INTELLIGENT AUTOMATION: RPA AND AI REPORT 2021

PEX PROCESS EXCELLENCE NETWORK

USING INTELLIGENT PROCESS AUTOMATION TO BUILD **BUSINESS RESILIENCY**

Why an outcome-focused mind-set is crucial in making the most of intelligent automation technologies in business

INSIDE:

- Why businesses are using process automation in hybrid work models
- The best intelligent automation technologies according to USAA exec
- Comidor's CEO on how low-code boosts intelligent automation initiatives

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Introduction

In PEX Network's global annual state-of-the-industry survey, conducted in 2020, 39 per cent of respondents said they were looking to adopt a new operating model, while 31 per cent revealed they would be investing in cloud capabilities to enable infrastructure-wide digital transformation. It is evident that the Covid-19 pandemic has played a huge role in accelerating digital transformation initiatives within organizations around the globe.

Intelligent automation can help organizations efficiently operate and fulfill their business needs at any given moment during the pandemic and beyond. In this PEX Network report, we look at how technologies can be combined to observe, analyze and automate processes, enabling organizations to overcome a variety of business challenges on their digital journeys.

To successfully implement and make the most of intelligent automation technologies, businesses need to be outcome-focused and find ways to leverage these tools, as demonstrated in this report. This approach will help them become truly digital and adaptable in the 'next normal' which will likely involve hybrid work models that will combine remote and office working.

In this report, PEX Network gathered expert opinions from Rolls-Royce, USAA and Comidor, who all offer their insight on how to best implement intelligent automation and what benefits it will bring organizations in the coming years.

Contents

"In intelligent automation initiatives, you need a mixture of humans and technologies, and you need to see what technologies are available on the market to figure out what is best for the outcome wanted."

Laxmikant Pukale

Director of intelligent automation at USAA

The role of process automation in building business resiliency during the pandemic and beyond

In February 2021, nearly a year on from the start of the global paralysis that the Covid-19 pandemic brought upon many organizations, the need to become digital or ramp up digital transformation initiatives remains a key priority for many businesses. In PEX Network's annual global state-of-the-industry survey, conducted in 2020, 44 per cent of respondents picked digital transformation as the top solution to invest in to drive their operational excellence and business transformation programs.

PEX Network's *Trends in Process Excellence 2021* report outlined that in the 'next normal', the hybrid work model, encompassing both remote working and the use of office real estate, was here to stay. To be as operationally efficient as possible, organizations need to move away from paper-based processes to allow for this new way of working to function.

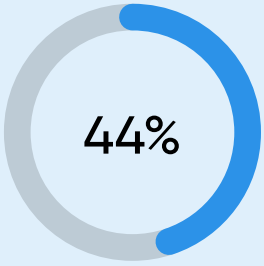
A key element for success is robotic process automation (RPA). By having 'bots' undergo repetitive, manual, time-consuming tasks traditionally carried out by human workers, overall operational efficiency is enhanced and humans' workload lighter, meaning they can focus on value-adding tasks instead. This in turn decreases internal costs and enhances employee experience.

RPA is growing in popularity. Gartner predicts the market to reach a value of $1.89bn in 2021, an increase of 19.5 per cent from 2020 and a direct consequence of the pandemic. In PEX Network's annual global state-of-the-industry survey, of those who had not implemented RPA yet, 26 per cent were looking to invest in it between mid-2020 and mid-2021, while process automation was the focus of 28 per cent of respondents' operational excellence programs.

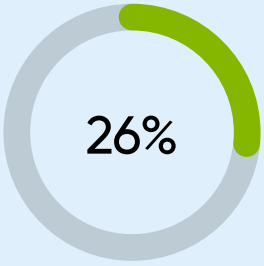
At Rolls-Royce, automation is already implemented and is complemented by new technologies for equipment health monitoring and predictive maintenance purposes across the Power Systems and Defence business units. Lee Glazier, head of service integrity at Rolls-Royce, notes that some processes at the manufacturer will be the focus for automation in the near future.

"Existing automation will be extended to repetitive business processes, including contract administration and recruitment," Glazier remarks.

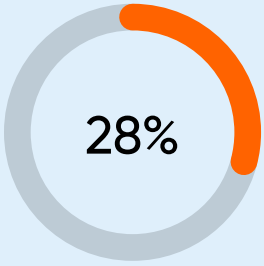
Like at Rolls-Royce, there is a movement of organizations going beyond traditional RPA to automate processes. By applying artificial intelligence (AI) and technologies such as machine learning (ML), process mining and data analytics, organizations will be able to identify processes best suited for automation. The next section of this report will look into what intelligent automation (IA) is and how it integrates these technologies to best leverage them.



44 per cent of organizations surveyed picked digital transformation as the top solution in which they will invest in 2021



26 per cent of organizations surveyed have not yet implemented RPA and are looking to invest in it between mid-2020 and mid-2021



28 per cent of organizations surveyed are focusing on process automation in their operational excellence program

SOURCE: PEX Network, *2021 State of the Industry Survey for OPEX and Business Transformation*, 2020

How to best leverage intelligent automation technologies by integrating them

IA does not just encompass RPA capabilities being enhanced by AI. It combines business process management (BPM) methodology and software, ML, AI, data analytics and process mining. When all orchestrated together, these technologies allow businesses to map-out and analyze internal processes to remove dependencies, identify process redundancies and make informed decisions on which processes to automate from an operational efficiency or ROI standpoint.

In IA initiatives, process mining gives organizations visibility over process steps, while BPM methodology offers information on how best to optimize them. Data can be collected on processes by a RPA bot, and ML and AI can analyze it, and by mimicking human learning can offer information to help humans make informed decisions on their processes.

At Fortune 500 banking company USAA, the tools and technologies invested in are portable, cloud-based and do not require large governance or high maintenance. For USAA director of intelligent automation Laxmikant Pukale, the whole idea of IA lies in integrating these technologies together in a smarter way to best leverage them.

"What we are creating is an ecosystem where the data collected on processes by a bot is analyzed by AI and ML to see if there is anything happening on the process that we are not aware of," Pukale says.

Organizations are moving toward IA and are investing in AI and data analytics. The results of PEX Network's 2020 annual global survey showed that the pandemic prompted 24 per cent of respondents to accelerate the use of AI and 38 per cent to increase their use of data. In 2021, data analytics and business intelligence was cited as the top solution they would be investing in alongside digital transformation, while 28 per cent will focus their efforts on AI.

At Rolls-Royce, AI and advanced analytics have been around for around 30 years and algorithms are trusted for critical and non-critical business processes.

Glazier says: "We have created ethics and bias control toolkit Aletheia FrameworkTM to ensure that AI's outputs are trustworthy."

The aerospace and defence company published the toolkit for free to allow everyone to benefit from it and to help improve the public's trust in AI.

"We believe the application of our intrinsic safety critical mind-set to AI systems has allowed us to make this breakthrough," notes Glazier.

"What we are creating is an ecosystem where the data collected on processes by a bot is analyzed by AI and ML to see if there is anything happening on the process that we are not aware of."

Laxmikant Pukale

Director of intelligent automation at USAA

The use of ML and AI to analyze the data collected on processes to make business decisions, however, can sometimes be problematic.

Pukale explains: "A lot of time these technologies add even more questions depending on how much data is available and who is using it."

The next section of this report will offer advice on what approach to take to ensure IA implementation success.

The recipe for intelligent automation implementation success

When undergoing IA initiatives, a key factor for organizations is to be outcome-focused. Rolls-Royce's Glazier recommends that organizations avoid getting "too hung up on definitions for IA as it is more important that outcomes and governance drive the selection of the most appropriate tools".

USAA's Pukale also believes that organizations should focus on outcomes when implementing the technologies to make the most out of them. At the banking company, IA is expected to serve a specific purpose to solve set issues, as opposed to investing in capabilities without knowing what they can solve.

> "Any data feed coming from humans or machines is likely to have inaccuracies and bias, whether conscious or unconscious."
>
> **Lee Glazier**
>
> Head of service integrity at Rolls-Royce

"Organizations need to orchestrate the technologies brought in so they can be executed to resolve issues, otherwise time and money are wasted," Pukale asserts. "If you do not know what the whole picture looks like when you first implement the technologies, it might make sense to adapt; but I would always prefer going the other way, knowing the outcome first and then going for the right technologies."

Once the outcome is known by the organizations, Pukale believes implementing IA technologies on the processes can be used for process optimization purposes.

"If you know a process has a lot of inconclusive steps and you tell the technology how to optimize them, you will build up the technology without knowing how much can be automated," he says. "I am not saying you cannot do it that way, and it could work, but you could also underestimate or overestimate how much can be automated."

The collection of data on processes is crucial to have visibility and to make decisions on the processes. Rolls-Royce is well-versed in this as at any one time on average, 3,000 engines are being monitored in the sky constantly, which creates billions of data points each year. However, the quality of data for IA initiatives and its impact is a field that is not fully governed yet, according to Glazier. He says: "Any data feed coming from humans or machines is likely to have inaccuracies, and bias, whether conscious or unconscious. At Rolls-Royce, we are further developing our AI governance to proceduralize the identification, minimization and treatment of these data quality issues."

These data points are scalable and best leveraged when, as Glazier states, "it is automatically acquired, requiring no human intervention to acquire or transfer it between systems". If the data is best leveraged when collected by machines and technology is key for process optimization initiatives, one might wonder if humans are needed at all in IA initiatives. They are still required to orchestrate the technologies, as there are legacy processes that need adjustment, Pukale states.

"The focus for human action should be more on, for example, orchestrating a BPM workflow, a RPA bot and a ML model to achieve a desired outcome," he suggests.

There is a lot of value humans can still bring to the table that AI and ML cannot replace yet. As Pukale notes, "this is especially true in human compliance and in helping customers with a human touch that technology cannot replicate".

It is also important for organizations to keep the focus on implementing technology for people to use as easily as possible to make the most out of it, Pukale adds.

"At the end of the day, humans need to decide how IA tools are used and when, because no technology can currently replace that kind of capability," he says. "You need a mixture of humans and technologies, and you need to see what technologies are available on the market to figure out what is best for the outcome wanted."

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How intelligent automation platforms can help overcome unprecedented business challenges

Spiros Skolarikis, CEO at Comidor, discusses how IA platforms combined with low-code add value to businesses during the current crisis and beyond, and offers recommendations for successful implementation

PEX Network: How do AI, ML, data analytics, BPM software and process discovery fit into an intelligent automation platform?

Spiros Skolarikis: Considered the third wave of automation, IA platforms extend the horizons of business process automation. Process discovery is the starting point where advanced AI algorithms detect the performance of tasks and processes to suggest efficient workflows. AI supplements RPA with cognitive technologies like natural language processing (NLP), optical character recognition (OCR) and computer vision, thus achieving end-to-end automation.

IA platforms play a crucial role in optimizing an automated process, as they provide valuable analytics, spot and resolve bottlenecks, and make improvement recommendations.

PEX Network: What is the value of AI in finding processes to automate?

Spiros Skolarikis: People use their business experience to define the processes for automation, while AI provides insights based on data, considered the "new gold". Supporting a business culture that collects and analyzes data is a key strategy for operational excellence and continuous improvement.

AI can analyze both structured and unstructured data, recognize complicated patterns such as fluctuating parameters, track and measure performance, and synthesize multidimensional factors to predict bottlenecks and reach conclusions. Traditional human-driven methods can leverage AI techniques to enhance process automation and uncover new opportunities. Today's digital world requires organizations to embrace a single and unified solution where people and technology work together.

PEX Network: What business problems can IA help organizations solve in the current pandemic world and beyond?

Spiros Skolarikis: The pandemic has revealed unexpected operational challenges and extraordinary circumstances that organizations must address now and in the future. The unprecedented need to satisfy fluctuating demand and increasing customer service requests with lack of resources and workforce capabilities is one of the biggest challenges many businesses have ever experienced.

How intelligent automation platforms can help overcome unprecedented business challenges

Now, the work-from-home model has become the "new normal" and digital automation platforms with IA capabilities can help organizations ensure business continuity and organizational resilience. RPA, AI and process mining have the potential to automate high-volume service requests, form accurate predictions, manage employee capacity and integrate new processes, thus reducing costs and increasing efficiency.

PEX Network: What would be your recommendations for successful IA implementation?

Spiros Skolarikis: To deliver real value and exceptional customer experience, organizations should begin with adopting a holistic approach to IA supported by human effort. Having a robust strategy with a clear vision and realistic goals is critical too.

To fully leverage enterprise-grade IA, organizations should consider that operational excellence is not just about new smart technologies working independently. It is primarily about combining these technologies with BPM and enterprise low-code at the heart of their operations. Some solutions enable fast and continuous business improvement through agile digital transformation and IA.

PEX Network: What do you expect the big developments to be over the next few years in IA?

Spiros Skolarikis: With IA platforms, organizations can address their challenges with any automation technology necessary. It is clear that this holistic approach – known as hyperautomation – is here to stay, and one trend expected to grow significantly over the next few years is its combination with enterprise low-code.

While IA technologies provide end-to-end process automation and optimization, enterprise low-code significantly accelerates the digital automation journey by minimizing the time it takes to maintain, upgrade and enhance all implemented technologies. Moving forward, this hybrid automation model constitutes a powerful weapon for taking digital transformation to the next level, ensuring agility and unlimited flexibility.

"Supporting a business culture that collects and analyzes data is a key strategy for operational excellence and continuous improvement."

Spiros Skolarikis
CEO at Comidor

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Conclusion

This report has shown that IA can help organizations be as operationally efficient as possible in the 'next normal' and in future hybrid work models through the orchestration of people, systems and bots. Through the integration of technologies such as AI, ML, data analytics and process mining, IA platforms provide valuable analytics on internal processes.

Implementing IA initiatives requires organizations to look at the technologies as part of the whole and become outcome-focused. These technologies can be used to solve specific business challenges in relation to operations, workforce capabilities and customer delivery.

The holistic approach to IA is here to stay, adapting to hybrid work models and future unexpected business challenges. Combined with low-code, IA initiatives will boost digital transformation programs in the years to come, as businesses become truly agile.

KEY FINDINGS OF THIS REPORT:

- RPA is growing in popularity and helps organizations move away from paper-based processes in order to adapt to the new hybrid work model.
- The technologies making up IA need to be approached as a whole rather than independently to best leverage them.
- The first step in implementing and deploying IA technologies is having a clear strategy in mind combined with an outcome-focused mind-set.
- While IA technologies can be powerful tools, humans are still required to orchestrate the technologies and offer the "human touch" to customers that AI and ML cannot replicate.

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