

Driving Digital Transformation with Robotic Process Automation

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Abstract

Compared to conventional administration methods, robotic process automation (RPA) has a number of advantages. Without a less intrusive mechanical hurdle, it allows for cost savings and resource liberation. Other benefits include more output, greater precision (and fewer errors), the potential to streamline regulatory compliance, quicker service (and hence higher customer satisfaction), and more uniformity. A description of business and digital transformation using procedure technology. The creation and use of computer-generated robots using algorithms to carry out repetitive, rule-based tasks now carried out by people in workflow and process-related applications (typically legacy systems) and functions is known as robotic process automation (RPA). Robotic process automation (RPA) refers to the programmer itself that automates methods as well as the method (or process) of identifying the procedures and duties that are most appropriate for RPA. It also refers to the method's strategic plan for achieving successful design and application of the RPA pattern, macros, along with computations.

Keywords: RPA, artificial intelligence, software, automation, robotics

INTRODUCTION

The automation of robotic processes has been experiencing an increasing trend of interest in recent times. However, most of literature describes only theoretical foundations on RPA or industrial results after implementing RPA in specific scenarios, especially in finance and outsourcing. This paper presents a systematic mapping study with the aim of analysing the current state-of-the-art of RPA and identifying existing gaps in both, scientific and industrial literature. The initial task that this investigation does is provide a thorough examination of the 54 key studies that explicitly reflect the state of the art of RPA today. The methodical study's researching phase led to the choice of these as primary research investigations. Second, taking into account the Forrester RPA survey, this article analyses the examination of 14 of the most popular commercial RPA tools using a hierarchy of features comprised of 48 functionalities. The study's findings suggest that several stages of the RPA lifecycle have already found solutions in commerce[1-4]. The majority of technologies, nonetheless

do not address the examination phase. The absence of technology tools to identify the greatest potential internal procedures for mechanisation during this stage mostly reflects the lack of automating. Finally, several potential solutions and difficulties are discussed. RPA has many benefits for businesses, namely increased output, improved precision, and scalability. Nevertheless, implementing RPA has its own distinct set of challenges and worries. Determining the right processes for automation, integrating RPA with current platforms and devices, and taking care of data safety and confidentiality issues are just a few of the hurdles that enterprises must overcome. The influence on the organisation and change

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Received Date: June 20, 2023

Accepted Date: July 11, 2023

Published Date: December 05, 2023

Citation: Vaibhav Lomte, Krishna T. Madrewar. Driving Digital Transformation with Robotic Process Automation. International Journal of Advanced Robotics and Automation Technology. 2023;1(1): 27–31p.

management are equally important to the introduction of RPA. Employees could be worried about their job security and the requirement to adjust to new working practises in the presence of automation. It is essential to take on this challenge and provide appropriate training and upskilling opportunities in order to facilitate an easy adjustment.

Additionally, enterprises need to think about managing RPA bot how they perform, keeping their efficacy, and ensuring expansion effective administration. The lifetime of RPA deployment also depends on selecting a reliable RPA supplier and getting ongoing support[5].

TYPES OF RPA

Attended Automation

This particular form of bot runs on the user's computer and is typically activated by the user. The tasks that are triggered at hard-to-detect programming moments are best suited for attended automation.

Let's take an example where a customer care agent would typically require up to 3 screens and 5 manual steps to complete a transaction. The customer support representative has the option to start an automation code rather than going through all of these[6].

RPA bots can function in a similar manner to a representative, carry out the necessary tasks, and if necessary, seek the representative for help. Attendant automation can be used to support manual chores that need to be done by personnel that interact with consumers.

Unattended Automation

Data processing operations are carried out in the dark by these bots, which are similar to cloud batch jobs. Left alone mechanisation can significantly reduce the workload of back-office staff. The following methods can be used to start unmanaged machine learning: input of information in a specific spot, bot initiated, orchestrator made, and at certain times[7].

Hybrid RPA

This kind of RPA combines attended and unattended RPA processes to enable optimisation for both rear office as well as front- desk tasks. This enables automated procedures from beginning to end.

IMPORTANCE OF RPA

Improve Speed, Quality, and Productivity

RPA bots can be trained to undertake un-intelligent and repetitive tasks faster and more accurately than humans ever could[8].

Get more Value from Big Data

There is an abundance of data being produced by many organisations that they cannot handle. There are numerous chances to learn from this data and increase efficiency. RPA has the ideal ability to assist organisations make sense of the data they are collecting by parsing through massive datasets, both prepared and unprepared.

Free up Employees for More Valuable Tasks

RPA provides the chance to open up people to work on more worthwhile activities. Humans can transition towards the jobs of the future by abandoning tedious and standard duties and possibly upgrading their skills to use machines and artificial intelligence for better results.

Increase your capacity for change

Organisations must learn to adapt quickly to change in order to recover from the COVID-19 disruption. The key to overcome present and upcoming obstacles is persistence and adaptation. RPA

assists businesses speed up operations while lowering expenditures and ensuring that they are prepared to handle upheaval and change.

RPA has steadily increased over the past several years, and Research predicts that it will do nicely into the not too distant future, with 90% of big organisations utilising it by 2022. Gartner cites resilience and scalability as the main drivers for current and continued investment. But RPA provides a multitude of advantages for organizations[9].

AUTOMATON VS RPA

Contrarily, digitization refers to the computerised execution of repetitive processes. Modernization is the introduction of automatic machinery into commercial processes. The conventional method robotic requires little to no human interaction, whereas RPA works without it. RPA does not alter or disrupt current structures as well as infrastructure, as was already mentioned. The current systems must be modified for robotics. APIs are necessary for customisation, yet they are scarce. As a result, manual processing is more challenging and sophisticated than RPA. Such application programming interfaces are necessary in order to integrate automation into current systems. RPA is simple to interface with other programmes and can be set up differently for various users. Traditional automation is cheaper during the first stages as compared to RPA which is a bit costly. But in the long run, automation becomes more expensive due to maintenance costs. RPA is therefore cheaper because it does not include high maintenance costs and also saves time and effort. Robotics implementation requires more time than implementing RPA. It takes longer to complete tasks like design, system analysis, and feasibility tests[10].

RPA is powered by processes. The processes are optimised and improved in order to raise or sustain value. The driven by processes software makes RPA easier to adopt and takes less time. Modern control requires programming abilities. Users must comprehend writing and vocabulary. RPA, on the other hand, does not need experience with programming. There are two varieties of RPA: controllable and the no-coding approach RPA. Developers and programmers who can write the rules governing what the RPA will operate are necessary for configurable RPA. Users simply need to be aware of how it works with no-code RPA. This is due to the flowcharts that are included. Users can delegate activities to machines that are virtual, therefore RPA does not require actual machines. Computation is essential for scalability and parallel execution during conventional robotic. Parallel operation requires the use of living machines.

FUTURE OF RPA

Technology that supports robotic is developing swiftly. This speedy advancement is a benefit that enables for agility years in the future for people who make wise judgements early.

Consider whether businesses approached the Internet of Things less than ten years previously. The choice to transfer mission-critical data to the cloud was viewed as "bleeding border" and inherently dangerous. After all, without on-premise control, how could you be certain of the knowledge confidentiality and longevity?

But today, in a time of mobile staff members and globalisation, the notion of cloud computing is an acronym for data oversight and company resilience. Early users of in the cloud methods were in a better position to alter with the times and circumstances (such as the pandemic).

Conversely, procedure administration and RPA will soon be used interchangeably. Through the perspective of machine learning, every company activity will be examined: How can we make current procedures more effective, efficient, and risk-free?

Development of RPA

The incorporation of the tool into the content universes of an organisation is a crucial part of RPA's progress. RPA is now beginning to reveal some application limitations being an independent offering.

Therefore, most organisations shouldn't opt for pure-play RPA systems, which are those that just provide RPA as a product.

Several analysts believe RPA will soon become a commodity as a tool for increasing output. How the RPA tool may work alongside adaptive enterprise automation, a group of integrated technologies that may embrace, will be a key differentiator. intelligent capture, artificial intelligence, machine learning, case management, workflow, low-code capabilities and cloud-based content services.

As these other tools become smarter alongside RPA, it makes less sense to invest in a pure-play RPA platform and instead invest in one that natively integrates with the other capabilities that bring the most value and drive the highest, quickest ROI.

RPA technology alone can analyze, build, run and manage your identified business processes, and it will continue to be a crucial component. But, RPA will be just one of many components in a broader intelligent automation strategy.

After all, RPA automates tasks within processes—it's up to humans or other technology to identify those processes, tightly integrate them with other tools and systems to address business problems, analyze cross-system data and make strategic decisions.

RPA'S SUCCESSES AND FAILURES

Advantages

1. *Quality*: Making the correct choice or computation on the first try.
2. *Consistency*: The elimination of output differences through identical procedures and duties
3. *Preservation*: Intensification of simulation-based tasks
4. *Production*: Allocating human resources to assignments with higher added values
5. *Adaptability*: Rapid ramp up and down to accommodate spikes in demand
6. *Dependability*: Services are offered 365 days a year with no sick days.

Disadvantages

1. Little companies are unable to cover it
2. Not innovative. It won't think like a human being; it will just carry out its programming.
3. Poor technological aptitude: It doesn't adapt to new standards of technology
4. Consistent Reconfiguration

CONCLUSIONS

In the future, RPA will be essential for building a smooth working environment because it has the capacity to reduce errors and increase efficiency. Repeated tasks will be completed more quickly and effectively, freeing humans to concentrate on skills that are more human-centric, such deduction, judgement, and interpersonal skills.

You can encounter barriers and opposition when deploying an RPA system. Setting conditions up front and stressing an ambitious goal to your management team and staff will aid in the successful RPA onboarding.

Acknowledgement

This research was supported/partially supported by Deogiri Institute of Technical and Management Studies. We thank our colleagues from DIEMS who provided insight and expertise that greatly assisted the research, although they may not agree with all of the interpretations/conclusions of this paper.

We thank STM Journals for assistance with particular technique, methodology, and Prof. K. T. Madrewar for comments that greatly improved the manuscript.

We would also like to show our gratitude to the prof. Dr. R. M. Autee for sharing their pearls of wisdom with us during the course of this research, and we thank 3 “anonymous” reviewers for their so-called insights. We are also immensely grateful to for their comments on an earlier version of the manuscript, although any errors are our own and should not tarnish the reputations of these esteemed persons.

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