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Operations Leaders

Robotics is Transforming
Operations in
Asset Management

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In 1495, Leonardo da Vinci put the finishing touches on a sketch of his "human automaton robot." When constructed, the machine would replicate human movements and gestures. Fast forward through the years. Today, robots are performing human activities in the asset management industry in ways that would make da Vinci proud.

This is to say... Robotics is not limited to scenes in science fiction flicks or drawings of Renaissance geniuses anymore. Nowadays, robots — the invisible kind — are assisting asset managers. These are not robots in the physical sense, but various forms of automation software. These robots help firms work faster and more efficiently; as a result, they are transforming operations. And

for a host of reasons, the asset management sector is fertile ground for their arrival.

Low interest rates and below-normal economic growth have defined the competitive landscape of late. These conditions, along with changing investor preferences, have prompted some asset managers to look at ways to improve performance and create a differentiated client experience.

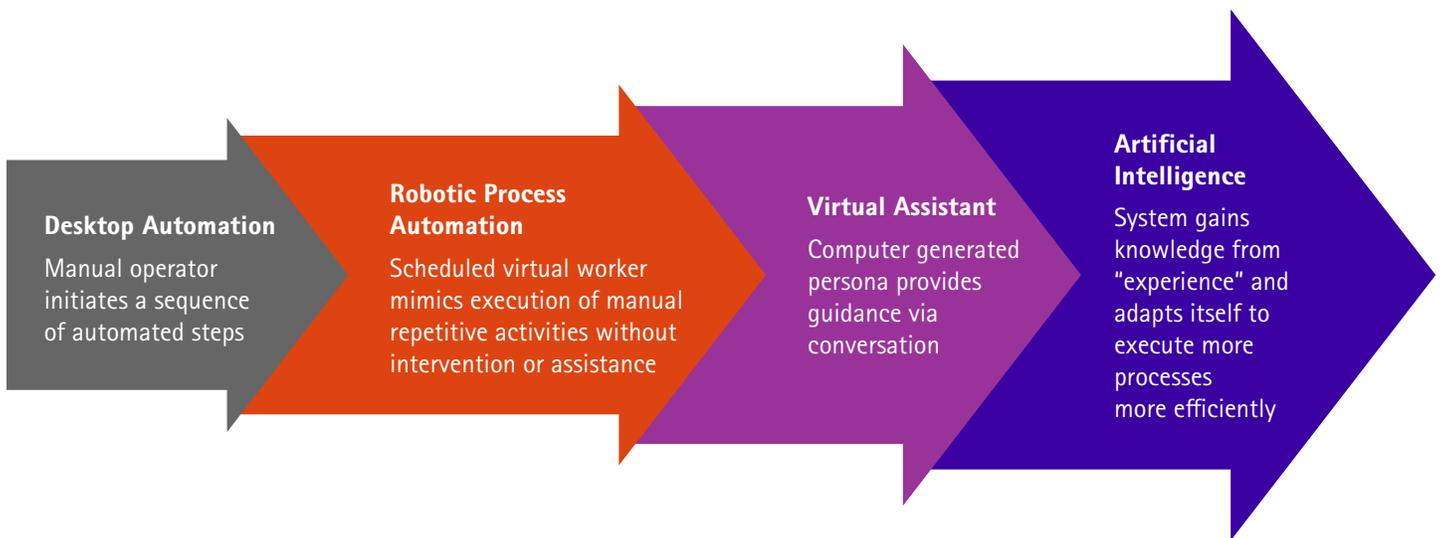
At the same time, technology has advanced to offer solutions in the automated, digital and artificial intelligence space. Middle- and back-office teams are front and center in support of these initiatives. Increasingly, many are capitalizing on Robotic Process Automation (RPA). It could be the route to better service, fewer mistakes, a full audit trail, more scalability and yes, lower costs.



What is Robotic Process Automation?

Simply stated, RPA is the governance and use of technology to run processes or sections of processes on core business applications. RPA technology hovers over the process. It produces the same steps and validations as a human who works on the same system would do.

Figure 1: Overview of the robotics spectrum



Source: Accenture

RPA was borne out of the use of robots to perform software testing. It has evolved over the past decade to enable organizations to automate tasks as if real people were doing them across applications and systems. As such, it can release asset managers' most important resources from high-volume, repetitive roles to do more demanding and valuable analytical work. In short, RPA can empower workers through technology and can enable firms to do more with available staff.

As shown in Figure 1, RPA is part of a continuum, which spans from desktop automation to artificial intelligence. With robotics, you build an automation platform for your middle and back offices as well as support functions. It can be a critical

steppingstone in the evolution of an asset management firm's progress toward total cognitive solutions.

The following points are defining characteristics of RPA in motion:

- Creates a virtual 24/7 workforce able to emulate human execution of repetitive processes
- Interacts non-invasively with existing applications and systems
- Managed by business users
- Developed, implemented and active in a matter of weeks, and is easily adaptable
- Requires no desktop scripting or agent assistance technology

RPA could deliver improved accuracy, data capture, efficiency, output and quality... and yes, lower costs

How to Get Started

Are all processes and workflows targets for RPA? In a word, "No."

A checklist of criteria for activities best suited for a robotics solution includes those that are:



Simple



Intensively manual



High volume



Structurally repetitive



Low exception volume



High likelihood for human error

Identifying candidates begins with an assessment of business applications using a set of process, technology and risk feasibility standards. Those on the short list align with the criteria referenced above; they also involve one or more systems that have relatively static rules.

To derive the most value from RPA, asset managers should plan their initiative carefully at the outset. In this way, they can model and design the best configuration to provide them with sustained benefits, economies of scale, security and resilience.

Investment firms are using digital assistants to manage resources and staff for peak volumes. RPA is also playing a role in helping firms meet their regulatory requirements, e.g., Anti-Money

Laundering and Know Your Customer authentication. Resolution of unmatched trades is another area where RPA is being deployed. Middle- and back-office operations offer ample processes that would benefit from RPA. As noted, those activities that are time consuming and recurring are ripe for this treatment.

Figure 2 shows examples in which RPA drives efficiency, along with improvements in quality, productivity and resiliency. What's more, it achieves these and other desired benefits in a cost-effective manner. On the subject of cost, when implemented at scale, RPA payback can take as little as three to six months.

RPA could offer a fast, cost effective and easy way to optimize middle- and back-office operations

Figure 2: Functional examples of where asset managers could apply RPA

Function	RPA Tasks
Trade Processing	RPA can automate trade exception handling and can be leveraged to create and send emails based on certain exception criteria. For example, RPA could identify a difference in price for the purchase of a security between the investment manager and a broker and craft an email message to the broker based on predetermined rules.
Trade Support – Trade Enrichment, Validation	Derivatives processing can be complex and manually intensive. Frequently, data needs to be reviewed and flow through multiple systems before being final. RPA can streamline many aspects of derivatives processing. Trade validation typically is done by leveraging multiple data sources (e.g., commission tables, market data vendors) and could be designed to leverage RPA.
Cash Forecasting	Where the cash forecasting process is rules based, cash projections can be automated across the timeframes needed by the front office. The process can further link into other areas, such as trade processing and reconciliations, to identify potential overages and shortfalls.
Reconciliations	RPA retrieves data in numerous forms from external parties (e.g., custodian or prime broker websites) and internal accounting/recordkeeping systems, formats the information and compares the data sets. Based on predefined rule sets, the RPA process can trigger research queries, perform matches and populate break commentary.
Information Delivery	RPA can perform a multitude of activities in relation to the generation and delivery of information for internal or client consumption. It can generate standard reports and perform data quality checks. The reports then can be directed for review or queued for distribution via automated delivery to clients, such as by email or secure file transfer.
Fund Administration – Financial Reporting	RPA can be used to perform validation checks across multiple segments of the financial reporting process where the process is repetitive and rules-based.
Fund Administration – Tax	RPA can be designed to run queries, perform calculations, perform data validation checks and even populate forms to support many components of the tax assessment and filing process.
Fund Administration – Expenses	The fund expense process could leverage RPA tools to run validation checks, process payments given predefined criteria and update budget forecasts.
Fund Administration – Blue Sky	In conjunction with Optical Character Recognition (OCR) software, RPA could input manual information into a Blue Sky system to ensure it has the most up to date information. All updates can be placed into a change log for review and audit purposes.
Transfer Agency (TA) – Transactions	In conjunction with OCR software, RPA could retrieve data from manual forms and input the information into a TA system. It could also apply guidelines from the asset manager/service provider to the review process and support aspects of the Anti-Money Laundering/Know Your Client (AML/KYC) process.

Lessons Learned

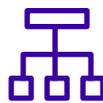
The challenge for asset managers is to ensure a comprehensive governance structure over the deployment and oversight of RPA workflows and solutions. Many are consolidating the leadership and governance of RPA. This makes sense. Since firms have centralized the governance of today's workforce in human resources, that for robots should follow suit.

In all, when undertaking an RPA initiative, firms should facilitate the proper setup based on their needs. The following series of steps serves as a guideline:



Establish the governance and an "RPA Champion"

- Identify key stakeholders in the business and IT
- Design the governance mechanism best to engage all stakeholders
- Appoint senior level leadership to drive RPA within the organization
- Plan how to educate stakeholders to enable RPA to succeed



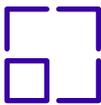
Choose the right structure for RPA within the organization

- Although centralized is preferred, a decentralized or federated model may work with modifications



Align RPA with overall business strategy and corporate culture

- Articulate the business case for RPA within the organization
- Define the vision and mission
- Depict the optimal operating model after implementation
- Describe how to institutionalize RPA as an enterprise capability



Define and create a scalable technical environment

- Choose which tool is best for the firm
- Lay out how the tool fits with the existing architecture, infrastructure and applications
- Enumerate the audit, security, risks, resilience and business continuity requirements



Draw the roadmap

- Form a blueprint of the rollout model
- Draft the templates, tools and standards that are needed
- Define the requirements to support the model after implementation
- Outline the roles and responsibilities of affected parties
- Plan for and schedule how resources should be trained to perform their roles

Top Questions about Robotic Process Automation

It's abstract, new and requires a different way of thinking. Although RPA offers an array of benefits, it also raises a number of issues for those considering going this route.

Here are the top questions that repeatedly come up in discussions:

How do you identify and select the right processes for RPA?

The best candidates are bulk, repetitive, rules-based procedures. A sophisticated scoring checklist is used to make a determination. Factors to consider include case volumes, average handling time, right-first-time targets, customer service levels, risk/error quotient and timeframe for delivery of an IT solution through existing change list.

What happens if human intervention is needed in an automated process?

At times, some processes may call for human judgment, decision-making or authorization. In these situations, a hand-off can occur. This function accommodates moving work back and forth between automated and human workforces, as needed.

How does RPA fit within my existing enterprise architecture?

Residing outside of a firm's IT infrastructure, RPA does not interfere nor integrate with current architecture. Self-contained, RPA runs on top of it and requires no IT transformation projects. The robots perform repetitive clerical tasks by interacting with any application through the user interface just like a human does.

What is the typical timeframe for an RPA project?

An RPA project generally is measured in weeks. One way to determine the time needed to activate is to factor in the same amount of training for a human required for a robot. Tasks that are more complex will take longer, depending on the level of object re-use available.

Does RPA compete with my Business Process Management (BPM) software?

No, RPA extends and complements BPM software, which addresses the automation challenge from a different, top-down, IT-driven perspective. RPA targets small-to-midsize projects, where speed, size and agility are major factors. In those instances, RPA is the fastest and most efficient approach. Larger initiatives with a fuller profile represent best targets for BPM software.

Conclusion

Robotics has firmly landed in the asset management space and can offer attractive opportunities, when done right. RPA can perform tasks that are simple and repetitive at a faster rate than humans can do on their own. The payback for the initial investment can occur in as little as three to six months. Leonardo da Vinci envisioned the potential of robotics many centuries ago. Today, it is real in both principle and practice. And it is making inroads in our industry as an innovation whose time—and need—has come.

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