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How Robotic Process Automation and Artificial Intelligence Will Change Outsourcing

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Brad Peterson leads the Technology Transactions practice at Mayer Brown. As a corporate technology lawyer, Brad helps global companies work more effectively with their technology and operations suppliers, and he is one of the nation's most experienced and highest-ranked outsourcing lawyers. In the past five years, he has represented clients in increasing numbers of contracts with digital services providers, including cloud, data analytics, "as a Service" and automated process scopes and cyber security and privacy issues related to those scopes.



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Rohith George is a partner in the Technology Transactions practice in Mayer Brown's Palo Alto office. Rohith's practice focuses on assisting companies in a wide range of commercial, strategic, and technology transactions, including contracting for cloud services, emerging technologies, mission-critical software, and outsourcing. In addition, he regularly provides counsel to companies regarding the technology issues associated with mergers and acquisitions, joint ventures, and other complex corporate transactions. Rohith has represented companies in many different industries, including consumer products, insurance, financial services, chemicals, manufacturing, healthcare, and pharmaceuticals.

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~ *Chambers USA 2017*

“They are very good at being able to communicate and synthesize information in a useful and easily understandable way.”

~ *Chambers USA 2016*

“They're very practical in terms of trying to identify solutions and giving very good advice on areas where it's reasonable for us to compromise or, alternatively, where to hold our ground.”

~ *Chambers USA 2015*

“Their knowledge in this area is tremendous. They know us so well they blend into our deal teams and become a natural extension to our in-house team.”

~ *Chambers USA 2014*

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Introduction



What are RPA and AI?

What new capabilities will RPA and AI enable?

What is the trend for RPA and AI adoption?

What effect will RPA and AI have on outsourcing?

What do RPA and AI mean for your sourcing contracts?

What is Robotic Process Automation (RPA)?



- The application of technology that enables computer software to partially or fully automate human activities that are manual, repetitive and rule-based.
- RPA gives a company the ability to map out a business process that is definable, repeatable and rules-based and assign a software “robot” to manage the execution of that process.
- RPA software runs at the “presentation layer” (the user interface) of computer systems and appears to the applications to be a human user.

What is RPA?



Common Applications of RPA

- Because RPA can sit on top of a company's IT infrastructure, a company can implement the technology without altering existing infrastructure and systems.
- RPA depends on structured data, though the data can come from various different systems.
- Back-office clerical processes of the type sent offshore tend to be simple and transactional in nature, requiring little (if any) analysis or subjective judgment, and are good starting points for RPA.

What is RPA?



Robotic Process Automation (RPA)

– Illustration

1. A construction engineering business produces and sends over 500 invoices per month to customers, each requiring up to hundreds of pages of supporting data from a dozen different systems.
2. Each invoice previously took up to 5 hours to produce.
3. The work was converted to software robots and now takes only 11 minutes per invoice, with millions of dollars in savings.



What is Artificial Intelligence (AI)?



AI or “cognitive” tools work through pattern recognition. They have two functions:

- **First, capturing information**, which can be done through:
 - **Vision recognition** (e.g., recognizing a face or photo),
 - **Sound recognition** (e.g., transcribing spoken words),
 - **Search** (e.g., extracting data from unstructured documents), and
 - **Data analysis** (e.g., identifying clusters of behaviors in customer data).
- **Second, turning that information into something useful through:**
 - **Natural language processing** (e.g., extracting meaningful data from an email),
 - **Reasoning** (e.g., should I act based on the information given), or
 - **Prediction** (e.g., predicting buying behavior based on past purchases).

AI is Trained, Not Programmed



- **Machine Learning**

- With “machine learning,” programmers don’t encode computers with instructions. They *train* AI systems.
- Demis Hassabis, the leader of Google’s DeepMind AI team: “[training AI systems is] almost like an art form to get the best out of these systems. . . . There’s only a few hundred people in the world who can do that really well.”

- **Black box**

- “With machine learning, the engineer never knows precisely how the computer accomplishes its tasks. The neural network’s operations are largely opaque and inscrutable. In other words, it is a black box.”
-- *The Rise of AI – The End of Code*, by Jason Katz, *Wired Magazine*, May 2016

How does AI differ from RPA?



- AI can train itself or be trained to automate more complex and subjective work through pattern recognition.
- AI can process natural language and unstructured data.
- AI responds to a change in the environment, adapts and learns the new way.
- AI may replace human thinking (not just human labor).

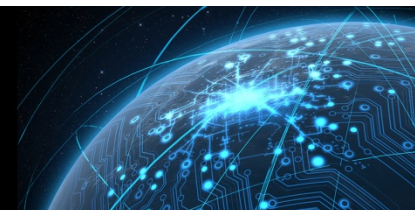


New Capabilities with RPA and AI

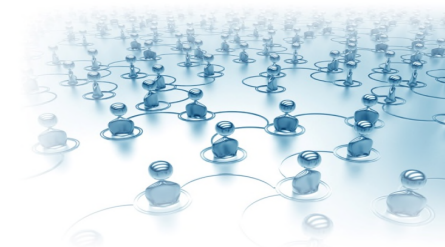


- **Increasing security.** A software robot could be used to execute a process as directed, without inappropriate data collection, fraudulent intervention or deviation from prescribed process.
 - E.g., could be particularly useful with the most sensitive data, such as personal pensions and administrative affairs of armed forces personnel, or financial services where having a person access multiple systems could increase the risk of fraud.
- **Promoting self-service.**
 - A principal barrier to the adoption of self-service is often technological.
 - Robotic process automation could be used to provide a means of deploying new self-service solutions where robots simply mimic the behavior of humans to perform backend transcription or processing activities.

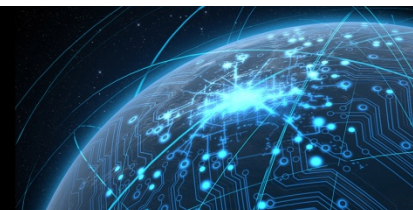
New Capabilities with RPA and AI



- **Promoting use of big data.** RPA software could be used to collect and organize inconsistent data from among disparate systems to make it usable by AI for big data analytics.
- **Creating interfaces with new cloud-based systems.** For example, RPA software could be used to enable automated ordering and provisioning of services through a cloud interface that is translated to work with more traditional systems.
- **Overcoming geographic hurdles.** RPA could allow clients to have work done in countries as needed by locating the servers there. It could also reduce the need to relocate operations to take advantage of labor arbitrage.
- **More to come.** One source estimates that it can replicate the basic transactional tasks impacting around 20% - 40% of processes. This percentage will increase as the technology develops.



Effect of RPA and AI on Labor Requirements



- **The last decade was about securing cheaper labor.** The coming decade will be about replacing cheaper labor with RPA and AI.
- **One software robot could replace multiple employees.** In one case study, 10 software robots replaced 20 human FTEs. The observation was that software robots accurately follow steps whereas humans, on the other hand, typically make 10 errors during a 100-step process.
- **Additional software robots can be deployed with relatively low marginal cost.** Consequently, software robots could be an effective means of scaling throughput at a fixed and known level of service and quality, by comparison to marginal labor costs. *Unless* the license fees make the marginal costs higher for the customer.
- **RPA will redefine roles and require new skills and training.** Training or recruitment of appropriately skilled personnel have to be factored into evaluating RPA solutions. There will be increased pressure to move from “jobs” to “tasks” that are allocated to human and non-human agents.

Effect On Outsourcing



- **RPA threatens the traditional model of many traditional outsourcing providers.** Many large global outsourcing providers built their business models around employing more people. More than three million people in India are employed in BPO work, and about one million in the Philippines.
- **Outsourcing firms are responding by building up RPA and AI capabilities.**
 - Through acquisition and investment: Cognizant acquired Trizetto; Genpact acquired Rage Frameworks; Wipro has created an AI platform called Holmes; Accenture has myWizard; Infosys has Nia; TCS has Ignio, which is now its own standalone platform.
 - Through partnership with RPA and AI vendors: AutomationAnywhere; Blue Prism; UiPath; Ipsoft; Automagic; Celaton.

What Do RPA and AI Mean for Your Sourcing Contracts?



- **Restructure Existing Contracts**

- Many service providers are already using RPA and AI to dramatically lower their costs without passing their savings onto customers. Contracts written years ago have no barriers to the provider's use of RPA and AI.
- Customers need to be proactive in demanding to share in the benefits of these RPA and AI innovations that are already taking place.

- **Include requests for RPA and AI capabilities in your RFPs**

- Include RPA and AI capabilities as a criterion in your evaluation and selection of outsourcing service providers.
- You may be able to include an onshore-plus-automation solution as a supplement to, or substitute for, a purely offshore solution.
- Focusing on RPA and AI may lead to identifying new potential service providers.

What Do RPA and AI Mean for Your Sourcing Contracts?



- **Consider whether incorporating RPA or AI will involve transformation**
 - If so, get a transformation plan with key commitments and incentives.
- **Consider what contractual commitments to ask for on RPA or AI**
 - Require visibility and perhaps approval rights on the use of RPA and AI solutions.
 - Decide who chooses them, who pays for them, and who the licensee will be.
 - Add obligations for RPA or AI to meet requirements, along with licensing and support clauses similar to a SaaS contract.
 - If practical, obtain testing rights and/or ability to review the code.
 - Add service level measures you will use to account for new service delivery method and commitments for improvements in quality and efficiency.
 - Provide for a reasonable exit path despite lack of an “export” function.

What Do RPA and AI Mean for Your Sourcing Contracts?



- **Structure pricing for automated services**
 - Build in cost-reduction commitments from the provider to take advantage of cost reductions available with RPA and AI capabilities.
 - Consider outcome-based measures in place of FTE-based measures.
- **Analyze whether use of RPA software affects compliance with the licenses for your other software**
 - For example, if you have a license for software (e.g., SAP) that is priced based on the number of users, how will the substitution of a software robot in place of humans be counted?
 - Do your other software licenses impose limits on interfacing RPA software with your other licensed software?

What Do RPA and AI Mean For Your Sourcing Contracts?



- **Re-think ownership and use rights for RPA and AI Solutions**
 - Watch out for suppliers obtaining rights to your data and generated insights.
 - Watch out for a lock-in to an RPA or AI solution.
 - Include the ownership or use rights the customer will get at expiration of the services agreement to avoid this lock-in or unanticipated costs.
 - Determine whether you can separate what the AI software learns from the AI system (i.e., neural network “black box”)?
 - Who owns what AI software learns as it gets smarter?
 - Specifically provide that work produced by RPA or AI will be treated as if it were produced by Supplier Personnel.



What Do RPA and AI Mean For Your Sourcing Contracts?



- **Provide for adaptation of RPA and AI solutions.** Include commitments to adapt RPA and AI solutions to changes in customer's platform.
 - If existing applications themselves are subject to change, will the software robots continue to work, or will the rules and workflows break as the application user interfaces change?
- **Consider hybrid customer/service provider solutions.** Because RPA and AI software are geographically agnostic, customers may retain responsibility for RPA and AI software and outsource the rest.
 - Requires balancing costs of licensing RPA and AI software and acquiring staff to configure and train software vs. leveraging a service provider's leveraged capabilities.
 - In some cases, a customer may want to host a service provider's RPA or AI software to avoid regulatory restrictions or privacy concerns. But this splits accountability for operational success of solution.

Conclusions



- **Probable RPA and AI Trend.** RPA and AI are likely to have a major transformative effect on how companies operate and what services they buy, but we are still in a relatively early phase of that trend.
- **Impact on Outsourcing.** The traditional outsourcing service delivery model is under threat, but many service providers appear to be responding by building or incorporating RPA and AI capabilities.
- **Re-evaluate Existing Contracts.** Service providers are seeing dramatic reductions in their costs, but existing customer contracts may not enable customers to share in those reductions, or may not provide any incentives for the service providers to reduce its FTE count.
- **Re-tool New Contracts.** In new sourcing contracts, secure commitments and incentives for suppliers to leverage RPA and AI with appropriate customer protections.



QUESTIONS

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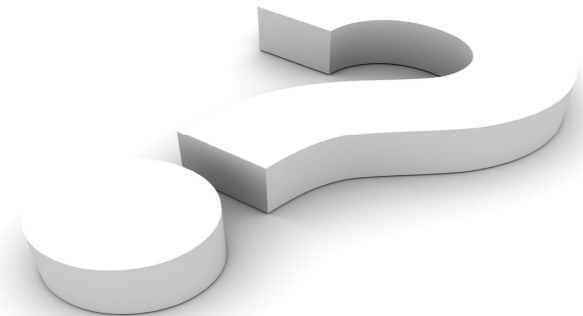
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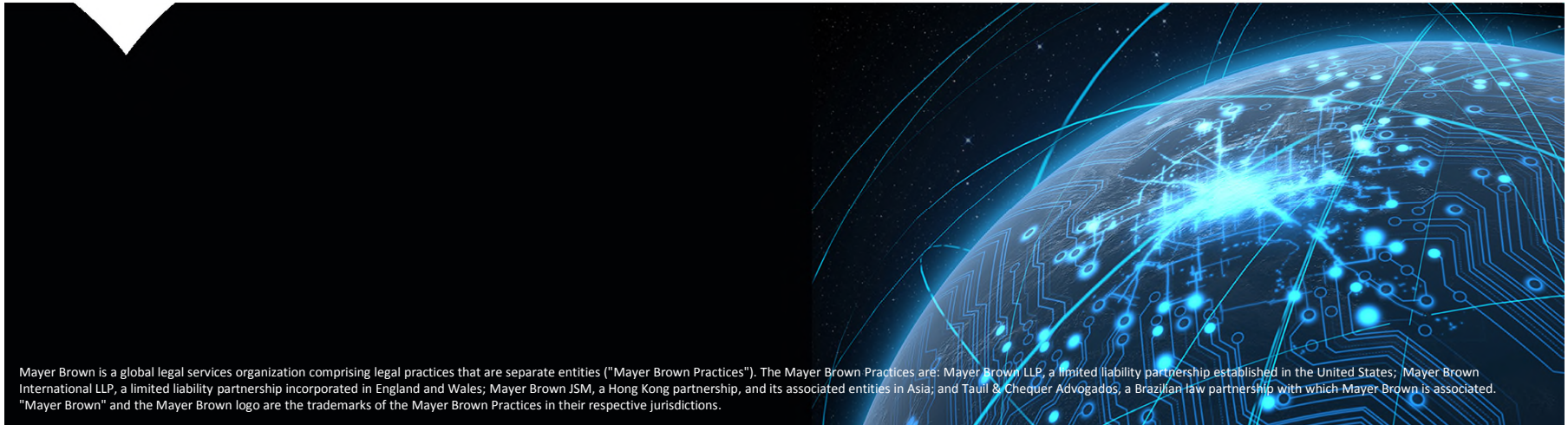


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