

Intelligent Process Automation in the BPO Space

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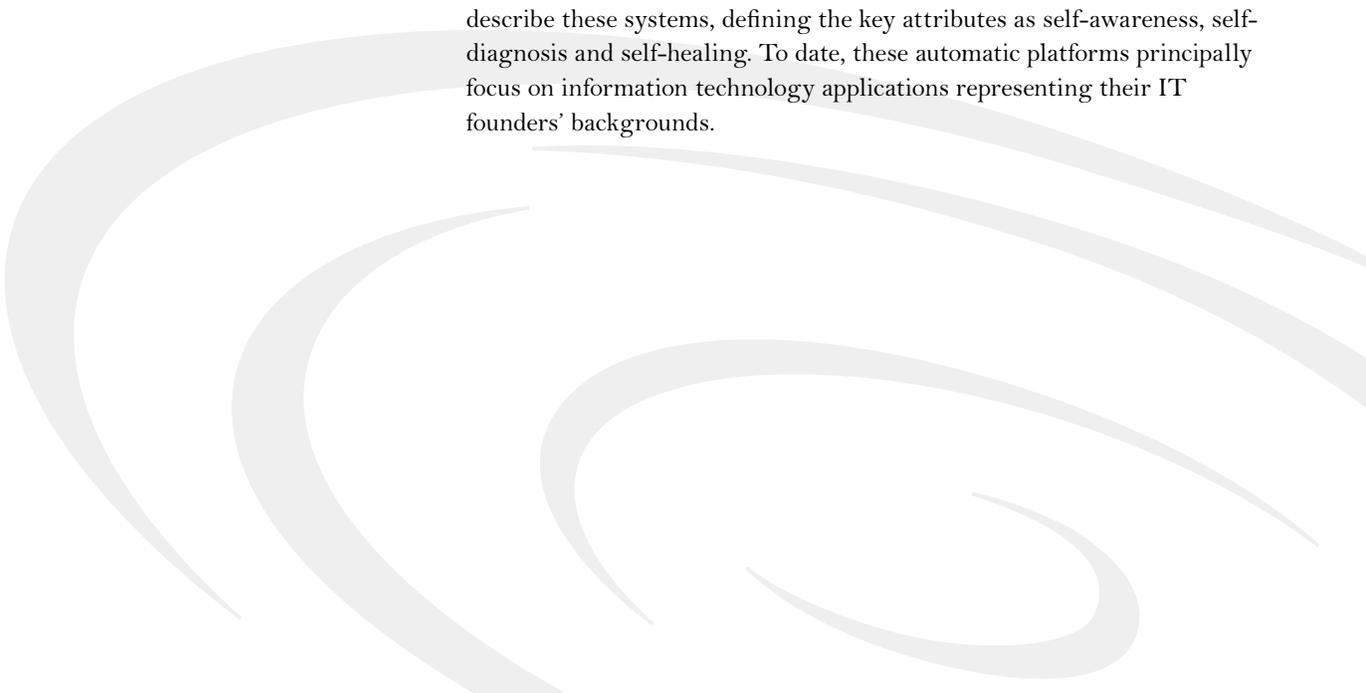
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The current state of intelligent process automation (IPA) is both cluttered and complex, which exacerbates clearly defining a vision for executing and selecting the correct technology. The software development firms producing these IPA tools have varying backgrounds and industry expertise which defines their products' design and capabilities. Additionally, the IPA space can be categorized into a number of specific types of automation which have intrinsically distinct capabilities. To formulate a coherent strategy and develop an achievable execution plan, it is necessary to understand the context of the IPA space in relation to your organization's specific objectives.

Evolution of process automation

Early solutions used tools to create macros. These macros automated manual processes or employed screen-scraping tools to copy data from one software application to another. In the 1990s, desktop automation tools executed business logic to automate moving data between the various software applications on a user's desktop. Both approaches improved efficiency and reduced errors.

In the early 21st century, emerging technologies permitted a more intelligent approach. Automatic systems enabled self-management through machine learning. A number of studies, white papers and position papers describe these systems, defining the key attributes as self-awareness, self-diagnosis and self-healing. To date, these automatic platforms principally focus on information technology applications representing their IT founders' backgrounds.



On a parallel path, innovators working from a business process optimization perspective started developing robotic process automation (RPA) technologies. The term RPA is widely misunderstood, but the accepted definition as published by the Institute of Robotic Process Automation is:

“... the application of technology that allows employees in a company to configure computer software or a “robot” to capture and interpret existing applications for processing a transaction, manipulating data, triggering responses and communicating with other digital systems.”

These technologies ultimately aim to replace human workers with software robotic workers. These robots need well-understood and static rules governing them. The data sources must also be well-defined, structured and reliably present. While more ambitious in their objectives than desktop automation, RPA technology typically remains focused on automating existing processes.

In the current decade, even more intelligent solutions have been developed and released. IBM’s Watson won accolades for soundly beating the historically best champions of the Jeopardy game show by demonstrating its ability to perform natural language processing, seemingly comprehend wordplay and apply analytic processing mimicking human thought. Cognitive systems aspire to true artificial intelligence. They demonstrate the ability to process unstructured data, perform machine learning and continually adapt complex business logic dynamically.

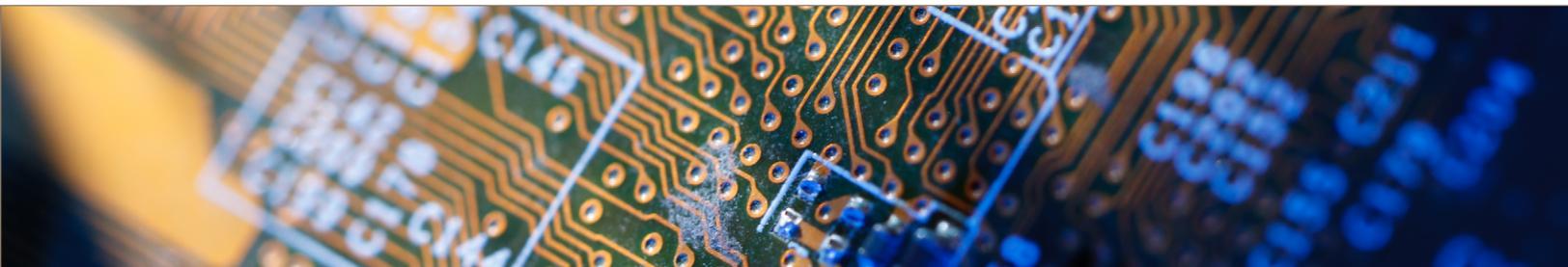
These technologies ultimately **aim to replace** human workers...

Market trends and observations

IRPA Network declared 2016 the “Year of the Robot,” drawing attention to intelligent process automation. Currently, C-level executives accept and support IPA, but still perceive it as tomorrow’s technology. A desire to improve predictability and quality drives this movement towards extended use of IPA tools. This represents a distinct shift in motivation; the desire for cost savings motivated adoption of earlier technologies. McKinsey reports that 85% of a typical company’s 900+ processes can be automated and that in 2014 an estimated 25% had already been automated—additional evidence of the adoption of IPA technologies.¹

In recent years, the evolution of tools in the IPA space has provided an extraordinary challenge to many BPO firms. With so many commercially viable solutions available across a wide and complex environment, it is a daunting task to companies seeking to employ these tools to select the correct partner and technology to implement. While these proven and emerging technologies improve efficiency, reduce costs and improve quality, implementing them is often difficult since the BPO does not typically own or control the infrastructure. The software development companies producing these tools are usually bereft of implementation resources, which further complicates this challenge. This shortage of skilled deployment resources has prompted some of the major BPOs to develop their own IPA tools. Others have elected to sign partnership agreements with one of the existing software vendors.

Our clients expect to roll out automation technologies in tandem with the service provider. Additionally, clients expect us to migrate away from utilization-based pricing models to ones based on outcomes or gain-sharing. These current trends directly impact BPOs. Implementing this challenging, fundamental shift in commercialization models requires support from executive leadership. It is difficult to introduce technologies that improve efficiency and reduce headcount when doing so under existing contracts erodes revenue or shrinks margins.



A complex space

The IPA space is complex—software provider functionalities span the capability spectrum. Here are guidelines to identify which capability may be the best fit for a specific scenario:

Use attended automation when a process cannot be fully automated. This is often true when subjective decision-making and task completion is required or if the underlying systems' architecture simply does not permit full automation. Desktop automation tools were designed to work in such scenarios and are typically easy to implement, as they are the least disruptive. On the downside, automation benefits vary significantly and may not produce sufficient gains in efficiency or quality to justify the investment.

Unattended automation normally delivers greater gains, as robotic workers are more reliable, strictly follow defined processes and deliver consistent results. However, such automation has more stringent requirements. First, the technology must be implemented within the client's environment, which is often a challenge for BPOs. Second, the rules must be well-defined and the processes fully understood and mapped. The time and cost to implement is often similar to, or even less than, that required in implementing desktop automation.

The greatest challenge is in designing and implementing collaborative environments where software robots work in tandem with humans. The cognitive technology tools learn by observing human behavior and adapting. Successful implementation of these tools includes processing emails, responding to online searches on knowledge bases, analyzing social media posts and processing voice-to-text transcripts. Cognitive tools process the unstructured data and either automate the correct response or direct the task to humans.

Recommendations

While there are many tools available, each with its own sweet spot within the spectrum, process optimization expertise is the critical factor in producing success. The right tool used in the right situation but implemented without a clear understanding of the process does not yield the expected benefit. Therefore, BPOs need to invest in expanding continual process improvement across their entire organization. The tools are designed to automate processes and not necessarily improve processes. The smart marriage of process improvement expertise with process automation tooling will produce maximum benefit.

To bring maximum benefit to both BPOs and their clients, we recommend leveraging a center of excellence (CoE) dedicated to designing, implementing and supporting IPA tooling across multiple industries and lines of business. Process improvement experience and teams of dedicated process improvement professionals can help the CoE staff identify and design solutions. Additionally, BPOs should use existing activity monitoring tools to identify inefficient processes or bottlenecks. These tools can also provide information to substantiate the recommended improvements. BPOs should use the leading solutions available for each niche so that they bring the right technology to bear in solving a client's problems. Most importantly, the BPOs need to work collaboratively with their clients to implement these technologies.

True artificial intelligence is becoming less of an aspirational goal and more of an accepted future state. In order to be prepared for the AI eventuality, BPOs must make the investment immediately to build competency with existing technologies, to maximize the experience in the process improvement resources and to develop new commercialization models which are tailored for the new process automation realities.

For more information

To learn more, please contact us at inquiry@concentrix.com or visit www.concentrix.com

Source

i. Dias, Patnaik, Scopa, & van Bommel, 2012



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