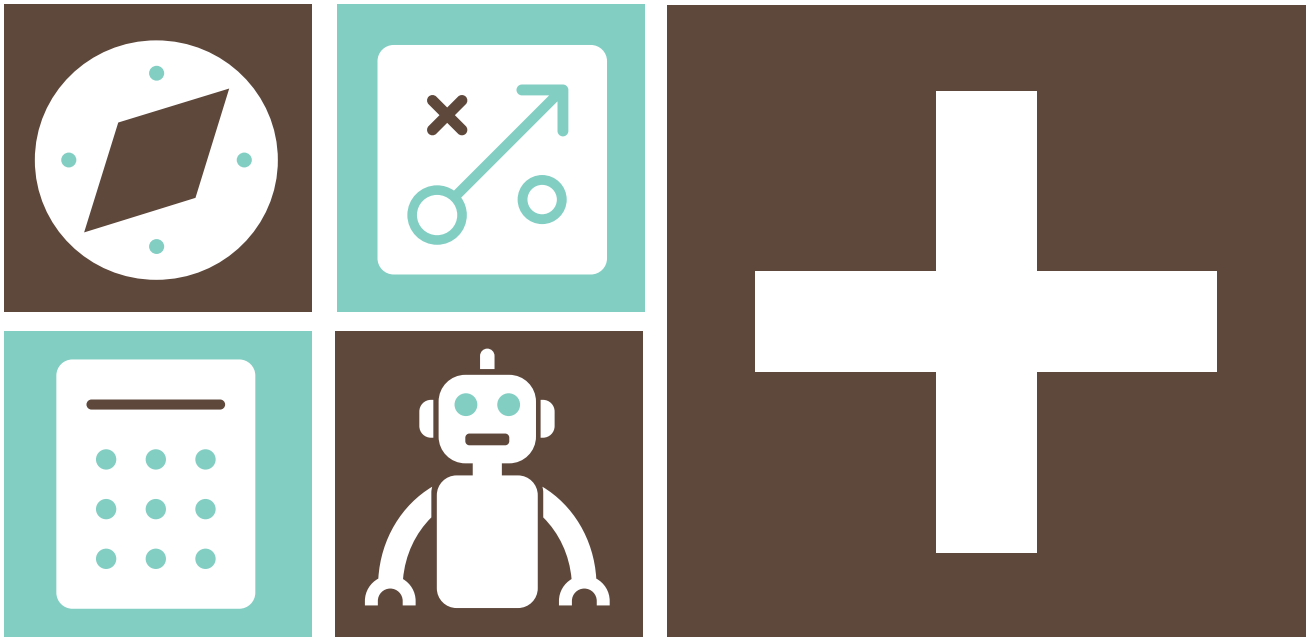# RPA
Robotic Process Automation

What it is, why it matters to your business

In partnership with

TPX human⁺

Introduction

Many conversations I have with potential customers often start with "I've heard of RPA but what is it and what does it do?". The guides and information out there at the moment should answer these questions, but they're often too technical or written in a way that makes them inaccessible to business people. So, here at human+, we decided to develop our guide to RPA, based on our own principles of providing clarity and focusing on the human.

Written by our strategic advisor and partner, Andrew Burgess - in association with D/SRUPTION - this guide's aim is to first and foremost inform and educate; to make it accessible to anyone who wants to know more about RPA regardless of their job title or seniority.. We've worked hard to make sure it clearly and concisely gets across what Robotic Process Automation is and what benefits it can bring, while dispelling some of the myths associated with the technology. And, of course, giving you some practical steps to adopting RPA so it's a positive experience with a successful outcome.

It's no coincidence that we're keen to make sure this guide has been written with the human at the centre of it. It's why we're called human+ after all. And a significant part of our approach is to engage the front line staff as well as the senior stakeholders. Something that, when done well, can achieve the biggest gains from RPA.

You'll see we've profiled our technology partners, Blue Prism and Thoughtonomy. They're our chosen partners largely due to their capability to work with both legacy and modern technology portfolios, a requirement of so many of our clients.

I hope you find this guide useful and accessible: please get in touch if you think we might be the company that can help you on your Robotic Process Automation journey. Or if you think we can make our approach even more human!

Yours,

David Biden, CEO, human+

RPA – Robotic Process Automation

Robotic Process Automation (RPA) is a specific type of business process automation software. Any automation, at its most basic level, utilises technology to replace a series of human actions, and that's where the 'robot' comparison comes in. Not all technologies provide business process automation, though, so replacing a single human action with technology – for example, adding a mathematical equation to a spreadsheet – does not make it automation.

In a perfect world, all 'transactional' work processes would be carried out by some kind of large, all-encompassing IT system, without a single human being ever having to be involved. In our less-than-perfect reality, however, while many systems can automate a large part of numerous specific processes and functions, these tend to be siloed or only deal with one part of the end-to-end process. As an example, think of an online loan application process that needs to get data from, and input data to, a web browser, a Customer Relationship Management (CRM) system, a credit checking system, a finance system, an address look-up system and, most probably, one or two spreadsheets.

Many businesses also have multiple systems that have been acquired as point solutions, or over time through mergers and acquisitions. Any default 'integration' of these systems that ties the whole end-to-end process together has traditionally been a human, resulting in the expression 'swivel chair processing'.

RPA software agents (or 'robots') can be configured to replicate exactly what this human would do across all of these systems – right down to key stroke and mouse movement level – thus negating the need for a human at all. So if the current process requires a person to log into the CRM system and enter some data from a spreadsheet, that's precisely what the robot will do. In a more complicated process, if the CRM does some calculations before giving an output that the person copies into another system (perhaps to carry out a 'Know Your Customer' check), clicks on 'OK' then copies the output of that back into the CRM system, then that is also what the software robot will do. The underlying systems – the enterprise systems, the spreadsheets, the web browsers and so on – do not have to change at all because the robot does *exactly* what the human does, working predominantly at the presentation layer of these systems.

Examples of the more mature RPA vendors include Blue Prism and UIPath. The software lends itself to highly structured routine administration processes such as form filling, client registrations and account administration, which are all rules-based and relatively straightforward process activities.

The benefits of using RPA software agents instead of humans are obvious to all. Robots are cheaper to run, don't make mistakes and don't take sick days or paid holidays. Configuring a robot to complete any task is a very similar experience to training any new human employee.

Then, once it has been trained, the robot will repeat its given task, all day and every day if necessary, while leaving a detailed audit trail of exactly what it has done each time.

What point are we at now?

When I first came across Robotic Process Automation in 2012, I was working as an outsourcing advisor and immediately grasped the significance of this technology. Here was a piece of software that could replicate a large proportion of the work that outsource suppliers provide, as well as lots of work in back office functions and shared service centres. Not only could the robots do the work cheaper, they wouldn't make mistakes and could also work 24 hours a day, every day.

Yet it's only in the last two years that RPA has really taken off. Most global businesses are starting to implement it or, at the very least, are looking at how it applies to them. A large proportion of businesses have already run pilot projects or proofs-of-concept to test the software and validate their business cases. At the same time, the trail-blazers who picked up on RPA a couple of years ago, are starting to industrialise their RPA capability by building Centres of Excellence. A few of these have even started to integrate their RPA solutions with artificial intelligence (AI) to deliver even greater benefits.

But why has it taken so long to reach this nascent level of maturity when the business case for RPA was so immediately and obviously compelling? Well, much of the lag has been down to excessive hype that pervaded the market. Initial expectations were set unreasonably high and the reality has been that implementing any technology, especially one that significantly impacts your workforce, is only half the battle.

Change management is a major consideration for any RPA project. Ask a software vendor
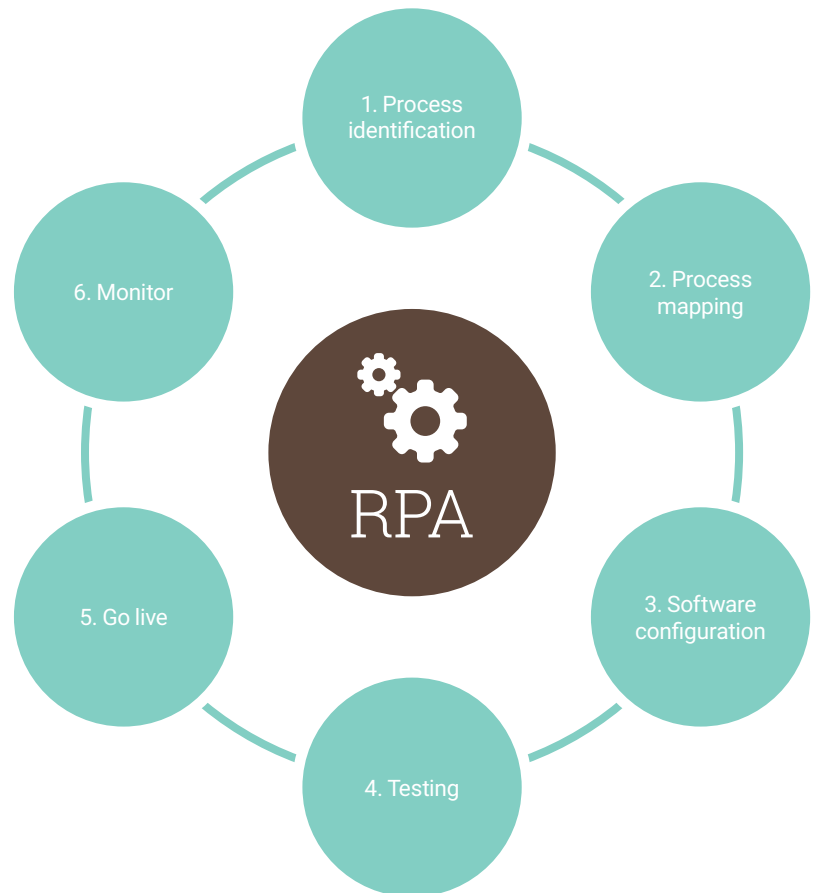
and they'll tell you that RPA is easy, ask an implementation firm and they'll tell you it's really difficult. The truth actually lies somewhere between these two but it is important to go into an RPA programme with your eyes wide open.

Another reason that RPA has been slow to gain momentum is the potential impact it could have on Business Process Outsourcing (BPO) providers. Although it should be an ideal solution for them to implement, RPA will cannibalise their revenue stream, so has met with hidden resistance. While a number of BPO and ITO providers have now fully embraced RPA, many are still only talking a good story about it. If your provider doesn't currently have a tangible RPA solution, you should probably start looking for a new provider.

The final reason for RPA's relatively slow adoption has been a skills shortage. To

1. Process identification

2. Process mapping

3. Software configuration

4. Testing

5. Go live

6. Monitor

RPA

Above: Implementing RPA requires understanding its purpose within your business systems

Robotic Process Automation

implement RPA requires training and experience in one or more of the RPA tools. As recently as five years ago, I could personally name every single RPA developer in the UK and it's taken a long time for supply to even come close to meeting demand. While there is still a clamour for good RPA developers, thanks to more mature training and certification programmes from the software vendors, there are now many more developers available, especially from the big consultancies with resources in India. One of the biggest developments has been in the RPA pure play consultancy, which focuses only on implementing RPA solutions. Along with the vendors using this service, these have become the big winners in the world of RPA.

All of which means that RPA is finally set to fulfil its early promise. There is a reasonable supply of developers, the BPO providers are getting on board and an increase in use-cases means that lessons are being learned and corrected every day. I've described 2017 as the 'end of the beginning' for RPA. Following on from that, 2018 will be the start of it becoming business-as-usual for many organisations.

Where is RPA being used?

In theory, RPA can be used on most rules-based, repetitive processes. Any instance that you can produce a descriptive 'playbook' and outsource something to a BPO provider is a candidate for RPA. There are, however, some industries that have embraced RPA quicker and more comprehensively than others…

The insurance sector is probably RPA's biggest champion. A combination of many post-mergers and acquisitions legacy systems, a large number of manual processes, the resulting high number of staff to deal with them and a high volume of transactions make the insurance business a prime candidate for RPA opportunities. That's even before you look at what the customers want, which is a fast, cheap and error-free digital

"The benefits of using RPA software agents instead of humans are obvious to all. Robots are cheaper to run, don't make mistakes and don't take sick days or paid holidays"

Ciara MacCooey, COO, human+

experience. RPA is able to answer the call on all of these fronts.

Most major UK insurance firms currently use RPA technologies in some capacity, across the whole spectrum of the insurance sector, including carriers, brokers, re-insurance and BPO providers, and across all lines of business, including Property & Casualty, Health and Life. A few large users of RPA have now automated up to 35% of their processes, such as First Notice of Loss, No Claims Discount validation (including making system updates and issuing correspondence), fraud checking and policy renewals (including data gathering and recalculating the policy premiums). In some cases, turn-around times (TAT) for claims queries have been reduced by 85%, while accuracy of claims data has improved from 45% to 95%. The remaining 5% of errors are due to input errors.

Other financial service firms, including many banks, are now adopting RPA, while sectors such as utilities and retail are also becoming fans of RPA due to their large transaction volumes.

In the horizontal back office functions, RPA is particularly suited to the Human Resources and Finance departments. Many HR processes can be complex, typically involving multiple parties, from the HR staff themselves to employees, candidates, IT, Finance department, pension companies, benefits companies and so on. RPA allows the simplification of parts or all of those processes, so that HR staff can focus their time
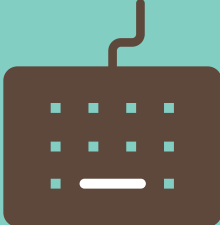
Robotic Process Automation is...

Configurations that automate manual and repetitive tasks
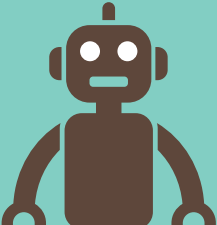
Virtual 'robots' that integrate with existing software

Replication of desktop or server actions

Driven by simple rules and business logic
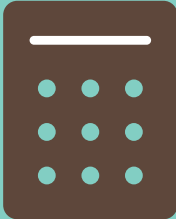
Robotic Process Automation is not...

A humanoid robot

Something that can entirely replace humans

Something that replaces cognitive human functions

Purely just another cost player

Robotic Process Automation

on the more difficult or sensitive areas. For example, businesses that need to vet candidates usually face a huge amount of administration and checking that needs to be done but that rarely uncovers anything of any concern. By automating the bulk of these routine checks using RPA, HR staff can spend their valuable time investigating only those areas that warrant it, either because the candidate raises some red flags or because their data is incomplete. Similarly, in the Finance department, robots can work on regular matters such as debt recovery, reconciling matching errors and the monthly close, freeing up human resources.

In an Shared Services environment, the

> "My estimate is that by 2021, RPAs will be business-as-usual but by 2028, we'll all be living in a UI-free world"

relative abundance of high volume, repeatable, transaction-based processes means that RPA can be exploited to a far greater extent than in a disparate structure. The biggest challenges facing Shared Service Centres (SSCs) are people related, specifically employee attrition and wage inflation, both of which erode any cost savings made when the centre was set up. Yet by automating the transactional processes that are the mainstay of SSCs, these cost issues are virtually eliminated.

Where is RPA taking us?

As I mentioned at the start, RPA is at the 'end of the beginning' of its journey. It has certainly passed the 'peak of inflated expectations' in the Gartner hype cycle. Some will argue that it is entering the 'trough of disillusionment' but if this

is true, it isn't necessarily a bad thing. Indeed, many would welcome the absence of hype so that they can get on with implementing RPA without having to justify it against unrealistic expectations.

RPA will, in time, become business-as-usual for most organisations. It will become just one more proven tool that can be used to improve efficiency and customer service. I often draw parallels to the outsourcing world where I worked for 15 years or so. At the start of this period, outsourcing was relatively new and businesses did Outsourcing Projects and hired Outsourcing Consultants… including me. Yet these days, outsourcing is business-as-usual, so businesses now do Transformation Programmes that include an outsourcing element, or they create IT Strategies then outsource part of that. This normalising will undoubtedly happen with RPA so that in time, we won't have specialist RPA Consultants or RPA Implementers – they'll all be subsumed into bigger programmes and consultancies.

Looking even further ahead, RPA will eventually die a natural death. Imagine you are an IT developer working for a big ERP vendor and it is your job to design the user interfaces (UI). One day, when you realise that there are more robots using your software than humans, you wonder whether you need to have a UI at all. These interfaces only existed to help human users, with the RPA robots simply mimicking human-style actions. Since robots don't need a UI, and since systems can talk to each other directly (through APIs, for example), then the need for the robots goes away. So the moment a UI developer stops working on UIs and starts focusing on building APIs is the moment that RPA's death knell starts to ring out.

My estimate is that by 2021, RPAs will be business-as-usual but by 2028, we'll all be living in a UI-free world. Before that first date, businesses will still need specialists to help

them with their RPA journey. So for now, the bulk of the RPA activity will move from Pilots and PoCs to industrialisation, embedding that RPA capability into an organisation. Additionally, the application of RPA will be adopted by medium-sized businesses. This will be driven in part by the fact that all the larger businesses are already using RPA, but also because the software will become more mature and easier to implement, so will therefore be more beneficial to smaller businesses. Some RPA vendors have already recognised this and are actively targeting companies with 1,000 staff or fewer.

What do I need to look out for?

While it's certainly easier, cheaper and less risky than a full-blown systems integration programme, implementing RPA is rarely plain sailing and it will still throw up its now special challenges.

One reason RPA projects can become more complicated than they should is when the wrong RPA software is selected. This isn't ever a 'square peg in a round hole' but even the oval peg in a round hole of the wrong type of RPA software can hamper progress and impact on the intended benefits. All RPA software will run rules-based processes on top of your existing systems but each one is slightly different and some do certain things better than others, especially when you start to look at the differences between assisted and unassisted automation. That's why you should take your time at the software selection stage and seek advice wherever you can.

Vilfredo Pareto's principle that 80% of effort will be spent on 20% of the work, is very apt here. Automating the 'happy path' (the part of the process where nothing goes wrong or branches off or escalates) can be very straightforward if the underlying systems are well known. But capturing all of the branches and exceptions can take a lot of time and will require special skills in how to look at and map processes. If

the systems are not common, then getting the RPA software to read the fields off the screen before doing the right thing can be extremely challenging. Sometimes this might require trial and error, other times, the addition of some small pieces of code. But once you have seen the same problem a few times then the solution becomes easier to identify next time.

Because RPA is sometimes touted as the 'silver bullet', it can be that other associated software can be forgotten. Many RPA implementations today will also involve web portals and workflow systems. Some use AI tools to enhance the RPA capabilities but don't try to get RPA to do more than it really should. If the workflow is complex, it's much better to have a proper workflow system manage that, leaving the robots to process the actions. If you need to get structured data into the systems for the robots to process, then building a common portal will ensure the data is structured and correctly formatted. Or, alternatively, use an AI solution to extract the data from unstructured documents.

Why should I use RPA?

Why should you be considering Robotic Process Automation? The business case can be a compelling one, with savings of up to 60% having been achieved and 20-30% being common. The return on investment can also be very fast, especially compared to IT implementation projects. Many RPA projects break even within the year, and some in under six months. And all that's before you start to consider the benefits from reduced errors, improved responsiveness and increased compliance.

RPA can offer the next opportunity to deliver step-change benefits to your business. But it is not for everyone. Smaller businesses won't see much return on their RPA investment, while those with large numbers of knowledge workers will struggle to find applicable processes to automate. But, if your business has 1,000 Full

Robotic Process Automation

Time Equivalents (FTEs) or more, is dependent on large amounts of rules-based processes and/or suffers from unacceptable levels of human error, then RPA will be a viable solution.

Having read through this guide, it should be clear that with those benefits comes some risks, so it is vital that you are aware of these before you start your RPA journey. Creating an RPA Strategy (or, even better, an Automation Strategy that also includes AI) is the best way to ensure the success of your programme.

Align your automation objectives with those of your overall business objectives and the culture of your business, ensure that your stakeholders are on board and validate your business case through one or more pilots. Seek assistance with building this strategy, especially from independent specialists, then select your RPA vendor and system implementer carefully. Most importantly, don't believe the hype.

If you are able to do all these, you will have a very good chance of delivering a very successful automation programme.

What should be my next step?

This guide merely scratches the surface of what is required to start an RPA programme in your business. I recommend that you read more material on the subject, both from me and other experts. Start by referring to the list of RPA vendors on the following page.

Contributors

David Biden

I've been advising organisations on how to practically apply modern technologies to their business for many years and now focus on doing that through the use of Robotic Process Automation. Organisations owe it to their employees to place as much focus on innovating the "back end" of an organisation and ensure their people are in meaningful purposeful jobs, as they do to innovate the front end and improve the lives of the citizens and customers they support.

I've been trusted by Banking, Government, NFPs and various other industries to lead large programmes of business change through the use of better technology and the management of how the people within the organisation respond to that technology.

I spent the early part of my career managing legacy IT projects using waterfall methodologies in large organisations. A world away from the "start small test and learn" Agile methodologies we use nowadays but it taught me some valuable lessons in how people react to change and the adoption of new technologies.

As CEO of human+ I set the strategy for our clients on how to get the most out of automation and how to do it with people at the centre. Placing the human at the centre of RPA allows an organisation to make huge efficiency savings through automating mundane repeatable tasks and freeing up resources to be creative and tackle other problems in the organisation.

Ciara MacCooey

Ciara MacCooey is a highly experienced RPA professional, leading the way on delivering process automation into complex and challenging service-led environments.

She works tirelessly to help organisations understand and harness the benefits that automation can provide to customers, employees and stakeholders. She does this by creating a strategy for implementing automation, ensuring it's aligned to the wider operational goals and vision. This will often include the setting up a Centre of Excellence.

Having previously spent a substantial part of her career leading large operational teams, Ciara is passionate about the benefits that a digital work force can leverage in order to help organisations flourish.

Ciara has a wealth of experience delivering digital, operational and commercial solutions across many different customer-oriented environments. This includes project-based contact centre infrastructure implementations, through to funding and cost management on major programmes.

Andrew Burgess

Andrew Burgess has worked as an advisor to C-level executives in Technology and Sourcing for the past 20 years. He is considered a thought-leader and practitioner in AI and RPA and is regularly invited to speak at conferences on the subject. He is a strategic advisor to a number of ambitious companies in the field of disruptive technologies.

He has written two books – The Executive Guide to Artificial Intelligence (Palgrave MacMillan, 2017) and, with the London School of Economics, The Rise of Legal Services Outsourcing (Bloomsbury, 2014). He was recently awarded Automation Champion of the Year by the Global Sourcing Association. He is a prolific writer on the future of work, both in his popular weekly newsletter, That Space Cadet Glow and in industry magazines and blogs.

ajburgess.com

Robotic Process Automation

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Thoughtonomy is a UK-headquartered AI software company that enables organizations and the people they employ to do more and achieve more. The company's award-winning SaaS-based Intelligent Automation platform, gives companies access to a pool of cloud based intelligent digital workers that can perform the repetitive, time-intensive tasks that slow people down. By integrating this digital workforce with their human teams, companies can accelerate growth and achieve a step change in efficiency.

Thoughtonomy was founded in the UK in 2013 and now supports more than 200 clients spread across a wide range of industries in 29 countries. The company has offices in London and Manchester in the UK, as well as New York and Austin in the US.

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Our belief is that the success of Robotic Process Automation relies on engaging the business stakeholders, implementing the right technology and enabling the humans central to its adoption. Our goal is to drive efficiencies across the organisation and create a self-sufficient centre of excellence for the future, while helping people focus on more interesting, business-critical work.

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Written for business leaders by business leaders, D/SRUPTION draws on the experience and talent of our members to share their expertise, insights and inspiration through its website, a quarterly magazine and a calendar of live events.

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