

RPA Provides a Lightweight, Agile Approach to Automation

It allows companies to automate processes at a fraction of the cost and time of classic software development.

By Irving Wladawsky-Berger, *Wall Street Journal*



An employee of SoftBank Robotics holds the Robot Assistant NAO in Paris, France

Robotic process automation aims to improve the operational efficiency of office and service workers by automating tedious, repetitive tasks such as those associated with widely used horizontal processes in HR, finance and accounting, and IT services.

It allows companies to automate processes at a fraction of the cost and time of classic software development. Rather than automating a process by redesigning the overall back-end application, RPA interfaces with the back-end system by performing the same actions that a human does via the application's user interface. It thus creates software robots, or bots, that work alongside the humans.

While people may imagine shiny robots gliding around office buildings, ***“in reality, this is just software that can be made to perform the kinds of administrative tasks that otherwise require stop-gap human handling—for example, transferring data from multiple input sources like email and spreadsheets to systems of record like ERP and CRM systems,”*** professors Mary Lacity and Leslie Willcocks wrote in a 2015 Harvard Business Review article. ***“Calling it robotic, however, emphasizes the utility of a machine that can stand in for a worker and handle disparate, discrete chores.”***

RPA differs from classic business process automation in two key ways: people with business process and industry expertise, but no programming experience, can start automating processes with RPA tools with only a few weeks of training. Also, RPA requires few changes to the underlying back-end systems. Such a lightweight approach to automation lowers the threshold of processes worth automating. ***“In general, early adopters of RPA find that automation radically transforms operations,***

delivering much lower costs while improving service quality, increasing compliance (because everything the software does is logged), and decreasing delivery times,” Ms. Lacity and Mr. Willcocks wrote.

The article cites Telefonica O2’s use of RPA technologies as a concrete case study. Using only four people, the UK mobile communications provider deployed over 160 software bots to process between 400,000 and 500,000 transactions each month, yielding a three-year return on investment of over 650%.

The authors concluded that RPA is most suitable for high-volume, highly standardized, mature processes that can be well described by a set of rules, and is particularly worth considering in situations where increasing the speed and accuracy of a process will leave outsized benefits. Since RPA only requires access to the presentation layer of the back-end applications, it can readily run on any in-house platform or cloud-based system. Compliance risks are minimal because every action executed by an RPA bot is logged and thus auditable.

According to a 2017 Forrester Research report, the RPA market is expected to grow from \$250 million in 2016 to around \$3 billion in 2021.

Most jobs involve a number of different tasks or processes. Some are more amenable to automation because they are highly structured in nature and don’t require higher-order human skills. But just because tasks have been automated, that doesn’t mean that the whole job has disappeared. To the contrary, automating those parts of a job will often increase the productivity and quality of workers by complementing their skills with computers and enabling them to focus on those aspects of the job that most need their attention. As cost barriers fall, workplaces will naturally gravitate toward teams of humans and robots working together to accomplish goals—each assigned the tasks for which they are ideally suited, Dr. Lacity and Dr. Willcocks write. RPA is one automation tool, but not the only one, that will help to bring about this future of operations.

The next step for RPA is artificial intelligence. A recent study of over 150 companies involved in AI-based projects found that over 70% of the projects were adding AI capabilities to their existing processes. RPA developers also view AI as the next stage in the evolution of RPAs.

“As cognitive intelligence tools like IBM’s Watson are adopted, those will be game changers, too,” Dr. Lacity and Dr. Willcocks write. Combining those technologies, they say, may allow knowledge workers pursuing a creative task to call on robots to do supporting work, boosting overall productivity. ***“In this way, contrary to today’s worst fears, robotics could facilitate the rise, not the demise, of the knowledge worker.”***
