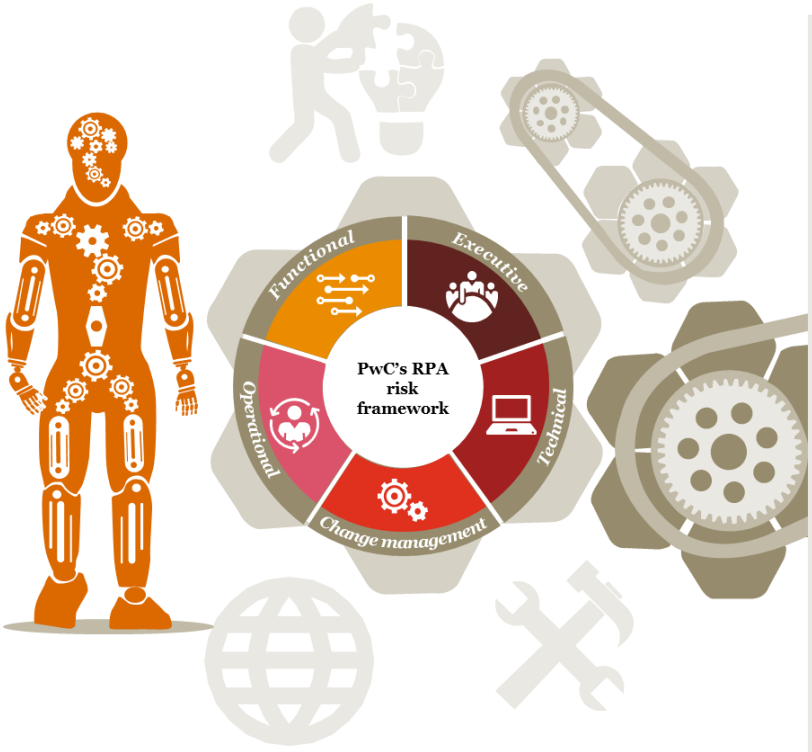
Helping the company understand and control RPA risks

Automation can certainly increase compliance and reduce risk. Unlike humans, who may skip a process step, or are inconsistent in the way they process a transaction, a software robot performs the task in a standard manner, free of bias or any variation, thus ensuring a high level of accuracy. But RPA can also introduce risks if appropriate controls are not in place and monitored. For instance, because RPA action is consistent, any error becomes a systemic and widespread issue across that business process and data set. Or, if there is a business process change but the robot has not been modified to reflect that change, it may fail to perform or introduce inaccuracy. Another potential risk? If someone gains unauthorized access to a robot, it could be altered or used to conduct unauthorized processing.

Chief Audit Executives (CAEs) and their teams need to understand how the organization is using RPA and how that impacts its risk profile by thinking broadly about exposure across multiple categories of risk (Figure 1). Establishing governance of RPA and relevant controls up front should help effectively mitigate risks. By embedding governance, risk management, and controls into the enterprise's mobilization and deployment of RPA, organizations can catch issues before they arise. Getting it right from the start is far more effective and cost efficient than cobbling together a patchwork of policies and controls later.

Internal audit's early involvement in an RPA initiative ensures a balanced discussion, risk assessment and agreement on the overall governance framework and process design.

Figure 1: 5 categories of risk to consider when implementing an RPA program



Executive
Who owns the overall RPA initiative for the organization? Who is developing a company-wide governance framework to promote efficiencies and reduce duplication of efforts?

Technical
How will control of the robot's access to systems and data be handled? How will robots be tested to make sure they function as intended?

Change management
Has management considered the impact the RPA program will have on human resources? How are communications being managed?

Operational
What controls exist to monitor performance? How will the business stay compliant with relevant regulatory requirements?

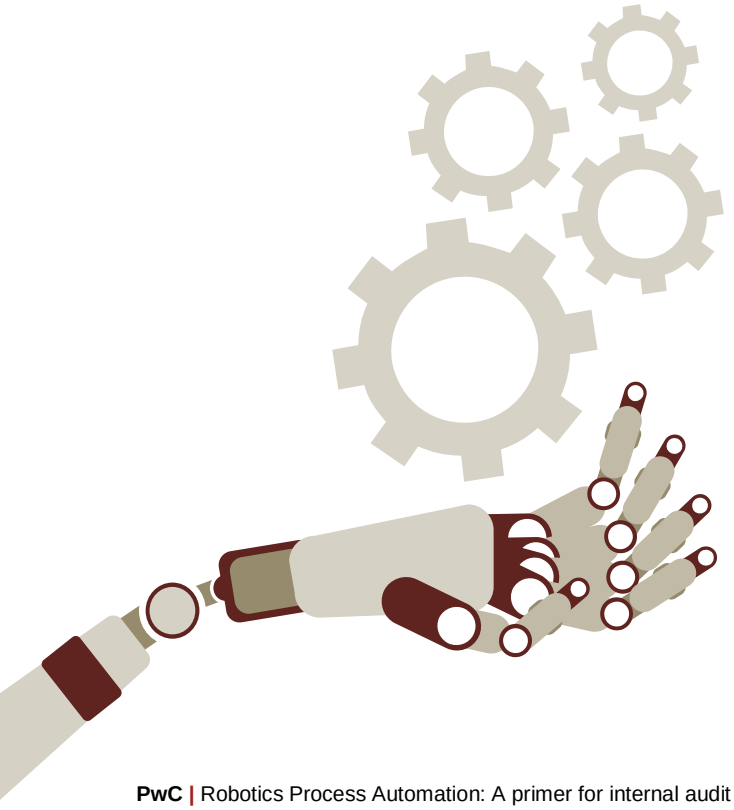
Functional
Who designs controls? Are there scalability limitations in RPA and core systems?

Automating control performance, controls testing and other internal tasks

Controls by their very nature require a consistent repetitive activity and level of documentation – characteristics that make them ideal automation candidates. In addition to helping the company understand RPA risks, internal audit is in a principal position to identify and recommend controls that are well suited for automation. Automating control performance has a positive ripple effect on internal audit. Testing approaches will need to be redesigned for newly automated processes, but testing of the automated control is likely far more efficient.

Many CAEs are looking for ways to satisfy basic internal control compliance requirements in a more efficient way. Where control automation is not possible or yet in place, automating control testing may be an opportunity. In a large organization the use of RPA to automate the testing of general controls could potentially free thousands of auditor hours to focus on other high priority audits.

Through automated testing, internal audit can test full populations of data rather than sampling and management can have greater confidence that controls are designed and operating effectively.



Beyond the automation of controls testing, RPA offers significant potential to change how internal audit works. For example, some of the tasks that RPA could automate include:

- Identifying open items, sending emails to responsible parties, conducting follow-up when due dates are not met and documenting remediation status
- Tracking progress against the annual audit plan or tracking and monitoring key risk indicators (KRIs)
- Automating reporting and dashboarding activities, including populating audit committee and management report templates or internal audit's balanced scorecard
- Evaluating data quality in any system, such as in master data files, checking for completeness of fields, duplicates and validation

To realize the benefits of RPA, deployment must be managed with the same discipline and consideration as any other technology-based project. Internal audit should leverage the company's digital initiative as a technology platform to reduce its cost and increase risk coverage.

From PwC's experience, a successful rollout of RPA requires consideration of a full framework: a strategy that drives selecting the right processes and prioritizing these processes; governance; development, testing and deployment; and the right infrastructure, support and operating model to manage the new robotic workforce. A formal strategy and roadmap will provide the level of rigor around the automation initiative that is required to make it a sustainable, transformative program. Well designed and delivered training can quickly arm internal audit end users with the skills necessary to execute a long- term, sustainable digital workforce in the new operating model.

Taking action now

CAEs are continually pressured to raise Internal Audit's business contribution and to optimize cost. RPA offers the potential to deliver sizable improvements in productivity, cost and risk coverage. It's time for internal audit to proactively engage in the organization's RPA initiatives and to build a strategy and roadmap for its own RPA adoption. As the next wave of emerging technologies disrupts every industry, forward-thinking audit committees will be asking about RPA, and CAEs who mobilize now can be ahead of the curve.

Questions CAEs should consider

Have we inventoried our Internal Audit processes and identified repetitive, mundane or undifferentiated tasks done by humans that could be carried out by robots?

Have we considered if there are processes that could be simplified to then become automated (challenging the status quo)?

Have we connected with the business or functional leaders to learn where they are or could be using RPA and to coordinate RPA initiatives?