

The Outsourcing Unit Working Research Paper Series

Paper 16/01 Robotic Process Automation: The Next Transformation Lever for Shared Services

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January 2016

Research on Business Services Automation

Research Objective:

The academic researchers at the Outsourcing Unit (OU) aim to assess the current and long-term effects of business services automation on client organizations. While using software to automate work is not a new idea, recent interest in service automation has certainly escalated with the introduction of new technologies including Robotic Process Automation (RPA) and Cognitive Intelligence (CI) tools. Many potential adopters of the new types of service automation tools remain skeptical about the claims surrounding its promised business value. Potential adopters need exposure to actual and realistic client adoption stories. Academic researchers can help educate potential adopters by objectively researching actual RPA and CI implementations in client firms, by assessing what the software can and cannot yet do, and by extracting lessons on realizing its value.

Research Outputs:

As of December 2015, we had just submitted our book, *Service Automation: Robotics and the Future of Work,* to the publisher. This book captures a year's worth of learning about service automation based on a survey, in-depth client case studies, and interviews with service automation clients, providers, and advisors. The lessons learned address defining a service automation strategy, launching successful service automation initiatives, preparing the organization for the changes service automation induces, and building enterprise-wide service automation capabilities. We continue to study service automation, and this working paper focuses on the adoption of RPA in shared service organizations and presents new research, cases and lessons that complement the book's findings.

Acknowledgements:

"Robotic Process Automation: The Next Transformation Lever for Shared Services" by Mary Lacity and Leslie Willcocks is the fifth working paper delivered from this research project. We appreciate and thank the customers, providers, and advisors who were interviewed for this research. We also acknowledge and thank Blue Prism as the launch sponsor of this research.

About The LSE Outsourcing Unit:

The Outsourcing Unit is part of the LSE, acknowledged as a world leading social science university, and in business and management studies ranked first above Cambridge and Oxford Universities in a 2014 Research Assessment Exercise. The OU draws upon a 2,500 plus case study database covering all major economic sectors and countries, and provides independent, objective, rigorous, and timely research and reports disseminated to business, government and third sector organizations, and published widely in adacemic and practitioner outlets. Previous research and published work can be reviewed on www.lse.ac.uk/management/research/outsourcingunit

Robotic Process Automation: The Next Transformation Lever for Shared Services

Introduction

In this report, we examine how Robotic Process Automation (RPA) is being deployed in shared service organizations as the next transformation lever beyond centralization, standardization, optimization, relocation to low cost areas, and use of enabling technologies. Although shared service organizations have long-deployed enabling technologies like standard Enterprise Resource Planning (ERP) packages, self-service portals, and low-level automation tools like scripting and screen scraping, RPA is a new breed of software that allows enterprise-safe automation of processes. Early adopters we studied have achieved multi-faceted business results from deploying RPA, including FTE savings, doing more work with fewer resources, increased service quality (because robots execute exactly as configured to do so), increased service delivery speed, and more satisfied employees because their jobs are refocused to more interesting tasks requiring judgment, empathy and social interactions. These business benefits, however, can only be achieved with proper governance. Our research has identified the best practices for achieving business benefits, which include an executive-sponsored service automation strategy, control by business operations/shared services, talent redevelopment, and change management to prepare the organization for changes caused by automation.1

Shared services are a particularly ripe area for achieving business benefits with RPA. Our research found that RPA was best suited to replace humans for so called "swivel chair" processes. These are processes where humans took inputs from one set of systems (like email and spreadsheets), processed those inputs using rules, and then entered the outputs into systems of record like ERP or Customer Relationship Management (CRM) systems. Shared services are rife with such "swivel chair" processes because they receive inputs from multiple business units, various suppliers, and legions of external customers. (This situation is further explained below in the section, "Shared Services and the Intractable 'Swivel Chair' Problem.")

Heads of shared services who first hear about RPA frequently ask, "What is RPA and how is it different from other automation tools?" In this report, we first explain three distinctive features of RPA. Next, we explore the context of shared services, including a brief history of shared services, current trends, and why RPA is worth considering for shared services.

Next, we present two mini-cases of actual RPA adoptions in shared services organizations, representing the healthcare and insurance industries. We extract four common themes that arose from the two cases as well as from other interviews we conducted pertaining to locus of adoption, launch projects, business value delivered, and future automation plans. We identified three governance lessons to realize business value: 1. Strategic service automation requires cultural adoption by the C-suite; 2. Imbed RPA capability into the business units and shared service functions; and 3. Rethink talent.

What is RPA and how is it distinctive?

In this section we repeat, for new Shared Services readers, some of the explanation of RPA provided in an earlier paper. Although the term "Robotic Process Automation" connotes visions of physical robots wandering around offices performing human tasks, RPA is a software solution. In RPA parlance, a "robot" is equivalent to one software license. For business processes, the term RPA most commonly refers to configuring the software to do the work previously done by people. Although several service automation providers are calling their software "RPA", to us, RPA has three distinctive features compared to other automation tools like Business Process Management (BPM), scripting, and screen scraping:

- 1. RPA is easy to configure, so developers don't need programming skills. RPA interfaces work a lot like Visio, by dragging, dropping and linking icons that represent steps in a process. As users drag and drop icons to automate a process, code is generated automatically. Business operations people with process and subject matter expertise but with no programming experience can be trained to independently automate processes within a few weeks. This distinguishes RPA from BPM solutions because BPM requires programming skills.
- 2. RPA software is non-invasive. The second distinctive feature is that RPA technology sits on top of existing systems—without the need to create, replace or further develop expensive platforms. RPA software accesses other computer systems the way a human does—through the user interface with a logon ID and password. RPA software accesses other systems through the presentation layer, so no underlying systems programming logic is touched. Furthermore, RPA products do not store any data. This distinguishes RPA from BPM solutions because BPM solutions are invasive, create new applications, and access business logic and data access layers in the IT architecture stack.

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¹ See Willcocks, L., Lacity, M. and Craig, A. (2015). *The IT Function and Robotic Process Automation*. LSE Outsourcing Unit Working Paper 15/05, September.

3. RPA is enterprise-safe. RPA is a robust platform that is designed to meet enterprise IT requirements for security, scalability, auditability, and change management. RPA robots are deployed, scheduled and monitored on centralized, interconnected IT supported infrastructure to ensure transactional integrity, compliance with enterprise security models and continuity of service in line with the enterprises' business continuity plans. This distinguishes RPA from earlier generations of scripting and screen scraping which users locally deploy from their desktops. Screen scrapers, for example, are an older technology that recorded users as they moved fields around systems. Screen scrapers only understood that a field located in one specific position on one screen should be moved to another specific position on another screen. If the field was moved without reconfiguring the screen scraper, the technology would no longer function. In contrast, RPA software does not rely on X and Y coordinates but instead finds data fields through Html, Java Access Bridge, and surface automation for Citrix. The Head of Global Financial Services for a large Financial Services Company explained it this way: "Well I think what distinguishes RPA from scripting and screen scraping, it's a level above. I describe it as a more integrated, more holistic solution. It's basically taking the products of workflow, process mapping, super macros, putting them into a nice thin client that sits on top of your platforms and basically automates the keystrokes of an employee."

Potential RPA adopters will need to verify that the tool they are considering meet these three distinctive features. A number of advisors have reported evidence of "RPA washing". The terms "RPA washing" refers to the phenomenon of companies spending more resources on advertising and marketing claiming to have new RPA capabilities than actually building new automation capabilities. Derek Toone, Managing Director of Robotic Process Automation Alsbridge, said "RPA washing absolutely occurs – not only from the software vendors, but also the outsourcing providers. Old tools being paraded under a new banner – sometimes they've at least been updated to mimic RPA functionality but even so they've yet to be tested and refined over hundreds of implementations."

From our viewpoint, as at December 2015, there seems to be a three-lane product highway to service automation using 'RPA'. The market conflates three types of products, and call all three RPA. We think it important to disaggregate what the market calls 'RPA' and distinguish between the product type in each lane. We do this below, making critical comments on each:

1. Macros, scripting and screen-scraping (record and replay). These products offer fast record functionality. The product records what a user does and captures keystrokes and mouse clicks. Packaging around this capability allows the software to be stored in a

database and provides additional administration controls. However, the software "robot" does not know what it is doing in any enterprise context. It has a set of actions which it performs when called upon (either by a human, or some process trigger). It then simply replays the keystrokes. This is "fire and forget" in that the "robot" does not have a "process state" view of where it is. This makes it difficult to manage in a large implementation. It does not offer re-use (it's a set of key strokes), it doesn't know why a process could go wrong and it cannot be re-purposed (it must re-recorded). It works best as a fast and fine desktop assistant.

- 2. RPA (Robotic Process Automation). We have already described the distinctive attributes of RPA (see above). These products involve configuring a software robot to do the work previously done by people. The "robot" interacts with a computer-centric process through the user interface of the software supporting that process. RPA processes structured data.² RPA software is best suited to replace humans in so-called "swivel chair" processes/sub-processes. RPA is designed to be consistent with IT governance, security, architecture and infrastructure requirements, and can be quickly implemented, re-used, and scaled. RPA in this form can create multi-purpose robot teams and be grown into an enterprise capability.
- 3. SDKs (software development kits). These are different again in offering IT development teams the ability to build a robot according to their own design. These products offer the opportunity to develop a localized, agent assisted robot focusing on individual scripts and offering localized transaction support. SDKs use a desktop security model, and depend on local roles and user permissions. They need to be built by experienced development teams aware of the pre-requirements in terms of methodology, best practice and cultural components of a full service robot. SDKs are designed for building single robots not robot teams, or 'virtual workforces' as some call them. Therefore SDKs do not offer the design opportunity for synchronization, multi-purposing, load balancing, multi-configuring, audit and management information functions needed to run, and available from robot teams.

Overview of Shared Services

According to Accenture, the definition of shared services is "the consolidation of support functions (such as human resources, finance, information technology and procurement) from several departments into a standalone organizational entity whose only mission is to provide services as efficiently and effectively as possible." Mature shared services organizations

are stand-alone global business entities with standardized processes, service level agreements, user chargeback, and high-performance, "front office" cultures that service multiple departments.⁴ According to a survey of 270 respondents reporting on 718 shared service centers, finance/accounting (93%) is the functional area most commonly moved to shared services, followed by human resources (60%), information technology (48%), and supply change management (47%).⁵ Although IT organizations have not adopted shared services as widely as finance and accounting, reports indicate that IT shared services is growing at a faster rate.⁶ Indeed, successful management of IT shared services was listed as one of the seven habits of effective CIOs.⁷

The Global Financial Crisis in 2008 intensified the pressures for organizations in both the public and private sector to reduce costs, shed headcount, and to do more work with fewer resources. Shared services were seen as a powerful practice for relieving these pressures. One survey claimed that 90 percent of companies had created shared service entities by 2014. Shared services offer the promise of lower costs, tighter controls, improved service levels, and scalability. Among this list of benefits, cost reduction was and is the most important driver of shared services. Early adopters of shared services reported substantial cost savings. General Electric—recognized as the first leader of shared services—implemented shared financial and accounting services in 1984 and reduced staff by 30%. DEC created shared financial services in 1985, and reduced finance staff by 450 and reported annual savings of \$40 to \$50 million. Reuters created shared financial services in 2006 and reduced its staff by 47%.

Some organizations even generate revenues from shared services. Among the 270 companies responding to a survey on shared services, 15% indicated that their shared service organizations serviced external clients.¹² More recently, Accenture reported that some of their clients with shared services increased gross sales by as much as five percent, improved gross margin between 10 and 20 percent, and reduced customer service costs by 30 percent.¹³

Shared services often start with simply consolidating a single service in a single location. The next evolution typically entails adding more services from different functions. One survey found that 47% of respondents had shared services for more than one functional area. Amoco was one of the first companies to create business shared services across multiple functional areas. Senior Management reasoned that since these functions were addressing the same set of internal customers in the same business units, why perform them individually for each business unit? By 2011, companies that had followed a multi-

functional approach like Amoco's included Procter and Gamble, Monsanto, Allied Signal, and Rhone-Poulenc. A recent survey of more than 1,000 shared service centers (SSC) by Deloitte found that SSCs with more than three functions have increased by more than 40 percent over the last two years.¹⁶

Shared services are not necessarily an insourcing option—shared services may involve various levels of outsourcing from out-tasking to strategic partnerships. Organizations may engage providers at any stage of the shared services implementation. Unilever, BAE Systems, and Lloyds of London engaged providers to help do the transformation, while Procter and Gamble engaged a provider after they had a well-functioning shared services organization.¹⁷ Thus the choices are many, with many options along the continua of silos versus cross-functional, local versus global, and insourced versus outsourced.

Studies have shown, however, that not all organizations achieve the full benefits they expect from shared services. For example, in a survey of 210 senior managers, IBM found that the results of shared services have been "mundane rather than magical". 18 Another study of 140 executives in North America and Europe found that actual benefits were less than expected benefits in the majority of cases. Thirty-three percent of respondents reported no cost savings, and the average cost savings among the remainder was 14%.¹⁹ disappointing outcomes included: promised headcount reduction did not materialize, headcount reductions were so severe that service deteriorated, customer-centric orientation and other standardization impediments gave way to customized services, and increased service bureaucracy.²⁰ In one study, the average time to fully implement shared services was two years in Europe and four years in North America. In another study, the overall average payback period across the world was 2.3 years.²¹ Once established, it took some organizations from one to three years to educate internal customers about the services it offered.²² Deloitte assessed the most common obstacles to success and found the top three reasons to be resistance to change (60%), limitations of existing systems (44%), and lack of executive commitment (40%).²³

Given the long implementation times and obvious risks of achieving only mundane outcomes, senior executives need advice on how to realize the full potential of shared services by accelerating the adoption of promising trends.

Trends in Shared Services

The biggest shared services trends during the last five years have been (1) global business services, ²⁴ (2) public sector adoption²⁵, (3) focus on business outcomes and (4) digital transformation, including Robotic Process Automation.²⁶

Global business services

Instead of just multiple-services, the trend has been to create global business services, with several functional areas such as finance, accounting, human resources, and information technology unified into one global shared services organization. Organizations increasingly adopt business service centers that service multiple countries. Global delivery centers are located mostly in the United States, China, United Kingdom, India, Mexico, and Brazil.²⁷ As far as location attractiveness, Cushman & Wakefield suggest that Vietnam, the Philippines, Bulgaria, Romania, and Peru are the best locations for shared services and BPO in their 2015 report.²⁸ According to Deloitte (2015), some shared services centers skip over the single-function, single location center model and move right to global business services, which it defines as "as multi-function, multi-region and multi-business led by a single GBS leader." That same survey found that sixty-two percent of global business service heads report directly to the CEO or CFO and are typically in charge of continuous improvement and global process ownership.²⁹ Global adoption brings great opportunities for cost efficiency, but language, responsiveness, and local compliance are huge issues to consider in a global environment.³⁰

Public sector adoption

The second trend is public sector adoption.³¹ Shared services are happening at all levels of government—federal, state, county, council and cities—and in many countries including notably the United States, United Kingdom, Germany, and Sweden.³² According to a survey by Accenture, 66 percent of senior government executives in 13 countries reported they have created or are in the process of creating shared services.³³ A survey by Oracle found that 32% of state and local governments are in some stage of shared services planning or implementation.³⁴ Local governments are also adopting shared services. US county governments like Cumberland County, Cape May County, Atlantic County share services such as health services and police and fire dispatching.³⁵ UK County Councils of Cambridgeshire and Northamtonshire share services for pension administration and investment services.³⁶ Clearly, better services are required in areas such as education,

health care, taxation, welfare, and citizen support. This has helped shared services to become more widely accepted in the public sector, but governments face considerable obstacles. Government is one of the most difficult environments in which to implement shared services due to lack of necessary management skills, insufficient funding, lack of benchmarks, and resistance from unions and agencies.

Focus on business outcomes

The third trend is running global business services more as a business and less as a cost center. This means that success measures shift to outcomes with more business impact, such as switching from measures like "time to fill an open position" to "time to proficiency" for an HR hiring service, from "days to close the books" to "capital efficiency" for a financial service, and from "invoice accuracy" to "customer retention" for an accounting service. Pricing models also change from transaction pricing (e.g., cost per invoice, cost per hire) to more business-based pricing like weighted average payment terms (WAPT).

Digital transformation

The fourth trend is digital transformation, where global business services organizations apply digital technologies like Social, Mobile, Analytics, and Cloud (SMAC) to deliver simplified, seamless experiences to internal users, employees, suppliers and external customers. Extensive use of such digital technologies is expected to support the implementation of advanced shared services models across a broader range of business functions over the next several years, according to research from Accenture and HfS Research. In their study, "Disrupt or be Disrupted: The Impact of Digital Technologies on Business Services", digital technologies, including software-as-a-service (SaaS), big data and analytics, cloud and mobile were seen as critical transformers of global shared services. Nearly all of the 115 organizations they surveyed agreed that one of the leading reasons for adopting digital technologies was the need to improve integration of processes and operations across functional boundaries. The report notes that other common drivers included improved productivity, cost reduction and improving competitiveness.³⁸ Consumerization is also huge—people want to access shared services from their own devices. Automation is also accelerating, with many shared services organizations adopting Robotic Process Automation (RPA), virtual assistants, and cognitive computing.³⁹ We see automation as the next important transformation lever for shared services.

Transforming Shared Services with Service Automation

Shared services are supposed to deliver services that are low cost, but cost efficiency must be balanced with other performance imperatives such as service excellence, business enablement, scalability, flexibility, security, and compliance (see Figure 1). Achieving a high-performance shared services organization is a daunting process, particularly because shared services are often assembled from decentralized units with variable process maturity and different cultures and cost structures. From 25 years of research, we learned that disparate, low-performing back offices can be transformed to high-performing shared services through five main transformation levers: **centralize** physical facilities and budgets, **standardize** processes across business units, **optimize** processes to reduce errors and waste and to simplify the service portfolio, **relocate** from high-cost to low-cost destinations, and **technology enable** with, for example, self-service portals.⁴⁰ Further developments in automation, including software robots, have added a sixth lever.⁴¹

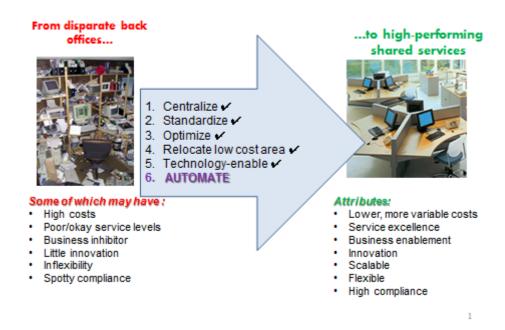


Figure 1: Six Levers for Transforming Shared Services

For the past 15 years, large companies have widely adopted the first five transformation levers to the point that they have become *institutionalized*—that is, an accepted and normal part of managing shared services. Shared service heads are looking for the next transformation lever, and for many shared services organizations, automation is it.

Consider one of our case studies, Telefónica O2.42 Telefónica O2 was the earliest adopter of RPA we studied, having launched back in 2010. It had already deployed the first five levers over ten years. By 2005, there were 200 Full Time Equivalents (FTEs) working in India, while 98 FTEs remained onshore in the UK. By 2009, the headcount in India swelled to 375 FTEs and headcount in the UK was reduced to 50 FTEs. Telefónica O2 was reaching the ceiling on extracting any more value from offshoring; there was not that much more work that could be moved to India. Next, Telefónica O2 further optimized and eliminated processes, gaining another 10 percent savings. Automation became its next transformation lever. As of April 2015, Telefónica O2 had deployed over 160 "robots"—i.e., RPA software licenses—that process between 400,000 and 500,000 transactions each month, yielding a three-year return on investment of between 650 and 800 percent. It also reported reduced turnaround times from days to just minutes. Subsequently, customer "chase up" calls were reduced by over 80 percent per year because fewer customers needed to inquire about the status of service requests. Scalability was another benefit—its robotic workforce could be doubled almost instantly when new products were about to be launched—and then scaled back down after the surge.

For most shared service organizations, only in the last three years has the real power of service automation been unleashed. Furthermore, it is important to understand that service automation comprises a number of different technologies with, often times, puzzling terminologies. While conducting this research, for example, the clients, providers, and advisors used the following terms to discuss service automation: scripting tools, screen scrapers, robotic process automation (RPA), cognitive intelligence (CI), machine intelligence, artificial intelligence, cognitive learning technology, autonomic platforms, cognitive computing, and business process management (BPM) as some common examples. To help clarify the service automation space, a number of advisory firms have organized the variety of tools along a service automation continuum. HfS, for example, offers a rich picture of what it calls the Intelligent Automation Continuum. HfS maps the service automation tools based on the character of the process and the character of the data. As another example, The Everest Group usefully distinguishes the tools by its "intelligence", generating three classes of tools: rules-based automation, knowledge-based automation, and artificial intelligence.

Using the client examples we gathered from our research, we thought about the service automation as a Cartesian plane with the volume of work and degree of work complexity as a good way to classify the examples of service automation we studied (see Figure 2).

Process complexity increases as the data and rules become less structured, as the number of steps increases, and as the amount and variety of data increases.

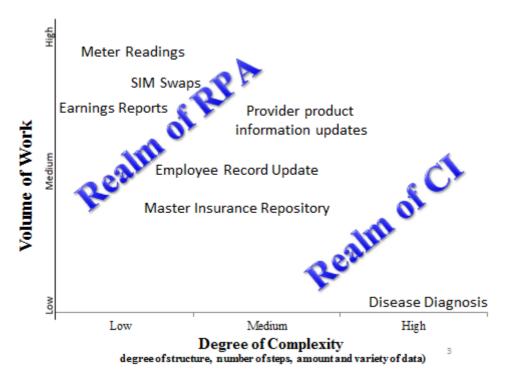


Figure 2: Service Automation Landscape

The majority of our service automation case examples in our research adopted Robotic Process Automation. These clients adopted RPA for processes characterized by a medium to high volume of transactions and a low to medium degree of process complexity. Some specific processes that were automated using RPA included corporate earnings reports by the Associated Press, customer meter readings by a major UK utility, SIM swaps—the process of replacing a customer's existing SIM card with a new SIM card but keeping his or her existing number—at Telefónica O2, master insurance repository updates at Xchanging, and supplier product information updates at the VHA.⁴⁴ In this report, we also discuss specific examples of employee record updates at Ascension Ministry Service Center and pension enrollment at an insurance company.

In contrast to RPA, Cognitive Intelligence, defined here as software that finds patterns among a vast amount and large variety of data, is well suited for highly complex tasks, typically with low daily volumes (as of 2016). From what we have seen, IBM's Watson is the "übermaschine" in this CI class. One application of IBM's Watson is cancer disease diagnosis—a highly complex task with perhaps hundreds of thousands of inputs with various levels of structure, but with only a few dozen transactions per day. As of 2013, Watson had

access to over two million pages from medical journals, more than 600,000 pieces of medical evidence, and 1.5 million patient records.⁴⁵ Watson has an unparalleled natural language interface and ranks its top answers with confidence intervals and the ability for humans to query Watson about where and how it got those answers.

The capability differences between RPA and CI are reflected in its prices and maturity. RPA will certainly affect the economics of shared services delivery. One source estimates that the salary of a shared services/business process worker may be \$60,000 onshore and \$23,000 offshore, but RPA software performing the work of one full time equivalent (FTE) may cost as little as \$7,500. 46 As at late 2015 RPA was still only at the early majority stage of adoption. Meanwhile, more advanced forms of CI were still either being piloted at client sites, or still on the drawing board for future commercial development. CI's price tags reflect its stage of maturity and its ability to deal with highly complex tasks—with implementations costing millions of dollars as of the end of 2015. Future evolution would seem to begin with RPA that is optimally used with high volume, standardized, rules-based mature stable processes where costs are clear and business value well understood.

There is presently much hype and fear surround service automation tools like RPA and CI, so our aim has been to expose potential adopters to actual and realistic client adoption stories. Academic researchers help educate potential adopters by objectively researching actual automation implementations in client firms, by assessing what the software can and cannot yet do, and by extracting lessons on realizing its value. In this report, we focus on two RPA adoptions in shared services organizations in some detail. The first example covers a shared services center in the healthcare sector housed within the United States. The second example is a case of global shared services in the insurance sector. We also provide additional insights from other cases we've studied on RPA adoption in shared services. (See our forthcoming book, *Service Automation: Robotics and the Future of Work*, for more detailed client adoption stories.) Many of these cases show that RPA is a good fit for shared services because it is an inexpensive way to automate "swivel chair" processes.

Shared Services and the Intractable "Swivel Chair" Problem

The term "swivel chair" processes refers to a human being sitting in a swivel chair at a workstation and taking in work from many electronic inputs (like emails and spreadsheets), processing them by accessing more systems, and then updating the completed work to yet other systems, like ERP or CRM systems. Although Figure 1 shows an idealized

progression of shared services transformation beginning with centralization, standardization, and optimization before automation, the reality for many shared services organizations is that it is economically, strategically and/or politically difficult to require decentralized business units to pass uniform inputs to a shared services organization, let alone suppliers and external customers. Thus, many workers in shared services "swivel" around their desks, just taking multiple inputs from multiple sources, cutting and pasting them into standardized forms before processing them and preparing outputs for systems of record. This is a reality in many shared services organizations (see Figure 2).

Non-standard inputs from business units, employees, suppliers, and customers: Standard Systems of Record: ERP CRM HRM Legacy Shared Services Employee Copyright © Lacity and Willcocks 2015

Figure 2: The Shared Services "Swivel Chair" Problem

How can shared services overcome the "swivel chair" problem? Shared services could ask their IT departments to build Application Program Interfaces (APIs), but this becomes another costly IT project. One client we interviewed said, "Big companies, global companies, have lots of different hand-offs between systems and inevitably it is difficult to cost justify spending all that money automating something in a core system." This view was echoed in a report by the Association of Chartered Certified Accountants, "One of the challenges we have is that any investment in IT to automate and improve efficiencies are just not there because the level of investment is prohibitive."

RPA, as we learned from the cases below as well as from other cases in our book, is an inexpensive and safe way to automate disparate inputs. RPA is inexpensive (see prices above), but more importantly, RPA is easy to use, so shared services workers—typically those with business process expertise—can be trained to use the software. RPA was most frequently owned by business operations in companies we studied. A senior executive described RPA's role in freeing humans from "swivel chair" processes:

"Global Business Services takes data from one system, we fill the cracks between systems, especially in companies with highly legacy platforms that don't have nice crisp ERP systems that talk to each other. Where RPA comes in is it offers to automate that sort of layer which our people do which is moving things between platforms. RPA is a more integrated, more holistic solution to taking the products of workflow, process mapping, super macros, putting them into a nice thin client that sits on top of your platforms and basically automating the keystrokes of an employee. If you think about what my teams, and any other shared services around the world do, then if all the systems were automated, you wouldn't need my function!"

According to James Hall of Genfour, "Users no longer have to go through complicated, long winded processes set out by IT. They could test something and give it a go."⁴⁸ Of course RPA, like any technology, needs to comply with a company's IT governance policies. We next tell two short stories and then we will return to a more thorough discussion of RPA as an effective solution to the "swivel chair" problem.

Case One: RPA at Ascension Ministry Service Center

Background

For the first case, we present the RPA adoption story of the Ascension Ministry Service Center (MSC). The MSC was launched in 2011. It is headquartered in Indianapolis, Indiana and provides hire-to-retire, record-to-report, procure-to-pay, and direct support services. The work of the MSC supports 22 Ascension Ministries, 135 acute care hospitals and 120,000 associates in their efforts to lead healthcare's transformation. The MSC was created to reduce costs without impacting care by sharing services—leveraging size and scale was very important to its mission of keeping costs contained.

Ascension, the largest non-profit health system in the U.S. and the world's largest Catholic health system, is dedicated to transformation through innovation across the continuum of

care. Five years ago, Ascension decided to spend a billion dollars to sort through thousands of ways it did business, identifying inefficiencies and standardizing processes. That landmark initiative, according to A.J. Hanna, Sr. Director Operations Support, resulted in \$3 billion in savings, freeing up resources to further its ability to invest in patient care that serves all persons, including the poor and vulnerable.

The MSC played a key role in that health care transformation initiative. In less than four years, the initial innovation of delivering shared services had moved to optimizing those services with robotic process automation, thus enabling more scale and leverage. As a shared service the MSC was under pressure to do more work with its existing staff. The MSC had already deployed many of the levers in Figure 1, and their RPA journey, launched in 2014, was added as another lever to deliver high-performance shared services. The MSC adopted Blue Prism in 2014 to help automate "swivel" chair processes. Automation improved the quality and response time of services and freed staff to focus on more value-added work.

Automation Adoption

For the MSC, the value of a shared service center is the creation of efficiencies and application of economies of scale. As an organization growing at a rapid pace, it constantly looks for avenues to make it more efficient and scalable while minimizing the need for incremental increases in staffing. With more growth forecasted, and the pressure increasing to provide more value, it knew that it had to look for alternatives to the current workflow processes. Lee Coulter, CEO, Joe Peri, COO, and other leaders had previously worked for organizations that had built in-house "virtual processors", so the concept of work automation was not new to them. What was new was the growing library of tools springing up that put process automation more firmly in the hands of Operations.

In 2013, A.J. Hanna and his team at the MSC started about an 18-month analysis of the available technology and how it might fit into the organization. They knew they needed a tool that was as flexible as possible in working with the technology stack that they utilized in the delivery of services. It was also important to them to be able to have centralized control over the any of the work done by the automation.

Hanna and his team developed a proof-of-concept test from a common process within the human resources service area, employee record updates. After they narrowed down the list of potential vendors, they invited them to walk through the building of the process with a

team of people who would be using the tool in the operations area. This allowed the MSC to assess how it worked with existing tools, how easy (or complex) it appeared to be for an end-user, and to compare the relative cost of entry for each tool The MSC selected Blue Prism as its first tool for deployment in RPA and is now taking advantage of multiple providers capabilities.

MSC's business value delivered

According to Hanna, "Service automation has delivered much in the way we would have expected after our discernment process." After choosing a solution, the MSC took a very measured approach to roll out to allow them the time to concurrently develop protocols and controls. They did this mostly by automating the many "swivel chair" activities that were a part of our work. Especially in the human resources and payables service areas, clients submitted custom data sheets that were being manually entered into the appropriate system. Specifically, Excel spreadsheets were sent to the MSC center from all the member hospitals and the MSC staff had to manually copy and paste updates from the spreadsheets to the HR system of record. The task was tedious. Not only did this take resources away from more meaningful work, but it also was more prone to human error.

These initial efforts provided the opportunity to train staff with practical work outcomes. In addition to developing the team's skill set, the MSC has been able to eliminate an estimated 16,000 hours of labor with only eight partial processes. Since many of the processes will always contain some component of human intervention, it also helped to introduce the operating areas within the MSC to how this type of automation could be integrated within their workflows.

The MSC was also able to realize improvements in quality for the work that had been automated. According to Hanna, "Robots are not subject to the distractions and loss of attention that can affect a human and cause error. Automating the work has virtually eliminated the re-work component within these processes. The quality of the transaction is now almost entirely based on the quality of the data provided by the client."

The results of these introductory initiatives demonstrated that moving into more complicated automations would provide the MSC with the labor savings needed to meet the goals of controlling incremental staffing increases, thereby improving the value proposition to Ascension.

Rethinking automation talent development

As of Fall 2015, the MSC was in the process of rethinking talent development for automation. According to Hanna, the primary learning was that automation adopters are better served by segregating the process of automation into distinct components. He said, "Our configuration team was gathering and writing business requirements, doing the configuration in the tool, doing the testing and validation, and completing all of our documentation requirements for each automation activity. While this provided the team with a great perspective on the end-to-end activity, it did not allow us to gain the efficiency of someone specializing in each of those functions." It also assumed that the skill sets to be effective at each stage of the automation lifecycle were transferable. The MSC started to dedicate the automation team members into business requirements and documentation specialists, process modeling specialist and configuration specialists. This specialization aims to increase their output by putting a specific focus on each of the stages of automation.

MSC's future automation plans

The Ministry Service Center has made an organizational commitment to automation. With the development of a center of excellence around automation, coupled with the wing-to-wing process assessments that were already underway, they have been able to integrate this technology into their continuous improvement culture. Hanna concluded, "It is our belief that automation is not just the newest fad or hot topic. Automation of work is not a new concept. The continued evolution of the technology and the relative ease of implementation into different types of work environments are changing the way business looks at these tools. Automation integration at the Ministry Service Center will not be just something we do, it will be the WAY we do what we do. Now that we have a good feel for robotic process automation, we are exploring how to incorporate the entire cycle of intelligent process automation into our work." The MSC is looking to use natural language processing as a next step on its journey and it has started deliberations on what tools are available in the market. The MSC also had preliminary conversations about what a full cognitive tool, like IBM's Watson, could offer in the delivery of services.

Case Two – RPA and Shared Services in the Insurance Sector Background

This case concerns the application of RPA in a major European insurance firm, anonymised by company request as the pseudonym, INSURE. As of Fall 2015, INSURE had four

individual business units covering General Insurance, Life, Healthcare and Investors. For several years, it had drawn upon shared Group resources in respect of Finance, HR, Procurement and IT. Each shared service function had a Head (e.g., Group HR Director), who also aligned with the head of that function in each business unit (e.g., Life HR Director). There was also a Group transformation team to manage any cross-Group, large-scale change.

Automation evolved over 2014/15, as a result of a management consulting recommendation for its General Insurance and Life businesses. A legacy environment of systems and processes had built up over many years. By 2013/14 there was a strong view, from a Group perspective, that INSURE could be more efficient. The recommendations across the key frontline business areas brought out a number of opportunities, and also a strong business case for automation across both General Insurance and Life. At that point, Group decided to invest significantly in robotic technology.

Robotic Process Automation — beginnings

RPA became, in 2014, a Group IT responsibility, while INSURE also created RPA roles within each of the GI and Life businesses. The transformation director, the GI and Life business units, together with IT put out a Request-for-Tender (RFT), which attracted eight suppliers. By applying the key criterion that the tool could be brought in-house, this was narrowed quickly to three. The Senior Automation Executive at INSURE explained, "We didn't want to pay a third party to do the job for us. We wanted to buy in the tool and then train our own staff, so that we could run it as much as we liked, and were not controlled by someone else's cost structure. We also wanted flexibility to redeploy in-house IT resources depending on the key demands within the business areas. For these reasons one supplier emerged as the clear leader (Blue Prism) and we got the contract agreed within four months."

There wasn't a normal proof-of-concept approach because the previous consultancy work made INSURE confident of the benefits. INSURE went straight to delivery and brought the provider into the IT teams. The IT teams got to look at it as a tool, its complexity, how RPA might be set up internally in terms of structure and governance, the capability needed, especially servers and the structure of the RPA team. Interestingly, the tooling and preparatory process work occurred while the contract negotiations were on-going.

Challenges for RPA in shared services

What were the biggest challenges implementing RPA into a shared services environment? In practice, RPA was simple to set up in a shared service IT function, the positioning and the product giving flexibility for quick scaling up and down, and for deploying resources, licenses and robots to match prioritized business unit needs. However, a Senior Automation Executive, for INSURE cautioned, "The biggest challenge… is the kind of cultural change that you need for automation. The challenge we have is that bridge between RPA being an IT tool and the business side of it."

The problem? RPA was seen as too much IT owned, sitting with IT business analysts, IT developers, and an IT platform team in IT shared services. How then to get business unit buy-in? Either get a great Subject Matter Expert (SME) in the business or recognize that the "business analyst" role is different with RPA, since it involves mostly mapping one process end-to-end. As the Senior Automation Executive explained, "So we are shifting that 'business analyst' role out of IT and into the business areas. So effectively, you remove the kind of need for a subject matter expert because your business analyst is the subject matter expert from the business. But then they are supported, where needed, by an IT community who have fully-fledged business analysts."

In order to optimize work processes, INSURE also planned to integrate the automation and systems thinking teams to sit together within the business. INSURE was trying to make sure that it automated "value" steps. INSURE aimed to eliminate wasteful steps rather than automate them—one of the key transformation levers in Figure 1. The other objectives were to get more buy-in within the business teams and more of a pull towards RPA tools.

Benefits and developments

The Life and General Insurance business units formed an interesting contrast. By late 2015, Life had made great strides, whereas General Insurance had struggled to get a level of buyin. The Life business encountered a real business problem when, in 2015, the country's government mandated that all employees needed to have a company pension. Everyone had to be auto-enrolled onto a pension scheme by a government deadline, whether they wanted to be or not, or face penalties. The robots were configured to process the manual elements of pension enrolments, freeing the humans to step in and make decisions. Speed and resources were particularly important to Life, and this challenge played into the strengths of RPA:

"It can take six to nine months for a relatively simple IT change. And it's pretty costly as well. Whereas, an RPA tool, we can be start to finish in six to eight weeks for probably 45 to 50 thousand €uros, all in. And we can release it and manage it within the robotics team that we have set up because it doesn't actually change a system; we don't have to include it within our normal release process." – Senior INSURE Executive.

In addition to being cheaper and quicker to implement, RPA gave other reported benefits including work done more quickly, fewer errors, higher consistency, and better reporting output:

"Because the robot will always do exactly the same, it is far more consistent than a human because a human will behave a certain way in the morning, that by five o'clock they've probably had enough and they'll do things differently. So from a data quality perspective, it's improved massively. The reporting output has been really beneficial. The other element is we can run the robots at night, so for maximising efficiency, it's much better for that." – Senior INSURE Executive.

Meanwhile, the management consultancy report had recommended RPA for GI but did not specify business problems for RPA to address. Without a really clear operational challenge, said one interviewee. "It's quite hard to get them into the automation mind set." INSURE also has alternative IT solutions, including business process management tools, APIAN and GUIDEWIRE, the latter used in the Commercial and General Insurance businesses.

Faced with a multiple array of systems and processes acquired from mergers and acquisitions over the years, INSURE is trying hard to simplify the IT estate. But this created a challenge of getting the process mapping done, because that required the involvement of the people whose job would be directly impacted by robotics. That linked a little with job losses in offshore sites, and as a result of a site move, but by 2015 the use of RPA was too small to affect job numbers, its affects being managed by attrition, i.e., not replacing leaving staff. INSURE looked to automate processes where three to four FTES could be saved, thus getting payback in one year. By late 2015, INSURE was automating pockets of work, for example a sub-process on bodily injury claims that saved 12 FTEs.

Common Themes

Looking across the two client cases in this report as well as from other shared services RPA adoption cases we researched, we found many similarities and only a few differences. Most of the clients in our research launched service automation from within their shared services organizations. Most clients picked proof-of-concept cases that were highly visible, gaining interest and even enthusiasm from within their organizations as well as attracting attention from media and external organizations. Overall, the main business drivers for service automation were doing more work with existing staff resources, focusing internal staff on more interesting and critical work, and improving service speed and quality. FTE savings occurred, but the freed FTE resources were deployed to higher-value work. None of these organizations laid off staff because of automation, but some firms were not replacing as many positions as were being lost through natural attrition. Finally, all client organizations that participated in our research planned to adopt more service automation in the future. These observations are expanded upon below.

1. Most service automation initiatives started in shared business services; only a few firms launched service automation within the IT organization

Potential service automation adopters often ask, "Where is service automation launched—in business operations, IT or in outsourcing provider firms?" In most of our research, we saw that service automation was almost always launched in business operations/shared business services. Among two client cases in this report, the MSC launched service automation in shared business services whereas INSURE launched service automation in shared IT services. The benefit of deploying RPA in shared business services was control over the automation, without having to wait for IT resources; MSC, for example, noted that they were able to allocate flexibly shared services staff to RPA projects as needed. The benefit of deploying RPA in INSURE's shared IT services was that the business services (General Insurance and Life) could rely on IT's expertise in vetting new software, buying licenses, and deploying robots on servers.

Although most of our client case studies launched RPA in business operations, this observation may be an artifact of our client sample. A broader survey of 178 enterprise buyers by HfS in 2015 found automation was based in IT in 38 percent of responding organizations and in business units in 29 percent of responding organizations.⁴⁹ Thus, according to the HfS survey, IT more frequently adopts service automation than business

operations, so in this sense, INSURE may be the more typical client. But we believe most of the IT deployed automations are automating *IT* services (not business services).

We also note that the two companies in this report—the MSC and INSURE—both wanted to *insource* RPA automation. The HfS sample and our other client case studies in our book both found that service automation is happening inside enterprises more frequently than through their ITO and BPO providers. This may just be an issue of visibility, since ITO and BPO providers clearly need to rely on automation (and labor and other resources) to deliver competitive services. Our IAOP survey of BPO/ITO customers did find that clients would "primarily rely on service providers to automate services", but the majority of respondents had not (yet) adopted service automation.⁵⁰

2. First projects removed pain points and were thus exciting and noticeable

Organizations are naturally skeptical of new technologies because those in charge of new technologies often over-promise and under-deliver. The phenomenon is so common that Gartner developed the "emerging technology hype cycle". Gartner's hype cycle has five phases—an innovation trigger, a peak of inflated expectations, a trough of disillusionment, a slope of enlightenment, and a plateau of productivity. Proof-of-concept cases are an important way to obtain realistic stakeholder buy-in; the organization needs to see substantial benefits. Two clients in this report selected initial projects on visible processes that delivered much more value than just cost savings to their organizations—they each removed tedious, dull, and monotonous work.

At the MSC, the first thing A.J. Hanna and his team did was a proof-of-concept launch on a moderately complex, moderately high-volume business process of updating employee records. Excel spreadsheets are sent to the MSC center from all the member hospitals and the MSC staff had to manually copy and paste updates from the spreadsheets to the HR system of record. The task was tedious. Hanna and his team were able to automate about 75% of the task. The RPA software now extracts and loads the new data into the databases, freeing up the MSC staff to do more interesting work. As of December 2014, the automation software had processed 7,474 transactions. This pilot was demonstrated to various operations group to show how it works. This helped gain momentum and stakeholder buyin, with business operations asking, "What else can we automate?" Hanna, along with Lee Coulter, the CEO, and Sandor Bahtory, Manager Business Technology Service, have all

gained external attention and are frequent keynote speakers on the topic of service automation.⁵¹

At INSURE, a real pain point triggered from a new government regulation triggered a visible application of RPA: The government mandated that all employees needed a company pension. Normally, government regulations like this prompted either (1) an automated solution from IT, which shifted vital IT resources away from business projects to expensive compliance projects, or (2) additional staff resources to manually meet the short term demand. With RPA, the needed changes were implemented quickly and inexpensively—no underlying code was changed and no additional staff were hired; The robots were configured to process elements of pension enrollments the way humans do, but only much faster.

3. Business results were multifaceted

Like most shared service organizations, clients were under pressure to take on more and more work with existing resources. At the MSC, it was launched in 2011 to save their non-profit hospitals money by sharing services—headcount containment was very important to its mission of keeping costs contained. At INSURE, there was pressure to improve efficiencies across Groups. Service automation was seen as a powerful tool to do more work with fewer resources. MSC and INSURE noted that RPA allows them to cover more work, freeing staff resources for more value-added work.

Looking at other cases from our research, additional benefits such as 24 hour service coverage, a multi-skilled robotic workforce, doing work faster, and better compliance were also mentioned. For one GBS in a financial services firm, RPA was a better way to get 24 hour service coverage than paying for expensive night shifts or trying to coordinate teams dispersed across time zones: "Everyone gets the cost reengineering and that's obviously one of the driving factors but the other compelling case is RPA doesn't sleep, does not go off sick, does not take vacation..... the virtual, always on workforce is something that we always dreamed of in the shared services industry in terms of follow the sun but here you're getting an opportunity to actually buy a product that does that."

For several companies in our study, the fact that robots can be multi-skilled was a real benefit. A senior executive said, "A piece that I think is very attractive is the ability to use the robots on multiple tasks. From a robot, I just say, task number five, do the payroll run this morning and in your downtime, go over and do this task in accounting that's at a different time of day and that, I can see, is incredibly powerful." In contrast to robots, the human

workforce tends to have specialist skills that cannot be dynamically re-routed to balance out demand fluctuations. A payroll clerk in shared services typically cannot, for example, be asked to perform the work of an accounting clerk to balance out workloads.

RPA also answers the charge to "do more work with fewer resources". One example from our research was payroll. Before RPA, one GBS client only had enough human resources to validate about 15 percent of payroll. Humans focused only on high risk employees. With RPA, the entire payroll was validated and exceptions were passed to the humans for processing. "I can actually cover more work, get a better customer service outcome and I can make my life for my employees a lot better..... By the way, that robot can work at three o'clock in the morning and run the entire validation of the US payroll and then return to you the exceptions by the time you come in an eight o'clock in the morning. That is something I'm quite excited about."

Finally, some clients reported that compliance increased with RPA. "I'd like to say that we have the best process mapped processes in the world but the power of having the tools to actually process map and workflow is also powerful just from a governance and structure and oversight perspective."

Looking across the shared services experiences as well as other client adoptions we researched, the following business benefits were commonly reported:

- FTE savings
- 24 hour service coverage (because robots do not sleep or eat)
- Flexible virtual workforce because robots can be multi-skilled
- Consistent quality (robots do not make mistakes)
- Faster service delivery (robots are faster than humans)
- Faster deployment of new functionality (RPA is easier to deploy than other IT solutions)
- Highly scalable solutions to meet surges in service demand
- Happier employees because dreary tasks are done by robots, freeing them to focus
 on tasks requiring judgment, empathy, and social interactions

Of course the service automation business cases at the MSC, INSURE and other cases all included cost savings in the form of freeing up FTEs. At the MSC, an estimated 16,000 hours of labor, or approximately eight FTEs⁵² were freed up by service automation. At INSURE, it looked to automate processes that released three to four FTEs. In these

companies FTE savings did not create layoffs, freed workers were either deployed to highervalue tasks or headcount reduction was occurring through natural attrition. But the clients highlighted other business benefits like those in the bulleted list above.

Why did service quality improve? Humans are actually poorer performers of repetitive work than machines because humans make mistakes when they get bored and tired. All clients mentioned that quality improved as a consequence of service automation because the software executes processes exactly as configured to do so and the humans do what they are most suited for—social interactions and judgments. The remaining data errors, as Hanna noted, were caused by the quality of the data passed into the MSC's control.

Why are employees happier? This was a finding that came out strongly in the client cases included in our book. RPA deployments at the Associated Press, MSC, Virgin Trains, Xchanging, for example, released staff from the drudgery of repetitive and tedious tasks so that staff could focus on more interesting and critical work. Service automation not only enabled the ability to take on more work in these client firms, it took over the least desirable tasks. In these organizations, the employees thus welcomed automation. Also a key lesson for stakeholder buy-in: none of these organizations use service automation to lay off staff.

4. All organizations planned to adopt more automation in the future

With visible success stories, MSC and INSURE are both ramping up their service automation capabilities. In December of 2014 immediately following the proof-of-concept case at the MSC, four processes were in development, five processes were waiting development, and 14 processes were awaiting review for RPA automation. More recently, MCS was evaluating natural language processing and cognitive computing in Fall of 2015. INSURE was expanding automation to other processes, like bodily injury claims, and making moves to utilize RPA more widely.

We found other companies, like a global multinational planning to deploy RPA through high opportunity areas, having built infrastructure and governance structure and capabilities that could be used across the organization. It planned to build an RPA Centre of Excellence and utilize RPA in its heavily invested infrastructure in India where it operated a captive centre that ran 80 percent of the corporation's GBS workload. A senior executive stressed that RPA had to be a balanced sell: "I like my payroll deployment, because the staff realize there's a reengineering opportunity in it but I can show them something that will make their lives

better, that will streamline and provide better information to them in a more timely basis to do their job and their job becomes less about moving this piece to this part of the world, That is a big sell and I think there's got to be a balanced sell. It can't just be about the reengineering."

Governance Lessons

Although the business benefits in this research are impressive, results are not guaranteed. Our forthcoming book, *Service Automation: Robots and the Future of Work,* identified 25 lessons for realizing good outcomes from service automation. Many of these lessons deal with effective governance. Three lessons standout as particularly crucial for service automation in shared services:

1. Strategic service automation requires cultural adoption by the C-suite

Our research has found that the clients who get the most business value from RPA have strong support from the C-suite of executives. The C-suite executives are the champions of service transformation efforts and understand how automation can contribute to that effort. One interviewee said, "Our message is very clear right from the outset: that RPA has to be seen as a strategic initiative and it can't be seen as just sort of sticking plasters and one-off projects. It isn't a connection of projects put together, it is building an enterprise capability." In one company we studied, Xchanging, transformation and RPA automation was part of their DNA, including highlights in the corporate annual report. Just below the C-Suite, senior leadership needs to take ownership for digital transformations that enable business objectives in global business services, in addition to driving out efficiencies within their business units, and having an automation capability to that. The senior executives we interviewed fully expected that within two years RPA would be at the forefront of how resolved business process problems.

Talking about some other RPA adopters with less illustrious results, an RPA provider found that RPA delivered less value when RPA adoption was pioneered by middle managers with limited influence. The Director of Professional Services for an RPA provider said, "Where we see a lack of exponential growth, it's in just divisional implementations where the breadth of influence over the organization is just not wide enough for it to go any further. People across the organization look at RPA as some sort of curiosity. Whereas when you've got that C-suite buy-in, that's when you really get the traction."

2. Imbed RPA capability into the business units and shared service functions.

In our research, we found both models of service automation adoption: adoption within IT or within business operations/shared services. Business operations were the more common adoption locus among our case studies, primarily because business operations saw value in owning and operating the service automation capability. IT needed to be brought on board to ensure the software was compliant with IT policies and to help business operations scale the IT infrastructure as automation scaled. Once IT departments understood how the software worked, they too saw frequently the value in allowing business operations to whittle down automation requests on their own so IT could focus on more technically complicated projects. In one shared services organization, IT initially owned the automation initiative, but that was being transferred to operations: "What I'm changing now, is embedding more of the process into the business team so that actual subject matter experts take more ownership for driving out potential automation, robotic automation processes; and moving the business analyst role into the business teams as well. Taking more ownership into the business areas as opposed to RPA sitting within IT."

3. Rethink talent

Some global shared business services organizations have over 1,000 people in them. What do these people do? Many people in shared services, we find, are doing mundane "swivel chair" processes that can be done quicker and better through automation software. The true vision of global shared services is a high-performing organization that provides excellent service, enables the business to achieve strategic objectives, innovates quickly, scales nimbly, and meets all compliance standards. If a company goes through a strategic acquisition, for example, a high-performing global shared services organization can quickly absorb the new acquisition. If the business launches a new product, a high-performing global shared services organization is ready to service external customers. The talent in global shared services, therefore, should be focusing on value-added tasks like strategy development, design of new services, judgment calls, and rich social interactions with internal and external customers. If they are not, time to rethink talent development and how automation might free them from mindless activities.

Conclusion

As shared service organizations move forward, RPA (and additional automation tools on the way) can provide an additional transformation lever to add to centralization, standardization, optimization, offshoring labour arbitrage, and IT enablement. For the client shared service organizations we examined, the RPA business case emerged as a strong one: relatively easy and cheap to implement; lightweight IT (though falling within IT governance, security, and policy requirements); cost and FTE savings but also multiple other benefits; scales easily, easily redeployed. Where a shared service model has not been fully realized – the case in all too many back offices and Global Business Services, then RPA can deal well with the mismatches in processes, systems and steps, in ways at the moment accomplished by human labour. But RPA can be focused on the repetitive, standardized tasks, processes and sub-processes it excels at, freeing up human labour to fill complementary, more rewarding tasks more suited to human attributes.

In practice we have found shared service organizations have been slow so far to move into adopting RPA. But this is changing as RPA has been gaining a higher profile across 2014/15, and we have found nothing inherent in RPA to inhibit adoption; guite the reverse. There would seem to be, from our cases, strong reasons why RPA fits and helps deal with many of the dilemmas shared service organizations are finding themselves facing by end of 2015. But to be strategically adopted and achieve the greatest effectiveness, RPA needs cultural adoption by the C-suite. The shared service organization and the business units need to buy-in to RPA deployment. This comes from identifying the business problems that RPA can help solve, and from imbedding requisite RPA capability in the shared service organizations and business units. With RPA, as with IT, ownership prompts take-up. And it comes from rethinking talent, that is reconfiguring the older labour arbitrage model on which shared services has been based. The six transformation lever that is RPA is not in fact just an automation tool but requires, in the light of the technology becoming available, matching and leveraging three new identifications for the future: what people are best doing, how processes can be further reengineered, and where and how robotic process automation can best be deployed.

Endnotes

¹ See our other research outputs on service automation:

Willcocks, L. and Lacity, M. (2016), *Service Automation: Robots and the Future of Work*, Steve Brooks Publishing, UK, forthcoming.

Lacity, M. and Willcocks, L. (2015), "What Knowledge Workers Stand to Gain from Automation," Harvard Business Review Online, June 19.

Willcocks, L. and Lacity, M. (2015), "Businesses will increasingly use robots to deal with the explosion of data," *LSE Business Review Online*, September 15.

Willcocks, L. and Lacity, M. (2015), "Will robots replace humans?" LSE Business Review Online, October 6.

Willcocks, L. and Lacity, M. (2015), "IT, Phone Home: Leslie Willcocks and Mary Lacity on Telefonica O2's RPA" *Professional Outsourcing Magazine*, Autumn Issue.

Lacity, M., Willcocks, L., and Yan, A. (2015), "Findings, "Pulse Magazine, Issue 17, pp. 14-21.

Lacity, M., Willcocks, LP., and Craig, A. (2015), "Robotic Process Automation at Telefónica O2," The Outsourcing Unit Working Research Paper Series

Willcocks, LP., Lacity, M. and Craig, A. (2015), "Robotic Process Automation at Xchanging," The Outsourcing Unit Working Research Paper Series

² Everest Group (2014), *Service Delivery Automation Market in 2014*. Everest Group Market Report, October. Everest Group see RPA as a UI-based/robotic component of service delivery automation. They distinguish this from four other components of SDA -- macro or scripted automation, IT automation, Business process management, and artificial intelligence. Our research aligns with the usefulness of these distinctions, and also the identification of cognitive automation as a set of tools that build a process related knowledge base and use it in combination with a set of business rules to automate processes. Cognitive tools extend RPA by handling unstructured data, for example the tools provided by Celaton – see our later chapter on In Their Own Words by providers.

³ Accenture (2005), *Driving High Performance in Government: Maximizing the Value of Public-Sector Shared Services*, white paper.

⁴ Lacity, M., and Willcocks, P. (2012), *Advanced Outsourcing Practice: Rethinking ITO, BPO, and Cloud Services*, Palgrave, London.

Schulz, V. and Brenner, W. (2010), "Characteristics of Shared Service Centers," *Transforming Government: People, Process, and Policy*, Vol. 4, 3, pp. 2010.

⁵ Deloitte (2009), "Stop, Start, Save: Shared Service Delivery in Local Government" http://www.deloitte.com/assets/Dcom-

UnitedKingdom/Local%20Assets/Documents/Industries/GPS/UK_GPS_StopStartSave.pdf

⁶ "Shared Services: Can You Be an Internal Outsourcer?," Alsbridge Consulting, Webinar on October 18, 2007. For an article based on this Webinar see: www.outsourcingleadership.com/internal-outsourcer.shtml. However, in the government sector, Accenture (op. cit., 2005) found that there are more shared services centers for IT than for finance.

⁷ Andriole, S. (2007), "The 7 Habits of Highly Effective Technology Leaders" *Communications of the ACM*, Vol. 50, pp. 67-72.

KPMG (2011), *KPMG 2Q11 Sourcing Advisory Pulse Survey*. http://www.equaterra.com/2Q11-KPMG-Sourcing-Advisory-Global-Pulse-Survey-2298C514.html?LayoutID=28

Lacity, M., Feeny, D., and Willcocks, L. (2004), "Commercializing the Back Office at Lloyds of London: Outsourcing and Strategic Partnerships Revisited," European Management Journal, Vol. 22, 2, pp. 127-140.

Lacity, M., Feeny, D., and Willcocks, L. (2003), "<u>Transforming a back-office function: Lessons from BAE Systems' Experience With an Enterprise Partnership</u>," *MIS Quarterly Executive*, Vol, 2, 2, pp.86-103.

¹⁸ IBM (2005), "Finance shared services and outsourcing." IBM Business Consulting Services, http://www-935.ibm.com/services/uk/bcs/pdf/g510-6143-finance-shared-services.pdf.

⁸ Customer1 (2011), *White Paper: Business Shared Services: A Model for Streamlined Support*, http://info.customer1.com/business-shared-services-white-paper; also "Three Major Trends in Shared Services" http://www.customer1.com/blog/shared-services-trends-2011.

⁹ Jeruchimowitz, P. and Axson, D. (2015), Is Your Shared Services Organization Heading for Extinction?" Accenture Report available on https://www.accenture.com/t20150708T060509 w /usen/_acnmedia/Accenture/Conversion-Assets/DotCom/Documents/Global/PDF/Dualpub_14/Accenture-Shared-Services-Extinction-PoV.pdf#zoom=50

¹⁰ Davis, T. (2005), "Integrating Shared Services With the Strategy and Operation of MNEs" *Journal of General Management*, Vol. 31, 2, pp. 1-17.

¹¹ Lacity, M., and Fox, J. (2008), "<u>Creating Global Shared Services: Lessons from Reuters</u>," *MIS Quarterly Executive*, Vol. 7, 1, pp. 17-32.

¹² Deloitte (2011), "Global Shared Services Survey Results," http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/IMOs/Shared%20Services/us_sdt_2011GlobalSharedServicesSurveyExecutiveSummary.pdf.

¹³ Jeruchimowitz, P. and Axson, D. (2015), Is Your Shared Services Organization Heading for Extinction?" Accenture Report available on <a href="https://www.accenture.com/t20150708T060509_w_/us-en/_acnmedia/Accenture/Conversion-Assets/DotCom/Documents/Global/PDF/Dualpub_14/Accenture-Shared-Services-Extinction-PoV.pdf#zoom=50

¹⁴ Deloitte (2011), "Global Shared Services Survey Results," http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/IMOs/Shared%20Services/us_sdt_2011GlobalSharedServicesSurveyExecutiveSummary.pdf.

¹⁵ Forst, L. (1997), "Fulfilling the Strategic Promise of Shared Services," *Strategy and Leadership*, Vol. 25, 1, pp. 30-34.

 $^{^{16}}$ Deloitte (2015), Global Shared Services Survey: Expansion of Shared Services is on a Sharp Climb, Increasing Value for Companies Across the Globe.

¹⁷ Gospel , H. and Sako, M. (2010), "The Unbundling of Corporate Functions," The Evolution of Shared Services and Outsourcing in Human Resource Management," Industrial and Corporate Change, pp. 1-30;

McKeen, J. and Smith, H. (2011), "Creating IT Shared Services," *Communications of the ACM*, Vol. 29. Article 34.

Lacity, M., and Fox, J. (2008), "Creating Global Shared Services: Lessons from Reuters," *MIS Quarterly Executive*, Vol. 7, 1, pp. 17-32.

¹⁹ AT Kearney (2004), "Success Through Shared Services" http://www.atkearney.com/images/global/pdf/Shared Services S.pdf

²⁰ Amiruddin, R., Aman, A., Auzair, S. M., Hamzah, N., & Maelah, R. (2013). Mitigating risks in a shared service relationship: The case of a Malaysian bank. Qualitative Research in Accounting and Management, 10(1), 78-93.

²¹ Deloitte (2015) 2015 Global Shared Services Survey

²² Forst, L. (1997), "Fulfilling the Strategic Promise of Shared Services," *Strategy and Leadership*, Vol. 25, 1, pp. 30-34.

²³ Deloitte (2015), Shared Services Handbook: Hit the Road

²⁴ Deloitte (2015), Global Shared Services Survey: Expansion of Shared Services is on a Sharp Climb, Increasing Value for Companies Across the Globe.

²⁵ Customer1 (2011), *White Paper: Business Shared Services: A Model for Streamlined Support*, http://info.customer1.com/business-shared-services-white-paper; also "Three Major Trends in Shared Services" http://www.customer1.com/blog/shared-services-trends-2011.

²⁶Jeruchimowitz, P. and Axson, D. (2015), Is Your Shared Services Organization Heading for Extinction?" Accenture Report available on <a href="https://www.accenture.com/t20150708T060509_w_/us-en/_acnmedia/Accenture/Conversion-Assets/DotCom/Documents/Global/PDF/Dualpub_14/Accenture-Shared-Services-Extinction-PoV.pdf#zoom=50

²⁷ Deloitte (2011), "Global Shared Services Survey Results," http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/IMOs/Shared%20Services/us_sdt_2011GlobalSharedServicesSurveyExecutiveSummary.pdf.

²⁸ Cushman & Wakefield (2015), Where in the World? Business Process Outsourcing and Shared Service Location Index.

²⁹ Deloitte (2015), Global Shared Services Survey: Expansion of Shared Services is on a Sharp Climb, Increasing Value for Companies Across the Globe.

³⁰ Lacity, M., and Fox, J. (2008), "<u>Creating Global Shared Services: Lessons from Reuters</u>," *MIS Quarterly Executive*, Vol. 7, 1, pp. 17-32.

³¹Deloitte (2009), "Stop, Start, Save: Shared Service Delivery in Local Government" http://www.deloitte.com/assets/Dcom-UnitedKingdom/Local%20Assets/Documents/Industries/GPS/UK_GPS_StopStartSave.pdf

³² Joha, A., and Janssen, M (2010), "Public-Private Partnerships, Outsourcing, or Shared Service Centers? Motives and Intents for Selecting Sourcing Configurations," *Transforming Government: People, Process, and Policy,* Vol. 4, 3, pp. 232-248.

Niehaves, B., and Krause, A. (2010), "Shared Service Strategies in Local Government: A multiple Case Study Exploration," *Transforming Government, People, Process, and Policy*, Vol. 4, 3, pp. 266-279.

SSON Industry Report (2015), "Social Media Analytics – Growth Engine for Next-Gen Customer Care", available on http://www.ssonetwork.com/transformation-innovation/articles/social-media-analytics-growth-engine-for-next-gen/

³³ Accenture (2005), *Driving High Performance in Government: Maximizing the Value of Public-Sector Shared Services*, white paper.

³⁴ Oracle (2007)

³⁵ Tribune Business News (2011), "Shared Services: Time for Action", June 23.

³⁶ Smith, I. (2011), "Public Sector Reform Conference: Shared Services Success Compels Collaboration," *PensionWeek*, April 4.

³⁷ Jeruchimowitz, P. and Axson, D. (2015), Is Your Shared Services Organization Heading for Extinction?" Accenture Report available on <a href="https://www.accenture.com/t20150708T060509_w_/us-en/_acnmedia/Accenture/Conversion-Assets/DotCom/Documents/Global/PDF/Dualpub_14/Accenture-Shared-Services-Extinction-PoV.pdf#zoom=50

³⁸ Accenture and HfS (2014), "Digital Transformation Enables Expansion of Shared Services Model to Non-Traditional Business Functions, Accenture and HfS Research Study Shows," available on https://newsroom.accenture.com/subjects/strategy/digital-transformation-enables-expansion-of-shared-services-model-to-non-traditional-business-functions-accenture-and-hfs-research-study-shows.htm

³⁹ Jeruchimowitz, P. and Axson, D. (2015), Is Your Shared Services Organization Heading for Extinction?" Accenture Report available on https://www.accenture.com/t20150708T060509 w /usen/ acnmedia/Accenture/ConversionAssets/DotCom/Documents/Global/PDF/Dualpub_14/Accenture-Shared-Services-Extinction-PoV.pdf#zoom=50

⁴¹ Lacity, M., and Willcocks, L., (2015), *Nine Keys to World-class Business Process Outsourcing*, Bloomsbury Publishing, London.

⁴² Lacity, M., Willcocks, L., and Craig, A. (2015), "Robotic Process Automation at Telefónica O2," The Outsourcing Unit Working Research Paper Series

⁴³ Everest Group (2014), "Service Delivery Automation Market in 2014: Moving Business Process Services Beyond Labor Arbitrage," White paper EGR-2014-1-R-1264.

⁴⁴ These cases are available in our forthcoming book, Willcocks, L. and Lacity, M. (2016), Service Automation: Robots and the Future of Work, Steve Brooks Publishing, UK.

⁴⁵ "IBM's Watson is better at diagnosing cancer than human doctors", Wired, February 11, 2013, http://www.wired.co.uk/news/archive/2013-02/11/ibm-watson-medical-doctor.

⁴⁶ http://www.operationalagility.com

⁴⁷ ACCA (2015), The Robots are coming? Implications for finance shared services.

⁴⁸ ACCA (2015), The Robots are coming? Implications for finance shared services, page 10.

⁴⁹ Sutherland, C. (2015), *The Raw Truth about Intelligent*, HFS Research White Paper, September.

⁵⁰ Lacity, M., Willcocks, L., and Yan, A. (2015), "Are the robots really coming? Service Automation Survey Findings," Pulse Magazine, Issue 17, pp. 14-21.

⁵¹ For example, Hanna and Bahtory were main session speakers at the launch of the Institute of Robotic Process Automation in NYC in December of 2014; Coulter has been a featured speaker at many events and webinars such as "Where is the Action Today in Intelligent Automation?" HfS Research Webinar, August 27, 2015
⁵² Calculation assumes an FTE works 2,000 hours per year

⁵³ Willcocks, L., Lacity, M. and Craig, A. (2015), "Robotic Process Automation at Xchanging," The Outsourcing Unit Working Research Paper Series