From Human To Machine: AI And RPA Are Kick-Starting Productivity To Fuel Medical Breakthroughs

The life sciences industry is barreling toward a breaking point. Productivity is in long-term decline, generics are cannibalizing blockbuster drugs and regulators are applying new pressures. Something must change quickly to turn the industry around.

Faced with these challenges, forward-thinking companies have recognized that artificial intelligence (AI) and robotic process automation (RPA) are ready and able to transform their operations. Automation Anywhere, the world's most widely deployed, intelligent Digital Workforce platform, is facilitating these improvements.

The improvements cannot come soon enough. Deloitte calculates the cost of bringing a new drug to market increased from $1.2bn in 2010 to $2.2bn in 2018.[1] From 2010 to 2016, pharma R&D spending in the US increased by 29%.[2] Returns on these investments are under threat. Patent expirations will expose biologics, with sales of $194bn, to competition from 2017 to 2022.[3]

Medical device companies have other problems, such as the need to spend billions to adapt to legislation that "significantly modifies and intensifies the compliance requirements."[4,5] Such problems are created or exacerbated by the use of skilled staff on low-value processes. By one estimate, 40% of biopharma R&D costs are tied to paper-based processes.[6]

The problems continue once products come to market. Pharmacovigilance, the monitoring of safety post-approval, accounts for 11% of all R&D spending, in part because of its administrative burden.[2]

WHY AI AND RPA ARE A GOOD FIT FOR LIFE SCIENCES

These trends cannot continue. If the life sciences industry is to thrive, it must swiftly control costs and improve productivity. Ideally, the approaches will also improve quality. That is a tough set of criteria to meet. Yet, there is a large body of evidence showing technology available today can clear that high bar.

Boston Scientific, Eli Lilly and other companies have run pioneering projects proving AI and RPA enable transformative change, driving down costs while improving accuracy and freeing up staff to perform higher-value work.

RPA bots emulate staff by executing manual, repetitive tasks and making decisions. Companies tailor bot capabilities to their needs, assigning some bots to limited, rule-based activities while empowering others with AI so they learn and manage semi-structured data. The breadth of capabilities possessed by bots and their ability to automate processes involved in any system or application mean they can help across the value chain, from drug discovery to regulatory compliance.

That broad applicability of the technology is evident in the real-world use of intelligent automation. Working with Automation Anywhere, Boston Scientific initially looked to intelligent RPA to improve four processes involving a device used to read a cardiac implant.[7] The processes were performed manually or impossible to handle before RPA.

Now, Boston Scientific has a bot that monitors an email address related to the device and notifies the inventory team when it receives a request, facilitating timely responses and deliveries to customers. Other bots upload transmission summaries to support billing, inform sales staff of device inventories and periodically produce invoices using data from an SAP enterprise resource planning system.

The ease and speed with which bots can be deployed enabled Boston Scientific to quickly put an intelligent RPA system in place. The company has since deployed bots to automate more than 50 processes, resulting in zero errors and savings of $240,000 a year.

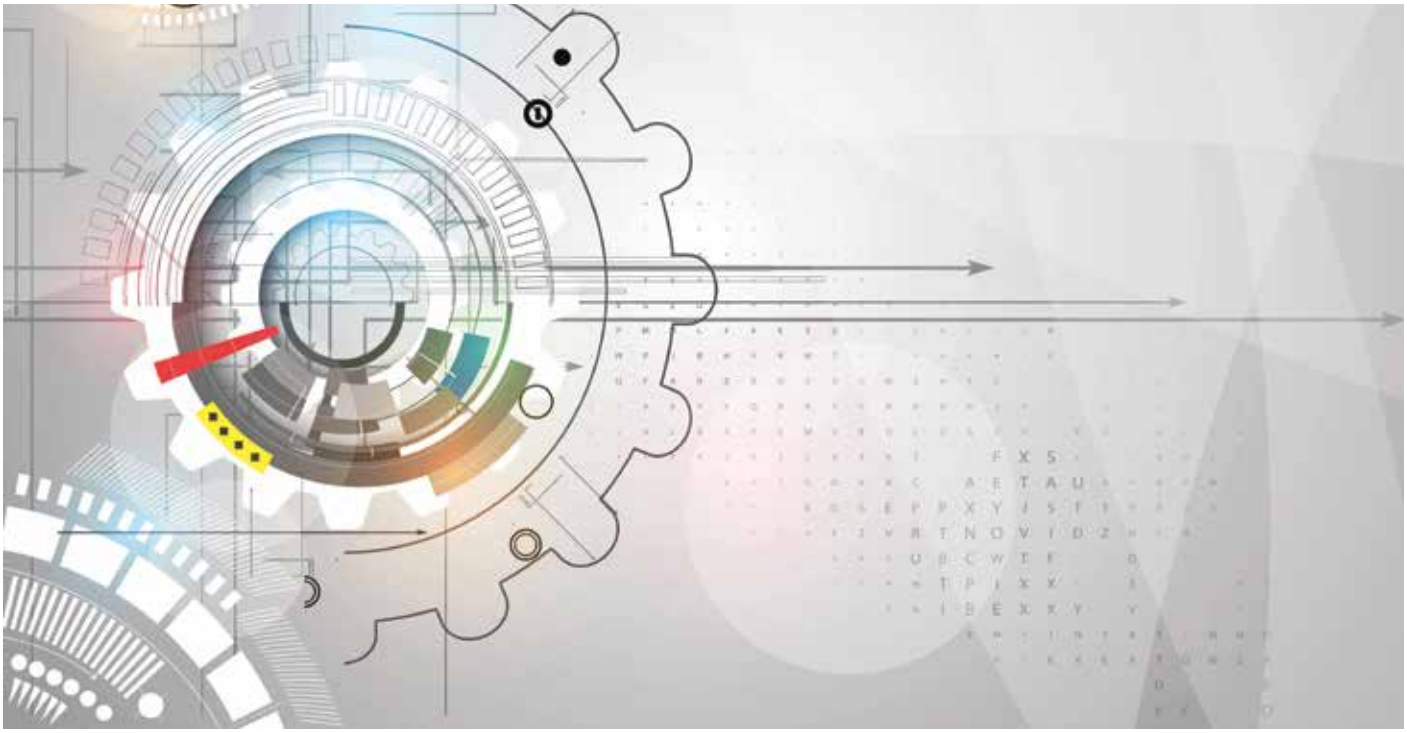
AI and RPA are also transforming biopharma companies. Eli Lilly, for example, used intelligent bots to automate payment confirmation and notification letter processing in Japan, saving $1.5m and 3,850 hours and encouraging it to automate more complex, highly regulated job functions.[8]

Such quantifiable benefits are only part of the story, though. AI and RPA also improve the working lives of human employees by eliminating the robotic parts of their jobs. That change frees people to apply their creativity to important, high-value work such as development of the next wave of medical breakthroughs.

HOW TO GET STARTED WITH AI AND RPA

Life sciences companies can start making their employees' lives better today. With 3,500 customer entities and 1,900 enterprise brands using its solution, Automation Anywhere is well placed to help companies get started with AI and RPA, guiding them past potential barriers and ensuring they quickly start realizing the benefits of automation.

"Our intelligent RPA technology helps you save time and resources to accomplish goals like no other automation technology



we've ever seen. As a result, our customers in life sciences are experiencing unprecedented success and faster time to market," Catherine Calarco, senior director, industry strategy and marketing for life sciences at Automation Anywhere, says.

Some companies leap into RPA, leveraging the experience of specialists such as Automation Anywhere to roll bots out in weeks to address urgent needs before tackling other processes in a more measured manner. This approach has proven successful, both in addressing the urgent problem and in leading to long-term, large-scale use of RPA.

Yet, for companies that have the time, Automation Anywhere's experience shows there are benefits to planning. By engaging multiple teams early, a company can address employee concerns, overcome conceptual barriers and establish an implementation model tailored to its circumstances. Assigning a senior employee with influence over the budget as an RPA champion ensures the use of bots is supported by groups across the organization and aligned with their needs.

Planning enables rigorous vendor selection, too. Companies should assess whether the vendor will innovate as technology advances, is able to deliver enterprise-grade security and can provide intuitive software so staff can create and run their own bots.

The next step is to identify initial use cases. Companies should avoid low-risk, low-reward projects as they fail to provide the evidence needed to support widespread RPA use. Rather, businesses are best served by targeting high-value processes that touch multiple major systems and tracking predefined markers of success, such as cost savings, increased compliance and higher productivity.

Generating proof of concept in a high-value process tests business case assumptions and validates the implementation model, positioning the organization to start a wider pilot test before moving into the scale-up phase. Ultimately, organizations reach a point where AI and RPA are embedded in their culture, making intelligent bots a go-to option for manual tasks and workflows and thereby freeing employees to do higher-value work.

A fast-growing number of life sciences companies have been through this process and are reaping the rewards. Now is the moment for the rest of the industry to follow their lead and begin the digital transformation needed to thrive in the face of rising costs and commercial pressures.

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