



INSTITUTE FOR
ROBOTIC PROCESS
AUTOMATION

Leveraging the Economic Benefits of Intelligent Automation

Created by the Institute for Robotic Process Automation in association with arago

*Transforming IT and Improving Business
Outcomes Through Intelligent Automation*



arago
the automation experts

Thirty years ago, noted author and business consultant Michael Porter sent a strategic warning to organizations in all industries and geographies: Find ways to use information and IT resources more strategically, or risk falling behind your competitors. In particular, he wrote about the importance of technology in building and enhancing an organization's "value chain" without relying so extensively on human capital for routine tasks.

"(The) technological transformation is expanding the limits of what companies can do faster than managers can explore the opportunities," he wrote in the *Harvard Business Review*. "The new technology substitutes machines for human effort in information processing."¹

Three decades later, Porter's comments are more appropriate than ever. During that time span, companies in such diverse industries as travel (American Airlines and Expedia), financial services (Citibank and J.P. Morgan Chase), retailing (Wal-Mart and Metro), e-commerce (Amazon and Etsy) and business services (FedEx) have used information technology to gain competitive advantage. And yet, the IT industry still is pushing hard—harder than ever, in fact—to use IT assets more strategically.

Few organizations—even highly successful ones—have been able to increase IT spending fast enough or significantly enough to match the growing demand for IT in all aspects of the business. The more information that was created by employees, trading partners and customers, the more business opportunity it represented—and the more complex it became. Then, add in issues such as compliance, legal discovery, virtual workforces and globalized economies. IT inevitably reached a breaking point in its ability to meet even routine requirements, let alone become a strategic asset for organizational improvement.

¹ "How Information Gives You Competitive Advantage," *Harvard Business Review*, July 1985

Enter IT automation.

Early iterations of IT automation, typically in the form of shell-based scripts and run books, undoubtedly helped alleviate some of the pressure. But new challenges and additional information-based initiatives have arisen, demanding even more from badly stretched IT departments. It's amazing to realize that organizations still typically spend 70-80% of their IT budgets on routine, repetitive activities, carried out by IT staff. Clearly, new thinking was needed to come up with a better allocation of IT budgets that shifted spending priorities from IT staff handling "keeping the lights on" activities and allocated funds instead to allow IT to help improve an organization's competitive positioning and strategic goals.

Fortunately, new approaches and tools have emerged that are allowing organizations to shift the budgeting and spending models away from maintenance activities and toward competitive advantage. At the heart of this trend is intelligent automation, which uses autonomies—machine learning, in essence—to learn from human experts, and then apply that knowledge quickly, reliably and cost efficiently for a wide range of system operations.

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The Economic Realities of IT

It should come as no surprise that far too many organizations still allocate budgets for "support" activities such as IT on rigid formulas, usually tied to percentage of revenue. Industry research indicates that most mid-sized and larger enterprises typically spend between 4-6% of revenue on IT.

The problem is that too many organizations still budget this way, rather than on the basis of an "investment" strategy where IT funding is viewed as just as critical to the company's success as hiring 10 more salespeople or doubling the R&D budget. In fact, even as the global economy has

recovered from the 2007-2009 “Great Recession,” IT spending growth has only inched ahead. Computer Economics says total IT spending will increase only 3% in 2015 compared with 2014.² In particular, notes Computer Economics, capital expenses are being slashed across the board, while IT hiring has failed to keep pace with the growing demand for new applications and services.

Another reality is that larger, growing organizations tend to budget lower percentages of revenue on IT, even if the absolute dollar spending continues to go up. That might placate the corner office (especially the CIO who wants to maximize earnings per share for the investment community), but it does little to address the fact that pressures to have IT do more—not less—are increasing on all companies, whether they are in growth mode or are in danger of contracting. This economic puzzle is highlighted by a growing library of data that points to an acknowledgement that organizations need to find ways around budget constraints. In fact, a study published by CIO Magazine notes that “lack of available budget to make desired investments” was the number-one barrier faced by respondents when attempting to address the increased pressure from outside and inside the company.³

Yet there is an important and disturbing paradox. While IT budgets and hiring are under significant pressure, CEOs and CIOs are far from satisfied with their organizations’ ability to use newer, digital technologies to stay ahead of their competitors.⁴

In fact, according to Computer Economics’ annual IT spending and staffing research study, most IT executives feel their budgets are inadequate to meet the needs of the business.⁵

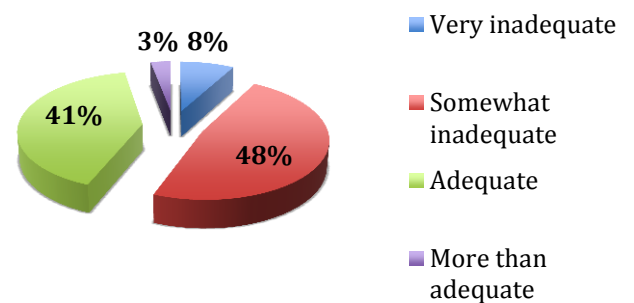
² “IT Spending Growth in 2015,” Computer Economics, July 2015

³ “Managing Today’s Complex Technology Changes,” CIO Magazine, May 2014

⁴ “2015 CIO Survey and CEO Survey,” Gartner Inc., April 2015

⁵ “IT Spending and Staffing Benchmarks 2015/2016,” Computer Economics, July 2015

Adequacy of Current IT Operational Budget to Support the Business



Source: Computer Economics

The end result of this push-pull battle between organizations wanting their technology to do more and their reticence in allocating enough budget for technology tools and IT manpower: stalemate. Organizations continue to rely heavily on legacy processes, including reliance on manual IT work, to handle the vast majority of “keeping the lights on” activities, leaving scant resources available to build, deploy and refresh technology solutions that improve an organization’s competitive positioning and business outcomes.

A New Economic Model for IT

In order to bridge this yawning gap between organizational demands on IT for applications and systems that deliver transformative capabilities and financial and manpower constraints, IT and business executives have turned to intelligent automation. This breakthrough capability provides operational and strategic advantages that are light-years ahead of earlier automation tools, which depended heavily on hand-coded scripts and rigid run books to automate some traditional manual IT tasks.

Organizations have been turning to intelligent automation in order to speed the transition away from IT labor dedicated to routine tasks in favor of machines that learn from human experts, referred to as autonomies.

This use of autonomics has proven to be an effective economic lever in several ways:

- First, intelligent automation aligns tightly with organizations' decisions to move away from capital expenditures and toward operating expenses.
- Second, it allows existing IT staff to focus less on routine maintenance and tactical activities such as processing help desk tickets or doing software patches, instead devoting more time to new application development and business analysis in collaboration with business groups.
- Third, it cuts down dramatically on time-consuming and budget-sucking actions such as downtime, human error and compliance missteps by letting intelligent machines do much of the work. The upside here, of course, is that machines don't take vacations, don't get sick, don't have personal problems that seep into office hours and don't suffer the many other frailties that beset humans and impact organizational performance.

As a result, the much-desired goal of "doing more with less" is more likely to be achieved because organizations don't have to hire more and more IT generalists to handle low-value tasks, while pushing strategic initiatives to the back burner because they are overburdened with routine and often-rote processes.

How AutoPilot is Making a Difference

Shifting the economic model for IT automation not only requires that IT and business executives rethink their investment priorities, but also the way to unleash economic advantage in new automation tools. One supplier that should be on your short list is arago, a leader in the fields of autonomics and intelligent automation.

arago's intelligent automation tool, AutoPilot, dramatically changes the equation for deriving

economic benefit from automation. As a knowledge-based, enterprise automation tool, AutoPilot transforms the execution about 90% of all IT service management functions from traditional labor-based activities to machine-based execution. This provides a 180-degree shift in the focus of the vast majority of routine IT functions from expensive manual labor to cost-efficient autonomics.

AutoPilot is designed to optimize IT operations in several different areas, including quality, flexibility and risk/compliance. For instance, AutoPilot improves quality by reducing, and in many cases fully eliminating, communications redundancy, since knowledge is retained and integrated from among every group within the enterprise. Flexibility is increased by relying on human-driven knowledge transfer instead of on hard-coded rules that must be reprogrammed in order to accommodate changes in priorities, processes or strategic initiatives. And, using human experts with a wide and deep knowledge of regulations to teach AutoPilot facilitates risk and compliance. In turn, the system makes decisions based on a complex matrix of regulatory and corporate governance requirements, but also spots and reduces potential risks before they become problematic.

But it is in cost reduction where AutoPilot stands apart from legacy automation tools. By utilizing computers to carry out repetitive IT service activities rather than dedicating expensive professionals to handle relatively low-value activities, AutoPilot allows IT organizations to focus their employees on the highest-value activities. This is particularly important in fast-growing organizations, or enterprises where the ability to scale service delivery often necessitates hiring permanent or temporary staff.

Credits:

Created by the Institute for Robotic Process Automation in association with arago's Vice President Technologies, Viktor Voss.

About IRPA



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The Institute for Robotic Process Automation (IRPA) is an independent professional association and global network for the buyers, sellers and influencers in the robotic process automation/ automonics arena. We are considered to be the go to/independent source for market trends, best practices, case studies, events, assessment services and channel opportunities. To learn more and opt into our free global community visit www.irpanetwork.com.

About arago



arago GmbH, is a high-tech company driven by the spirit of German engineering. Founded by computer scientist Chris Boos in 1995 and based in Frankfurt with offices in the US and UK, arago offers intelligent automation solutions for enterprise IT. arago's key product is AutoPilot, a self-learning enterprise automation software, which was developed over the last 20 years. The software allows companies to automate the operations of their entire IT stack from infrastructure to business processes. Thereby it solves 90 percent of all IT tasks.

This helps companies in three crucial ways: first to reduce IT costs of 30 to 50 percent, second to improve service quality and third to significantly increase data security. AutoPilot enables IT to become a competitive advantage in the digital age. KKR, a leading global investor, announced its support in October 2014 for arago's business development and international expansion. To learn more about arago please visit:

www.arago.co

www.autopilot.co