Robotic process automation and a vision of lights-out, data driven, decision-making?

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Going all the way
Beginning, developing and concluding careers

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RPA – a vision of lights-out, data-driven decision-making?

As the shared services sector grows, Edward Brooks of the RPA Academy interviews Loughborough University's Ian Herbert about present and future trends
“Apart from digital systems, there’s nothing between people who do and people who think.”
The shared service movement is still expanding. New shared services companies (SSCs) are being set up by the mid-caps and a wider range of public sector organizations. There is also new enthusiasm on the part of the large multinational companies to re-energize their mature SSC platforms. On the conference scene, the talk is about how true end-to-end business processes can deliver further performance improvements and a big part in making the new agenda work is robotic process automation (RPA).

Edward Brooks: The shared service phenomenon doesn’t look like it’s going to run out of steam anytime soon?

Ian Herbert: That’s right, there’s still a long way to go and at the moment it’s a very exciting time. While new SSCs have the advantage of learning from the experience of the established players, I think there’s an interesting situation developing in which past achievements are rapidly being superseded by a new vision of lights-out, data-driven decision-making. RPA presents an opportunity for everyone to think through their transformation journey from first principles. However, I would add a note of caution. In some of the mature SSCs, management teams have become so lean that they may no longer have the capacity to renew their longer-term vision and drive a new wave of change.

EB: That last point surprises me. Please explain.

IH: When SSCs are first established, it’s an exciting time and the C-suite is very happy to provide the necessary “air cover” to make fundamental changes. But, wind forward 10 years and there can be a tendency for top management to view the SSC project as “job done” and their attention naturally moves to other corporate issues. Furthermore, with year-on-year reduction targets in the SSC, there may be insufficient management talent left there to reimagine the vision and then to actually change things. Especially when the next round of job casualties may affect core members who have “lived” the SSC journey — things tend to be different when the casualties are in the divisions.

EB: Ok, but overall, you are saying that, whether young or old, it’s time to be bold. So tell me, what does “Bold 2.0” look like?

IH: There’s a lot of options, depending on the organization and its business context. The main prize for every SSC is to provide a seamless platform of end-to-end processes that support business users in doing what they do best — satisfying external customers. Of course, the SSC is also expected to provide good quality, transparent information that allows top management to coordinate and control performance across the whole business. It goes without saying that ensuring high levels of corporate governance and financial stewardship should be givens.

EB: What do you mean by lights-out, data-driven decision-making?

IH: Put simply, that is what happens when the organization is fully digitalized; users create data as they do things and decision-makers get access to real-time data sets that they can manipulate and interrogate as appropriate to their needs. Apart from digital systems, there’s nothing in between the people who do and the people who think. Increasingly, people will manage themselves with systems doing most of the scheduling and coordination work that is presently the role of supervisors and middle managers.

EB: That sounds like some futuristic ideal. How practical is it in reality?

IH: Certainly, it represents an ideal state of affairs, but it is increasingly achievable with both new technology and new thinking about systems design. The trick is to take the ideal and figure out how far you are away from it today and how you are going to close the gap quickly. Merely getting to “somewhere else” by being, say, 10% better each year is no longer good enough. You might just
“In the Amazon case, the whole ecosystem comprises a mixture of its own trading operations and a wide range of independent traders.”

EB: By new technology, you are presumably talking about mobile devices, the internet of things, cloud computing, software-as-a-service, now even microchip body implants, etc?

IH: That’s right, but we will park that aspect for the moment. The potential of the technology will only be realized if there is a new approach at the organizational level. To achieve radically new system platforms requires the sort of investment that only the richest organizations can afford.

EB: Just a moment, are you saying give up hope now?

IH: No, not at all. Changing the way you think is free, and if you can do that then having access to the top technology is achievable.

EB: You’ll need to explain that too.

IH: Increasingly organizations are feeling more comfortable with using a suite of vanilla processes that together can provide the basic operating platform for their business, rather than going out and buying a new bespoke ERP system every few years. The new thinking says that if your business doesn’t fit the standard industry processes, then you change your business to fit around the off-the-shelf solution.

The real pioneers of the new service platforms are companies like Amazon, which remember has come from a greenfield situation without the legacy thinking that pervades most established companies. In the Amazon case, the whole ecosystem comprises a mixture of its own trading operations and a wide range of independent traders. It’s an incredibly complex business on a global scale that connects millions of different products with millions of people inputting data as suppliers and customers. In a similar manner to other trading platforms, such as eBay and Alibaba, micro-traders can offer incredibly niche products and services from their mobile phones, with next to no formal systems training. Can you imagine rolling out a training programme in your company for a new self-service computer system involving hundreds of thousands of people, many of whom aren’t even your employees? By any conventional standards, the Amazon model really shouldn’t work, but it does. It works because the fact we can all do clever things with IT at the weekends on our personal devices is pretty sophisticated. It’s only at 9am on Monday morning that we re-enter the digital stone age of the corporation.

Managers in both public and private sector organisations are now demanding Amazon-style efficiency, at Amazon prices. Managers want great service, total accountability and traceability in their business, but generally it doesn’t happen. Increasingly there is an appetite to say “let’s change our systems because we need that component in this place, delivered from out of our warehouse, now, and if we can’t do it, then we’re not competing with the global best”.

EB: But Amazon has taken years to design and hone its systems.

IH: And that, paradoxically, is the point. If any one company were to set out to emulate that sort of frictionless, large-scale system, it would also take them years. So, the new thinking is, don’t even bother trying. Instead, use vanilla systems based in the cloud, but figure out what is really special about your business in terms of what customers are willing to pay a premium for, and then do only that bit differently.

EB: Do you have an example of that?

IH: I’ll give you a slightly tangential
one, but it makes the point nicely. If I were to go out and buy an iPhone today, what I take out of the box is exactly the same as every other iPhone in that model. Yet, within half an hour it’s like no other iPhone in the entire world. It is unique, because of my choice of apps, because of the way that I configure it, because it has my data and my identity and because the way that it now works suits me, the way that I want to use it. I think we will see corporate systems looking more like that in the future.

EB: Is automation key to that vision?
IH: Absolutely. People in the business need to do things in the easiest way possible and be able to understand the financial effects of their decisions and actions in real time. This means connecting the front-end and back-end of the business as seamlessly as possible. Anything in the middle, between the people in the business who “do” and the people who “decide”, costs money and slows down the customer response. Put simply, business support processes need to be digital, data-rich, available 24/7, reliable and frictionless; that can only happen if they are fully automated.

EB: And by that you mean using RPA?
IH: Yes and no. We first need to be clear about what RPA means and that means defining the starting point. The first principle is to empower people in the business through technology to the point that there is no manual intervention between them and the central ERP. This is an attitude of mind that says “let the doers also be the thinkers” as far as is practical.

Now, while that is an ideal, most organizations are staring at a mishmash of different processes and legacy systems that require manual workarounds to move data between different processes and systems. While SSCs, and BPOs, have been very successful at consolidating and standardizing the bulk of processes and systems there is usually still a lot to be done that typically has to wait until the next scheduled ERP upgrade/consolidation.

In the meantime, most RPA initiatives are simply replacing the existing manual work, i.e. automating the necessary keystrokes because: 1) the business is yet not fully digital; 2) the legacy systems have flaws; 3) the various system components don’t talk directly to each other without intermediate spreadsheets; or 4) the business context and technology are changing faster than ERP systems can effectively be reprogrammed. There’s no shame in the latter, especially when there are takeovers and mergers to digest. But you can see the point that leading organizations will be able to reduce the lag between business change and system change if their programmers don’t have to wrestle with the basic stuff.

EB: Is RPA the right term then?
IH: Probably not. I prefer to think of most of the RPA that I see as being more about automated “scripts”. Think of it as a series of Excel-style macro instructions. Again, there’s nothing wrong in that if it helps to get started and produce some results, although there is a big caveat that I suspect we’ll get to later.

Automation is more appropriate when there is an existing manual activity that, if it cannot be obliterated, can be reduced to its essential keystrokes and decision parameters, and then performed digitally. Robotics is more appropriate when there is an opportunity to redesign an entire end-to-end process that maybe involves a number of subroutines and decision pathways; these robots will use sophisticated algorithms to draw on massive data resources. The business effect will be magnified when combined with artificial intelligence that has the capability to self-learn and adapt to changing business conditions.

EB: What do you see actually happening in SSCs?
IH: At present, most SSCs are merely looking to automate their existing manual processes. As one SSC manager put it to me: “I just need to take the human out right now, not put a superhuman in.”
EB: So, what else can robotics be?
IH: I won’t go into much detail here because it’s not where most organizations are currently at. However, as I said earlier, while there is a need to start somewhere, there also needs to be a vision of what’s possible to frame the overall journey. Basically, robotics can also augment human actions. Think automatic parking assistance on vehicles, or doing things that humans cannot do practically, for example, making a preliminary medical diagnosis in seconds using self-taught knowledge combined with access to massive databases of case histories and scientific research.

EB: Why do you think RPA is taking so long to come to the back office? By comparison, manufacturing robots have been around for a good while. Nowadays, they do some pretty impressive things, albeit each unit is generally very expensive and needs a lot of initial and adaptive programming.
IH: That’s an interesting comparison. My first observation is that the disparity is essentially about visibility. The robots, say, weld car components together are big and sexy to corporate decision-makers. There’s something tangible to see, something to touch, and that makes it easier for top management to sign off the significant capex required. In the back office, there’s nothing to see, and so RPA is harder to sell to the CFO. Second, the case for manufacturing robots has been helped by decades of adversarial industrial relations, but generally that has not been so much of an issue with white-collar workers. Third, improvements in manufacturing processes are often driven by customers or the need to keep up with the competition. The casual linkages between investment and overall firm performance are not so easy to establish in the back office, hence the danger of cutting the burden of back-office services without appreciating the bigger picture of the SSC providing seamless business support.

EB: But, to return to the question, what do you see actually happening in SSCs?
IH: Apologies. We’ve now got robotics—coming along in SSCs and, beyond the conference hype, you could be forgiven for thinking that nothing much is happening although there are some organizations out there that talk about having thousands of robots working in the back-office space. Without generalizing too much, I think most of the companies that I see are still coming to terms with the basic idea. The headlines are saying: “Wow, this is great! This is a new toolkit that can do all sorts of wonderful things.” Yet the reality is that, by and large, the initial activity is still experimental.

EB: Is that a problem?
IH: It ought not to be. The SSC model has been very successful at applying the “experiment and scale” approach: making incremental improvements, building on the wins and avoiding the grand plan, which tends to become too big to be realizable. While there is a merit in doing something now, I think that, ultimately, this is the wrong way to go. As RPA really starts to take off in a few years’ time, the central IT department will get hold of the business remodelling agenda and RPA will then become a quite different project. And I mean that in a positive way.

RPA will become a more strategic agenda for the overall organisation: that is with a vision, a strategy and serious budget. The IT function will be able to implement it with proper design and operating disciplines. The but in this scenario is that IT will first have to sort out another digital cottage industry of RPA applications that won’t necessarily be consistent and communicative. We have been here before with spreadsheets. For 30 years, spreadsheets plugged holes in and around central computer systems, but eventually myriad individual spreadsheets become an overall governance liability, to say nothing of being inefficient.

EB: So, you are saying that too much of the present approach to RPA is piecemeal?

“As one SSC manager put it to me: ‘I just need to take the human out right now, not put a superhuman in.’”

IH: I know some RPA vendors say that they try and take the big picture approach, rather than start with an easy problem and then scale it up. But, when I visit SSCs I ask: “what are you doing with robotics?” They tell me that they have made a start, but I say: “where’s it all going? Where will you be in five years’ time? What does lights-out processing look like in your business? What does data-driven decision-making look like for your business?” And, at that point, I tend to get some rather blank looks.

EB: What kind of resistance do you see within organizations? What prevents people taking the first step and then moving beyond the piecemeal approach?
IH: Those are hard questions. I think the real barriers are the perceptions that we all hold around the concept of a robot. Years ago, we had a TV programme in the UK called Tomorrow’s World. It was always coming up with a new robot or other that was going to clean your carpets, cook your meals and all the rest of it. We used to laugh and think how silly it looked, but 50 years later we still have that sort of mentality that a robot has got to look like us, with arms and legs.

Until we get past these simplistic images, which are still peddled by both the broadsheets and the tabloids, there is going to be an issue with implementing RPA in organizations. To anticipate your final question: “does that matter?” Well, it does to the extent that if your organization does not get ahead, then another organization, somewhere in the world, will do it and that is going to hurt.

Edward Brooks interviews Ian Herbert on TheRPAcademy.com