Research Corner

Service Automation Trends: Now, Soon, Later
Findings from OWS17

By Mary Lacity, COP, Ron Babin, COP, and Leslie Willcocks, COP

In a previous 2016 Pulse article[i], the author predicted the timing of three service automation trends — Robotic Process Automation (RPA)[ii], Cognitive Automation (CA), and Blockchain (BC) using Stephen Sondheim's song "now, soon, and later." She described RPA as a trend in full play "now," CA as being deployed in business services "soon," and BC as coming "later."

This year's survey of clients and providers attending the networking sessions at OWS17 in San Antonio Texas confirmed these predictions. Sixty-eight clients and 59 providers completed the surveys. We first present what clients reported.

Service Automation in Client Organizations

We asked clients to indicate the adoption stages for RPA, CA and blockchain in their organizations. ***Among the clients who responded to the survey, 37 percent indicated that their organizations had already deployed RPA*** *(see Figure 1). Certainly we have seen a maturing of RPA capabilities over the last year, and Lacity and Willcocks have an RPA risk mitigation guide forthcoming that identifies 30 mature RPA practices[iii].*

In contrast, as at February 2017, only 15 percent of client organizations had already deployed cognitive automation. In our case study research, we are finding that cognitive automation projects will increasingly go to market in late 2017, which is supported by the survey: ***25 percent of client organizations were primed to deploy cognitive automation services "soon,"*** *as they were currently doing trials or proofs-of-concepts (POC) for cognitive technologies.*

Finally, only 8 percent of respondents indicated that their organizations had already deployed blockchain technologies. Blockchain still has a way to go in most client organizations, as nearly one quarter of clients claimed their organizations were unaware of blockchain. ***The power of blockchain will be unleashed "later," when industry partners agree on standards for inter-organizational transactions.***

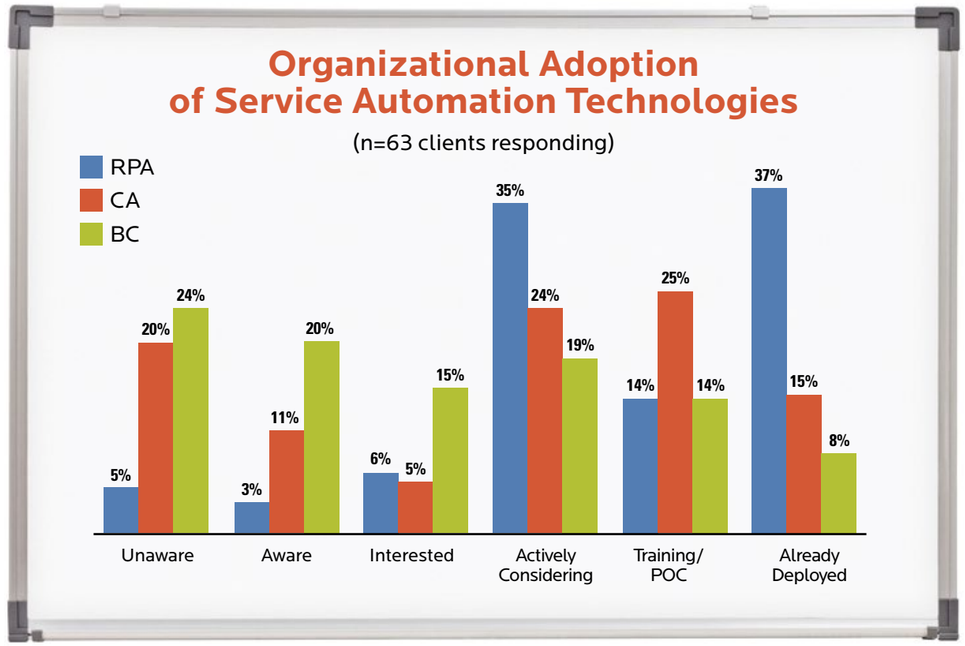

Figure 1

We next asked clients which sourcing approach they typically used for service automation programs. ***Clients most commonly reported that they relied on their current service providers to automate services for them*** *(see Figure 2). This is good news for service providers that have developed significant automation capabilities. For clients, the benefits of engaging a traditional BPO provider include a full suite of integrated services that combine labor arbitrage, process excellence, change management maturity and technology expertise.*

Advisors will also be pleased to learn that 23 percent of clients said they hire advisors to help with service automation. In the past few years, we have seen advisors quickly building service automation practices in response to increased client demand. Advisory firms track the service automation landscape and help clients with their service automation journeys. Credible advisors need to master a variety of tools to be "tool agnostic" and they must understand which tools are best suited to meet a client's needs. Advisors are building capabilities by a variety of means. These include: adopting tools to automate their own internal services, hiring pioneers from early enterprise adopters and sending analysts through the software provider's training certification programs.

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About a quarter of clients are managing automation programs themselves, without outside help from providers or advisors. With insourcing, client organizations bear all the risks of service automation themselves, but earn all the benefits — if managed well. For this "do-it-yourself" (DIY) model to pay off, clients need to invest significant resources in building internal service automation skills.In a previous book, Service Automation: Robots and the Future of Work (2016), Willcocks and Lacity described how client organizations can build a Center of Excellence for RPA. In the forthcoming risk mitigation guide, Lacity and Willcocks (2017) describe how to elevate RPA to a service automation capability that integrates automation tools under one strategic unit.

Finally, a smaller percentage of client organizations use service automation to bring services back in-house (11 percent) or are beginning to buy cloud services (12 percent). The cloud deployment is a particularly interesting trend to watch, as our case study research found that organizations in some industries — like healthcare and financial services — avoided cloud RPA in 2016 because of regulatory concerns.

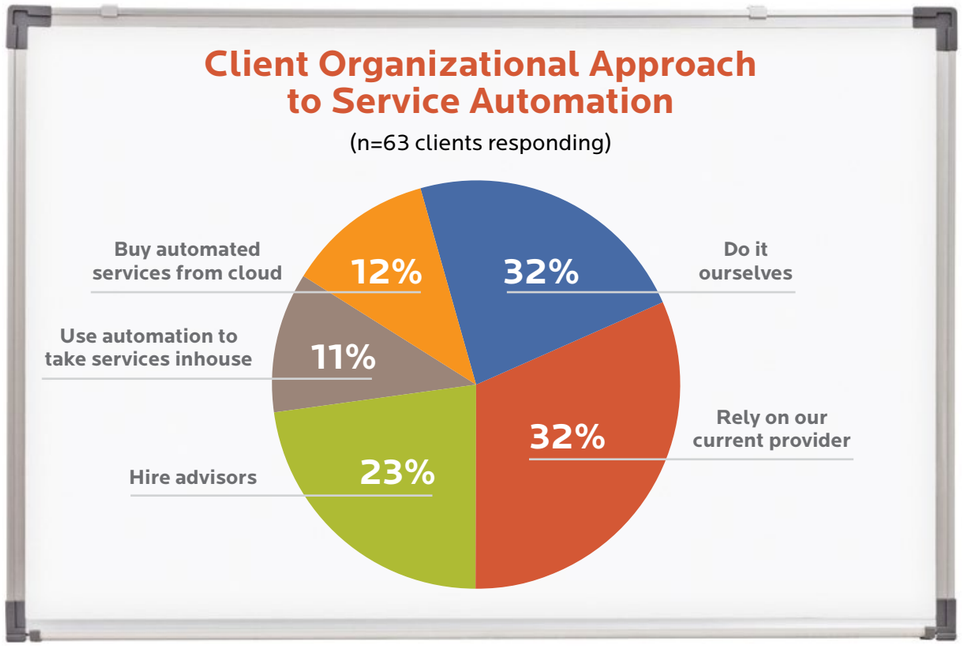

Figure 2

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We also wondered: who do clients think benefit the most from service automation for outsourced services — the providers or themselves? The answer surprised us: Nearly half the client respondents indicated that benefits from service automation were shared with their providers. A further 40 percent indicated that they, i.e., the client, benefited the most. Only 12 percent of clients reported that providers were the primary beneficiary.

These findings indicate a significant change since last year. In 2016, our original research found clients complaining that their BPO providers had little incentive to automate services because any FTE savings generated from automation would reduce the provider's revenues. We argued in our 2016 book that if a BPO contract is based on FTE rate cards, like so many were at the time, clients and providers would need to negotiate a gainsharing allocation of the FTE savings generated from automation.[iv] *Clearly, clients and providers are learning to share the benefits, or perhaps stiff competition is forcing the providers to respond.*

Service Automation in Provider Organizations

For the provider community, we sought a richer picture of their service automation deployments. We wanted to know whether they were deploying RPA and CA in their service offerings, and if so, were they buying RPA solutions off-the-shelf (OTS) or building their own bespoke, proprietary software? ***Among the 59 providers who responded to the survey, 44 percent indicated that their organizations had already deployed bespoke RPA solutions and 25 percent had already deployed OTS RPA-enabled services for their external clients*** *(see Figure 3). This data suggests that providers are ahead of clients as far as RPA deployments, which may add further insight as to why clients frequently rely on providers to deliver automation programs. A higher percentage of providers built their own RPA solutions than bought OTS, indicating that they likely perceive RPA as a unique competitive advantage. Another possible interpretation is that some providers may modify, integrate and rebrand third-party RPA tools as proprietary.*

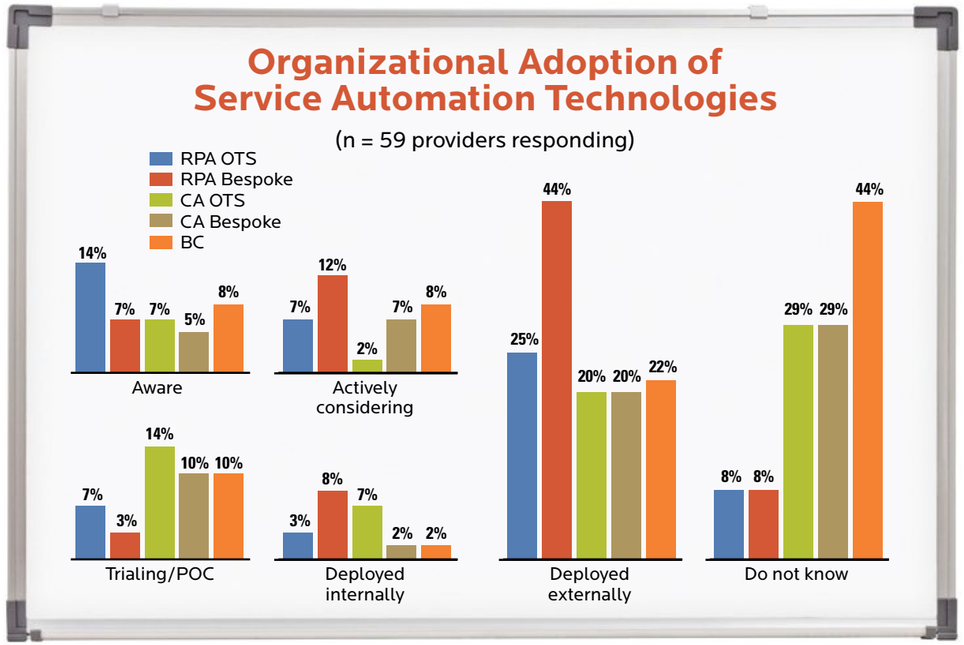

Figure 3

Twenty percent of providers reported that they have already deployed cognitive automation tools externally to clients using both OTS and bespoke tools. For providers, we see plenty of growth opportunities for services to be augmented with cognitive technologies. Based on our studies of CA adoptions, the real stumbling block has been training the CA tools. If a provider takes on that intensive machine-learning overhead for a specific domain area, then surely they could provide more value-added services that customers could not afford to replicate in-house.

Finally, we also wanted to learn about providers' blockchain adoptions. So far, there has not been very much uptake on blockchain in provider organizations. Although 22 percent of providers reported that they have already deployed blockchain in some way, 44 percent said they could not answer the question. The lead author is working with colleagues at MIT's Center for Information Systems Research to study blockchain adoption in financial and accounting services this year. So far, banks have deployed internal POCs for blockchain, so they know the technology works. The real impediment, as stated above, is industry standards. Several consortia and non-profits have been established to speed agreement for blockchain standards.

Bringing the client and provider data together, we next analyze the effects of automation on employment.

Automation and Employment in Client and Provider Organizations

Amidst the fears that automation could lead to a "jobless future," we have always answered the question, "Does service automation lead to massive layoffs?" with empirical data. On the OWS17 survey, we asked respondents, "What does your organization do with the FTE savings generated from automation?"

For the 68 clients who responded to this question (see Figure 4), the most common responses were redeploying employees within the unit (49 percent) and redeploying employees to other work units within the company (32 percent). For the 56 providers who answered this question, the majority redeploy employees to other parts of the company (54 percent) or redeploy employees within the work unit (47 percent), and use FTE savings to take on more work without adding headcount (50 percent). ***For two years, our case study research has repeatedly found that service automation technologies were used to free up employees from dreary, repetitive work so that employees can focus on more value-added tasks. The OWS17 survey certainly corroborates that finding.***

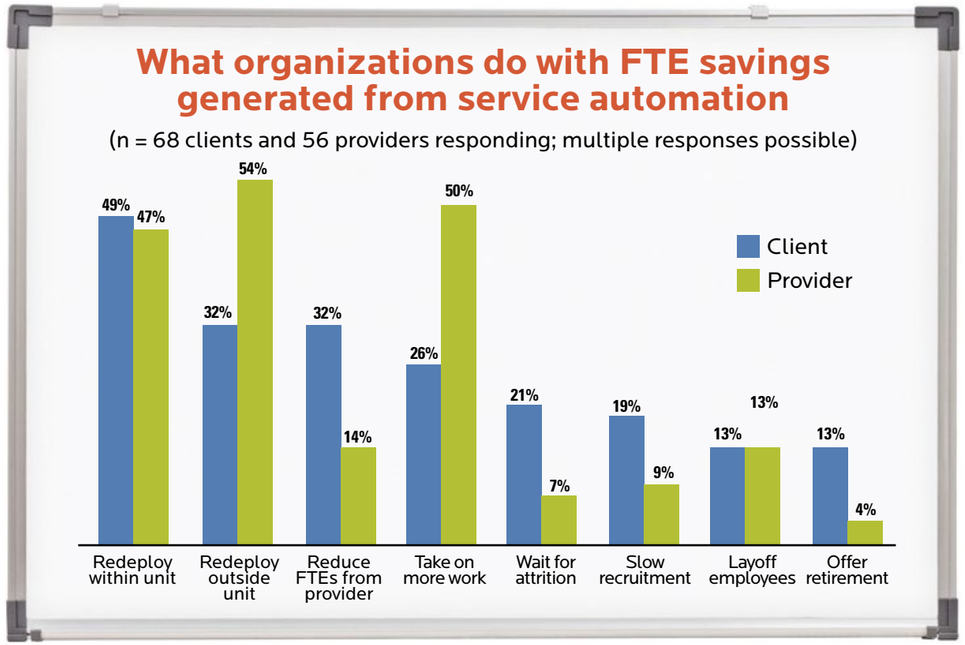

Figure 4

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Clients also reported that they reduce FTEs from the provider organization (32 percent) as a consequence of automation. Given that clients most frequently relied on service providers for automation (see Figure 2), it also makes sense that such a high percentage of respondents remove FTEs from their outsourcing relationships. What else do client organizations do with the FTE savings generated from service automation? Over a quarter take on more work without adding more headcount; clients also ratchet down headcount gradually by either waiting for natural attrition (21 percent) or by slowing recruitment (19 percent). Only 11 percent of clients indicated that their organizations lay-off employees or offer early retirement as a consequence of automation. Providers rarely use attrition, retirements, or slow recruiting. Like clients, only 13 percent of providers lay off any employees.

Conclusion

Outsourcing, offshoring and automation are controversial topics because of the implications for employment. One interesting dimension, given current events in the USA, for example, is the extent to which jobs will be reshored (for more on reshoring trends, look for an article by Ron Babin and Mary Lacity in the next PULSE issue in May/June).

The indications are that, where work and processes are reshored, the likelihood is that jobs will not return; more likely they will be automated. The automation threat to employment, however, is often overstated because commentators fail to allow for the dramatic increase in work being experienced, certainly in all the organizations we have researched, and the failure to address the bigger picture

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of productivity shortfalls in the leading economies, as a result of long-term demographic changes, especially increasingly aging populations.

Moreover, all too often, the public debate only focuses on the worst-case scenarios. Certainly, the press repeatedly jumped on the one statement in a 72-page article by Frey and Osborne that estimated that "47 percent of U.S. employment is at risk of computerization."[iv] Interestingly when you read the article, the authors offer no real time line, make no calculation of the jobs that could be created by automation, and assume whole jobs are under threat rather than parts of jobs. They also make no real allowance for diffusion of innovation challenges, assuming a seamless translation of technology proficiency into organizational exploitation, and underestimate the full distinctive human qualities people bring to work. The best part of their paper, in our opinion, is the frontend essay on the history of automation, which places their quantitative research in a broader perspective.

We will address the automation and future of work in much more detail elsewhere but certainly our own research has always assessed a rich array of outcomes, looking at the multiple sources of value delivered by such business trends. In practice we have found organizations utilizing automation to deliver value to shareholders, customers and employees. We have found others also very challenged in their automation journeys. We will continue to monitor these developments across 2017, in which we expect a continuation in the dramatic uptake in RPA, discrete experiments and use of cognitive automation, later building of more integrated use of automation tools, with more blockchain deployments at the back end of the year.

[i] Lacity, M. (2016), "*Technology Trends: Now, Soon, Later*," *Pulse Magazine*, Issue 26, pp. 32-33.

[ii] We define terms as follows:

Robotic Process Automation (RPA): "using software to automate tasks that use rules to process structured data that were previously per formed by humans."

Cognitive Automation (CA): "using software to automate or augment tasks that use inference-based algorithms to process unstructured and structured data."

BlockChain (BC): "using peer-to-peer, distributed systems to verify, secure, execute, and permanently record transactions between parties."

[iii] Lacity, M. and Willcocks, L. (2017), RPA and Risk Mitigation: the Definitive Guide, SB Publishing, UK, forthcoming. Available March 31st 2017 – for sales contact info@sbpublishing.org.

[iv] Willcocks, L. and Lacity, M. (2016), *Service Automation: Robots and the Future of Work*, SB Publishing, UK. For sales contact info@sbpublishing.org.

[v] Frey, C, and Osborne, M (2013), "The Future of Employment: How Susceptible are Jobs to Computerization, Oxford University Working paper.