What is Robotic Process Automation (RPA)? - Simple Guide

Before looking at Robotic Process Automation (RPA) at length it's worth considering the issue of business IT automation in the round, and more particularly the question of whether it's something that your business needs to be thinking about. This may seem like a superfluous question, in as much as it's more or less impossible to run a business in the 21st century and not embrace automation to a degree. All too often, however, the adoption of IT automation is piecemeal and responsive, with systems being installed, modified and upgraded over many years, whereas the most effective embrace of everything that automation has to offer is likely to be based on a strategic and proactive approach. Thinking about IT automation, in other words, means approaching it from the ground up, and perhaps the keenest motivation for making that switch is the certain knowledge that your competitors will almost certainly already have done so.

A global survey of business leaders carried out by McKinsey in 2020 found that 66% were piloting solutions to automate at least one of their business processes, a proportion which had risen from 57% in 2018, while the percentage of businesses which had gone beyond piloting and actually automated at least one function was 31%.

Turning to RPA itself, figures published by Gartner show that 88% of corporate controllers expect to start utilising RPA during 2021, driven by benefits such as finance teams avoiding 25,000 hours currently spent dealing with issues caused by human errors. The same analysts predict that global spending on RPA is set to grow by 19.5% year on year during 2021 to hit almost $2 billion, with 90% of larger organisations set to adopt some form of RPA by 2022. All of this paints a clear picture of the dominant role which IT automation in general and RPA in particular seem set to play in the world of business in the immediate future, and why getting to grips with RPA – how it works and what it offers – is vital for any business hoping to stay ahead of the competition.

What is RPA?

In simple terms, the description RPA covers the use of software tools to automate, either partly or completely, tasks which are rules-based, repetitive and manual. Once applied, RPA works by replicating the activities which would otherwise be performed by a person interacting with other software applications. Specific tasks most suited to RPA include data entry, making responses to customer service enquiries and processing basic transactions. In an increasing number of cases, for example, the chat facility on a website will now take the form of a 'chatbot' which is an RPA tool capable of dealing with a range of basic enquiries such as how to reset a password or where a specific aspect of the wider site can be accessed.

While RPA tools don't replace the applications on which a business depends, they do automate the kind of manual repetitive tasks which otherwise take up so much of the time and energy of employees. On a very basic level an RPA tool accesses the screens which employees would otherwise access and pulls the relevant data from specific locations in order to fill in the fields and boxes which the employee would complete. In doing so the RPA tool deals with tasks such as data entry which, although vital for the smooth running of the business, are tedious and low-value in nature, freeing employees up to engage in activities which take full advantage of their creativity, experience and decision making skills. At the

same time, RPA ensures complete consistency across a huge range of activities and eliminates the risk of human error, while simultaneously ensuring that the tasks in question can be completed at a much greater speed than is possible with manual processes.

The practical reality of using RPA within a business can be broken down into three basic steps:

1: Once a specific robot has been installed within an IT system it needs to be given instructions referred to as training. An advantage of RPA is that training the bot doesn't require any technical skills or knowledge of issues such as programming or configuring software. Instead, the majority of bots can be trained thorough a simple screen capture of the task in question being completed. Once the bot has captured the relevant file directories and the steps needed to complete the task it will be able to reproduce the process.

2: The trained bot can then be operated via attended or unattended RPA:

- Attended RPA – this form of RPA involves a user triggering the bot to stop or start the task in hand. It may also need an employee to make minor adjustments to the work flow if an aspect such as a file destination changes.

- Unattended RPA – the bot in this case is capable of operating without any manual intervention, and often runs on a virtual machine or server. Rather than being launched manually, the bot will use a 'trigger event' to start operating and perform a task.

3: If multiple bots are used to perform a range of tasks across a business they will need to be orchestrated to ensure efficient operation. This involves the use of a control panel via which the user can install bots, stop or start operations, give tasks to specific bots and monitor the overall performance of individual bots and the network as a whole.

Types

In general there are two types of RPA – traditional and cognitive. Traditional RPA involves software which can perform simple tasks which don't require decision making or cognitive activity. RPA of this kind works on the basis of a set of rules governing the performance of a task through aspects such as where and when to log in, the data which needs to be collected and where that data has to be transferred. The majority of RPA in operation in businesses today is based around rules based bots of this kind, and providers offer 'off the shelf' solutions which cover multiple business processes running into many hundreds of options. There are some limitations to this form of RPA, however, as rules-based software isn't up to tasks such as recognising human speech or dealing with changes in a user interface. When something more advanced is called for, businesses can turn to the alternative of cognitive automation. This is delivered by state of the art software which is advanced enough to recognise images including handwritten text, and to recognise human speech.

Examples of RPA in action

Although the range and power of RPA is such that it can be utilised in virtually every industry there are some to which it is particularly suited, and the tasks subject to RPA within those industries will give an insight into the possibilities offered:

Banking

RPA can be applied to tasks such as opening and closing an account, collecting data sent in a digital format to create an order for an account to be opened, or performing manual tasks such as cancelling direct debits when an account is being closed. RPA could also gather data from a range of sources to support a loan application, and create a summary of that data for employees to use when deciding whether to approve the loan.

Insurance

The regulatory landscape surrounding the insurance industry is strict and complex. RPA could be used to ensure that high volume tasks can be completed without any mistakes being made and with the kind of accuracy demanded by regulatory compliance. Another advantage of RPA is that it can integrate simply with the kind of legacy applications often present in well-established industries such as insurance.

Healthcare

Any healthcare system relies on the creation and collection of vast amounts of data, from patient records to appointment slips. Cognitive RPA can be used to transfer data from written record to an electronic system. Traditional RPA bots could be trained to send notifications to patients in line with scheduling software and, as the use of wearable tech increases, RPA could be used to gather, filter and collate the date being provided by the devices patients wear.

eCommerce

One of the most time consuming tasks for any eCommerce business is dealing with customer returns. RPA could be integrated across the range of software systems used by the business in order to gather and check data such as inventory, customer details and billing information in order to process returns.

RPA Software and Tools

As these examples demonstrate, RPA can apply across a range of industries and in relation to multiple processes within each individual business. Some of the most common RPA software and tools are as follows:

Blue Prism

Blue Prism is used by medium and larger organisations, but may require a degree of programming ability. It works in multiple environments and with any platform or application.

Inflectra Rapise

The fact that Inflectra Rapise can automate applications on the web, desktop or mobile devices makes it the ideal solution for businesses which use a hybrid structure, such as those with a remote or distributed workforce. It can be utilised by those without development experience, but is limited to Windows-only.

UiPath

UiPath can be used by businesses of any size, and is particularly user friendly thanks to a drag and drop facility. It supports Citrix software and, when used together with Citrix, delivers automation running eight to ten times faster. It can facilitate multiple processes with any level of complexity.

Automation Anywhere

Automation Anywhere supports all core capabilities and can be installed on premises or via the cloud. It is extremely user friendly and operates in a platform independent manner.

Pega

Pega is a cloud based solution which works with Windows, Linux and Mac. It works quickly and offers robust and reliable RPA. Like all the RPA tools under discussion it provides full security for the data being processed.

The Benefits of RPA

The user friendliness of the vast majority of RPA tools and software and the range of business processes to which they can be applied mean that an RPA framework is an option which is open to businesses of virtually every size and type. Some of the advantages have been mentioned already, but it's worth detailing exactly what an investment in RPA could bring to your business:

Reduced costs

The shift away from manual tasks will reduce labour costs and working hours spent on repetitive tasks which create little value in their own terms, at the same time as freeing up resources to be invested in high value training and recruitment.

Increase productivity

The speed and consistency of the tasks carried our using RPA will instantly increase the productivity your business can achieve, particularly when RPA is utilised across a range of different intersecting processes. The removal of human error from repetitive manual tasks, in particular, will make revisions, corrections and delays a thing of the past.

Scale Up

The use of bots rather than employees to perform a range of tasks makes it much simpler to scale up quickly when demand grows. Rather than having to hire new employees or retrain and re-deploy existing members of the workforce, a surge in demand can be dealt with through the careful management of RPA.

Data

The day to day operation of RPA involves the collection of huge amounts of data from a range of internal and external sources. Manual processes tend to let this data slip through the cracks under the pressure of completing the next task, but aspects of RPA can be set to not only gather and preserve the data but also present it in a manner which enables long term, strategic planning and decision making.

Employee Morale

Utilising RPA for mundane, repetitive tasks isn't simply a question of replacing human employees. In many cases the careful use of RPA can free members of your team up to concentrate on activities which are more creative and rewarding and drive more value for the business.

Customer Experience

The simple fact that RPA enables your employees to stop worrying about completing mundane, manual tasks means that resources and effort can be redirected toward creating the best possible experience for your customers.

Integration

RPA doesn't mean replacing existing platforms, software and systems with automated alternatives in a manner which would almost certainly prove to be disruptive. Instead, the RPA tools and software interact with existing systems in a way which enhances their operation without disrupting delivery.

Future Proofing

As demonstrated by some of the figures quoted at the outset of this article, automation is a well-established part of a huge number of businesses and this is a trend set to become even more entrenched in the immediate future. By investing in RPA now your business will be creating a framework fit to take advantage of more advanced forms of IT (such as cognitive automation) as and when they become widely available.

Here at Littlefish we can draw on more than 20 years' experience of working with the kind of technology which sits at the heart of IT. Working in close partnership with our clients, we're able to provide a managed RPA service which combines the best that the technology has to offer with a deep understanding of the approach which is best suited to each individual business. Our hands-on experience of RPA in real world scenarios has enabled us to draw up a list of tips for any business which is considering adopting this transformative technology:

5 Tips for introducing RPA to your business

1. Establish which repetitive processes you wish to focus on – define the processes within your business which fit the criteria for RPA. These will be those based around clear steps with simple objectives and which are sufficiently streamlined to be carried out without in-person decision making.

2. Choose between traditional and cognitive RPA – although many repetitive tasks can be handled by traditional RPA tools there are those – such as digitising written documents, interacting with customer contacts via phone or messenger and transcribing customer service calls – which require cognitive automation based around AL such as language processing, speech recognition and computer vision. If your business will require more cognitive than traditional RPA solutions then it will be best to look for software solutions which are up to the task and can be custom developed and configured to work with your processes.

3. Shop around – having decided which processes you wish to automate and then

assessed the demands that will be placed on your RPA, you are in a position to look for a specific solution from a market packed with the kind of off the shelf solutions detailed previously.

4. Demo – having chosen the RPA solution which is best suited to your business you can begin the process of embedding it within your business. By starting on a smaller scale you'll be able to evaluate the value which RPA can provide for your business and, if the initial test run is successful, scale the use of bots up to deal with a wider range of processes. Scaling up in this manner will involve more input from your operations team, including suggestions for further processes which could be automated.

5. Costs – attempt to calculate the return on investment delivered by RPA after a trial period by tracking the increase in productivity and accuracy which it delivers for a specific task and comparing this to the cost per hour charged by your RPA provider. In addition, any costs associated with integrating RPA fully will need to be factored in. These could include the cost of integrating APIs or developing cognitive modules to work in tandem with traditional automation.

If you'd like to know more about managed RPA and what the expert team at Littlefish could deliver for your business then please contact us today. Automation is a fact of life for virtually every type of business, and we can work with yours to ensure that you keep pace with the competition.