

TRENDS IN PROCESS EXCELLENCE: 2020

PEX Network's annual report on the trends set to transform process excellence in the year ahead

Our predictions: 2020 trends

2

In 2020, the reduced level of specialized knowledge required to make a success of RPA will persuade many businesses to adopt and reap the benefits of transformative technology.

These technologies, including intelligent automation and increasingly sophisticated chatbots, are likely to have a transformative effect on businesses and wider industries, including verticals traditionally resistant to change.

AI will continue to expand the capabilities of BPM and RPA in 2020, including analysis of increasingly unstructured data from voice calls, pictures and word documents. The results will be greater transparency for fault-finding, the ability to audit for compliance and improved forecasting.

Thanks to low- and no-code automation, the barrier between IT and operations will fall enabling greater hand-off between departments, improving the flow of processes through an organization and opening new possibilities for innovative new products and services.

Solutions such as BPM and RPA will be replaced by iBPM (intelligent business process management) and RPAaaS (robotic process automation as-a-service).

The vision of 'a bot for every worker' will start to become a reality over the next year as communication between humans and digital workers becomes more intuitive.

As customers increasingly prefer communicating with businesses via chatbots, there are compelling reasons for using chatbots within organizations to speed up processes and provide compliance oversight.

AI and machine learning will augment decision-making capabilities of project managers in allocating resources and streamlining processes. They will also become a core component of RPA, meaning an end of 'pure' RPA by the end of 2020.

Introduction

3

In this report, we look ahead to 2020, and how technologies such as RPA, BPM and AI that have shaped the current process landscape will influence the future. Including AI within existing frameworks will see BPM and RPA become elements of intelligent automation (IA). This report examines the trends we can expect to mature in the coming months, such as how businesses will carry out their processes as the technologies they use become smarter and available as-a-service.

Transformation is seeing businesses change by orders of magnitude. As more traditional markets are disrupted and disruptive markets find new

ways to serve their customers through new channels, we report on how chatbots will move out of the customer service domain and into process excellence, profoundly affecting enterprise automation; the idea of 'a bot for every worker' is gaining ground, and we look at how this might be practically achieved.

We also answer the most important question of all: can 2020 be the year your organization truly realizes the benefits of digital transformation? We assembled experts from different industries to examine the factors that will drive change.

Contributors



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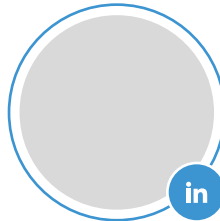
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Why 2020 will be a year of transformation

4

In 2020, more businesses will want to put lessons learned from 2019's success stories into practice. The centerpiece of Veolia's transformation was trimming 11 layers of bureaucracy to just five (as reported in *The PEX Report 2020*). **Brazilian retailer Magalu** embraced new process technology and aggressively tackled internal structures and resistance to change to turn a 50-year-old bricks-and-mortar store into an online marketplace, bucking a local recession to increase its stock price by more than 18,000 per cent since 2016.

The signs point to process excellence having reached a tipping point when it comes to AI. **Christina Leo**, Cloud Solution Architect at Microsoft, says that smart technology makes change in data-heavy process management inevitable: "The compute power in the cloud will do in 10 minutes what used to take five days. It's like the invention of the steam engine." This is not overstating the case: RPA is attractive, infrastructure is a barrier to entry and the cloud is a cost-effective solution.

As Leo remarks, "Small businesses are understanding their resources, getting over security fears and figuring out how best to take advantage of it."

Garret Etgen, Senior Director, LRL Operations at Eli Lilly, believes that all industries will see the need to catch up with the new technological landscape in the coming year.

Etgen says, "Institutions and leaders need to recognize that what defined their historical path to success does not ensure future success; a major difference today is the pace of change (very fast compared to the past) and interdependence enabled by or stemming from global digitization."

There is a contrast between businesses that are complacent, and those that respond with

agility to emerging technologies. Investors are keen to find companies capable of setting new standards in industries ready for disruption. **Kirk Botula**, an angel investor and, until June 2019, CEO at business performance consultancy CMMI Institute, believes that PEX-related technology will, for many companies, reach a sweet spot in the coming months.



"The decrease in the costs of software development is creating a moment where it has actually never been faster, easier, or cheaper to re-envision the way business processes ought to be expressed, leading to material gains in opportunities for value creation," Botula remarks.

2020, therefore, represents a point where trends for advancement in data processing which underpin process mining, AI, RPA and BPM will meet the trend for declining cost.

Garret Etgen says that a familiar pattern of vanguards and laggards is likely to emerge.



"As early adopters have shown the benefits of digital over the last few years, other industries and businesses are sure to jump on board in 2020," says Etgen. In process excellence, the change will be noticeable: "There is likely to be a big wave of enthusiasm, followed by a period of settling where gaps are identified and appropriate use cases established," Etgen adds.

"Small businesses are understanding their resources, getting over security fears and figuring out how best to take advantage of it."

Christina Leo
Cloud Solution Architect, Microsoft

Christina Leo warns that many businesses are dragging their heels when it comes to achieving true excellence.

"Refactoring code is hard and expensive and there is the mentality that 'if it ain't broke don't fix it'," Leo says. "Banks will struggle to allocate money to rewrite any program that feels like it already works just fine."

In a fast-changing world, 'just fine' will not be good enough for long, and Kirk Botula identifies transformations under these conditions as investing out of fear:

"Business and tech media have been telling business people for decades that they are moments away from being made obsolete if they don't double down on whatever the flavor of the month happens to be," Botula remarks. "The fear

of missing out leads to a lot of massive 'silver bullet' initiatives without clear definitions of success." Botula says that there will be a stark difference between the fearful and those who have "clear goals, measures of success, and meter their funding to support controlled experimentation around competitiveness and value creation."

The choice companies face, therefore, is not so much whether to change, as when: are the changes happening for the right reasons as part of a digital strategy, or in response to fear of missing out? Magalu and Veolia have pro-actively used technology to streamline their internal processes and give customers a better experience; in 2020, firms should be looking at these early adopters and realizing that the time to make changes of their own is now.



Enterprise automation trends in 2020

6

- 2020 will see enterprise automation enable businesses to make big changes. RPA and BPM will continue to evolve, using less code and natural language, becoming ever more intuitive to use.
- Businesses that are avoiding change will find change coming to their territory; as traditional markets for BPM and RPA become saturated, vendors will be looking to less familiar industries such as construction, retail and hospitality.
- PEX professionals, moving between verticals, will take their automation experience into industries with currently unrealized potential for automation.
- As RPA begins to move out of specialized departments, the vision of 'a bot for every worker' to speed up and reduce the cost of manual processes will start to become a reality over the next year, thanks to the growth of AI and low-code solutions that will become more available in the next 12 months.

Growing incorporation of AI and machine learning

AI has already changed the game in RPA and BPM. When machines can make decisions based on analytics to complete end-to-end processes such as procure-to-payment, deal with complex customer queries and even make judgements on refunds and reparations, 2020 will see less need for human involvement.

Antony Walker, Productivity Data Analytics and Automation Lead at Bank of America Merrill Lynch, says automation is evolving.

"Over the next year, there will be a lot more focus on AI," Walker predicts. "In 18 months to two years, I don't see there being any pure RPA initiatives; instead, everything will have intelligence built in."

Built-in AI will need to demonstrate ROI, predicts Angela Mangiapane, President at confectionary and pet food giants Mars Global Services. "Anything we're doing needs to be creating value," says Mangiapane. "Most businesses

are using automation to augment skill, scale operations and increase speed. We focused in on operational excellence. We want to ensure efficiency plus effectiveness."

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Combining all types of enterprise automation with AI is attractive as together they are able to reliably perform image and pattern recognition, natural language voice integration and make sense of unstructured data. Using these capabilities in 2020, businesses will automate high-volume customer emails, dramatically shortening processing times while improving customer experience. Finally, in process excellence, AI enabled RPA can visualize and identify areas of improvement, enabling a deeper understanding of organizational structure.

Such capability already exists, but in 2020 it will become much more widely available, more easily implemented and cheaper to adopt.

Industries resistant to change are ready for disruption from new enterprises or experienced CXOs/CTOs

RPA will boom in 2020 in sectors characterized by large workforces, with an overreliance on paperwork and manual processes. Many of these industries, such as construction, retail and hospitality, are traditionally resistant to change, but the promise of cost reductions and efficiency gains will reward businesses that embrace digital opportunities.

Disruption will come from new businesses, but for industries dominated by large players who own the infrastructure, there will be opportunities for experienced chief transformation officers and chief operations officers to make changes in established firms. Attractive candidates will be those who have achieved significant results from automation projects in one vertical and are able to transfer their skills to other sectors that are underutilizing the tools. As Martin Rowson, Global Head of Process Excellence at Uber says, he has insights into the relationship between data and automation from his previous experience of working in a bank.

"The opportunity that organizations have is to identify how they can disrupt themselves before they get disrupted," says Rowson. "From a structural perspective, some of the legacy organizations need to really look at how they can get more insights into their processes."

Further down the hierarchy, the need for automation expertise is creating roles such as **automation engineers**; in 2020 there will be more opportunity for talented individuals to move between industries.



RPA-as-a-service will speed up adoption of enterprise automation

Cloud-based services have practically become the standard as information and processes must be shared across departments and silos, while reducing the burden on IT infrastructure.

The combination of RPA and cloud servers means that software robots can facilitate resource sharing and process optimization on a greater scale. This 'agile process automation' (APA), combining software robots, the cloud, data analytics and machine learning, can both improve business processes and deliver valuable benefits such as improvements in speed, quality and compliance. Much like low-code RPA, the software-as-a-service (SaaS) or RPA-as-a-service (RPAaaS) nature of

these solutions means that the robots can get to work fast, increasing the level of involvement that OPEX practitioners can expect without requiring programming expertise.

Democratization of RPA will start the journey on becoming a commodity product

True commoditization of RPA will begin to happen in 2020. Use cases will drive initiatives to ensure that there is 'a bot for every worker' in process automation.

The innate simplicity of a low-code drag-and-drop user interface means that businesses no longer need to go through lengthy and expensive training cycles, hire outside consultants and developers, or suffer through debugging phases. Instead, in 2020, a wider range of employees can contribute to the development and delivery of process improvement by using platforms that have been built with the non-expert as user in mind.

THREE REASONS FOR THE LOW- OR NO-CODE PLATFORM TREND

- 1 Easier to use:** you do not need to be proficient in coding languages to use drag-and-drop solutions. This means that more people are able to use the tools, taking them out of the hands of IT departments, increasing the speed of deployment.
- 2 Fewer bugs:** building processes out of tested, pre-made components means that solutions are more stable. 'Right first time' solutions speed processes and avoid lengthy delays in achieving results.
- 3 Maintenance made simple:** processes that are not working can be quickly fixed without needing to involve IT, go back to square one to pore through code, or call back an outside consultant. This reduces the cost of fixing problems.



READ: BPM Live 2019: trends, insights and predictions report. Essential reading for any leader who wants to understand why BPM technology is an essential component of process excellence and understand its potential.



WATCH: BPM Live 2019. On-demand sessions our online event include LEGO, McCormick and PEX Transformation Leader of the Year, Brenton Harder.

PwC recommends RPA for "its ease of deployment and the speed and agility it confers on the enterprise". Effectively, such developments as RPAaaS make deployment even easier. RPAaaS enables cautious businesses to run experimental projects for a comparatively small outlay, realize

the benefits and scale. For RPA vendors, inroads to new markets are looking easier than ever before, and the effect on industries will be seismic as restrictions are removed and a new generation of workers come to expect to work with digital colleagues.

How AI and chatbots tackle 'the ultimate manual process'

In process excellence, customer interaction is the ultimate manual process. Although chatbots are in the domain of customer experience, we predict that in 2020 they will become equally indispensable in process excellence as tools that streamline how enterprises interact internally and with customers at scale, turning communications into a process to be measured, mined and automated.

Chatbots are able to facilitate relationships between human and digital workers just as they have caught on with customers. A Forrester study found that 63 per cent of customers stated they were eager to be served by a chatbot, and when customers can find a solution without having to call a customer service representative, they will. Chatbots, incorporated into operational excellence, free employees from tier-1 support so they can focus on more complex cases, just as RPA eliminates manual tasks within a process.

We have identified three major trends in chatbot development that will directly serve process excellence:



Democratized development and low-code chatbots

According to Gartner's 2019 *Magic Quadrant for Enterprise Low-Code Application Platforms Report*, by 2024 three-quarters of large enterprises will use low-code development tools for IT application development. In 2020 these trends have already impacted RPA and BPM platforms, and we can expect the same to be true for chatbots in the next 12 months.

Advances made by Google and OpenCV have raised the tool set to a level where anyone can embed machine learning into what they do. Just

as BPM is being used by process owners, chatbots could be built by customer service agents who have a deep understanding of their front line.

Low-code solutions, however, can lack the complex functionality of code-based products such as error handling and bespoke features. For some businesses, these will be determining factors. We may, however, see a rise in a 'best of both worlds' approach in 2020, where low-code is adopted, but developers focus on integrating complex functionality, such as tracking interactions with users. Low-code chatbots may seamlessly hand over to a more sophisticated bot before the issue reaches a human.



Voice recognition

The difference between a customer and an employee is that employees are paid to wait; if software corporation Autodesk is able to cut response times for some queries from 38 hours to just 5.4 minutes by using the IBM Watson conversation platform, there is potential for internal support to make similar efficiencies.

Developments in artificial intelligence, speech-to-text recognition and natural language processing (NLP) have opened the door to chatbots with voice-activated functionality. According to eMarketer, more than 111 million Americans use personal assistants each month. Consumer satisfaction in voice-based personal assistants like Google Assistant or Siri increased from 61 per cent in 2017 to 70 per cent in 2019. Replace the words 'consumer' and 'customer' with 'employee', and there is a compelling case for improving the workplace with such technology, which will only get cheaper through 2020.



In process excellence, voice chatbots provide additional convenience for users. Mid-task, it may be easier to tell the bot what the issue is instead of typing it out. In another setting, one employee may require a document from a colleague before a task can be completed. Rather than interrupting the colleague's workflow to find it, bots could receive the command, retrieve the file and pop up a permission box before sending it on. The task is completed more quickly without slowing down the colleague completing their task.

Brands such as Vodafone Germany, Apple Business Chat and Swisscom have already implemented WhatsApp as a channel through which users can record voice messages. These bots utilize the same classifiers for both text and voice interactions, reducing the need for traditional text and IVR (interactive voice response) menu options, speeding processes in which they are involved – all within a platform familiar to and trusted by users. We expect to see a lot more of this in 2020.



Chatbots with empathy

Gartner predicts that by 2022, 70 per cent of white-collar workers will interact with conversational platforms daily, and with machine learning, chatbots will learn to close the gap between chatbots and human conversation. We can expect the next 12 months to see rapid growth of interactions between white-collar and digital workers.

As we saw earlier, customers would rather talk to a bot than not, and it will likely be a similar story with quality checking: work assessed by a bot can assure accuracy and compliance without the employee losing face in front of another human. In this regard it could form a vital part of regulated services avoiding 'rogue trader' type scenarios. Similarly, a robot will not share a

human whistleblower's anxieties about flagging up suspicious activity or malpractice. In regulated industries, digital assistants will have an important part to play in due diligence and governance.

Chatbots have been big news in customer service; in 2020 we will see their deployment in process excellence, and they will gain ground fast, becoming smarter, faster and more useful as the technology matures.



Conclusion

AI is getting more powerful and providing more valuable insights for process professionals. This will ultimately make processes available for automation that have previously been exclusively manual.

The trend for no code and being able to interact with a chatbot will make it more accessible to non-specialists. This will enable those who understand a process intimately to build a robot to perform the task.

RPAAaaS will be an option for businesses currently resistant to change, or intimidated by making a large investment in legacy RPA. RPAAaaS will enable smaller businesses to challenge larger companies that have not digitized their processes.

Through 2020, more workers will expect to interact with digital workers. Companies that have automation strategies in place will be more attractive places to work with fewer routine processes and healthier operations.

In PEX, those who understand the technology are excited about the possibilities. 2020 will be the year in which they utilize the new tools and make changes to their organizations that will see them raise the bar within their industries. Transformation will be the inevitable result of businesses that take advantage of the opportunities offered by technology, whether this is the cutting edge of high end AI, or being the first in their industry to adopt RPAAaaS.



The biggest change we will see in 2020 is that the levels of investment and expertise required to make a success of automation will go down, leaving many more opportunities open for businesses to embrace transformation, or for insurgents to enter new industries and transform the environment.



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