eggplant™

The Ultimate RPA Playbook

Robotic Process Automation

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Robotic Process Automation.

RPA the eggplant way delivers business performance gains by automating repetitive mundane tasks and graduating your human capital to focus on core revenue generating activities.

Robotic Process Automation, in its most basic definition, uses technology to automate business problems that are highly repetitive, well defined, and high volume. In theory, implementing RPA allows organizations to do things such as provide faster customer service, repurpose employees onto higher value work, or cut costs related to back-office functions that can be easily commodified. In effect, it is the ability to automate repetitive tasks, events, and decisions that create an entire workflow or business process.

Whereas the initial iteration of RPA was about the replication and automation of basic business workflows, it lacked the decision-making capabilities that would either direct business flows depending on data the workflow encountered and the general Machine Learning and Artificial Intelligence capabilities that are becoming more prevalent in modern software systems. The result was that people were still needed to pick and choose which workflows were being executed and be very involved with the start and verification of the RPA Process. However, with RPA 2.0, AI and ML are going to be heavily involved as companies expect their RPA processes to be self-guiding and be able to make the majority of business process decisions based on external factors data, environment, time, localization without the human intervention.

RPA 2.0 is, in effect, intelligent process automation. integrating AI and ML into Robotic Process Automation will provide further benefits to an organization. According to Gartner, "Robotic Process Automation usually costs one-third the amount of an offshore employee and one-fifth of an offshore employee."[1] Combine this with no worker errors, worker fatigue, and now AI and ML, there is massive upside for organizations that want to augment their workforce with RPA. Indeed, according to McKinsey and Company: "RPA's impact on the global economy could reach as high as $6.7 trillion" due to the technology having the same effect as matching the productivity of 110 to 140 million full-time equivalents (FTEs). [2]

RPA is said to have its roots in automated testing, which has been an integral part of IT Quality Assurance for over 25 years. In Automated Testing, repeatable, redundant test cases (or business processes) that were stable and non-dynamic were identified as "Automation Candidates." These Automation Candidates would be automated and executed using Automated Testing Tools. The effect would be that people could focus on higher priority, higher complexity test cases and let the Automated Testing Tool take care of the redundant tasks.

[1] https://www.gartner.com/en/finance/trends/robotic-process-automation © 2018 Gartner

[2] https://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/disruptive-technologies

RPA is not a silver bullet. It does not completely replace human interaction. It does not fix broken business processes. whilst it may streamline practices, RPA should not directly cause staff reductions. People are still required for the domain knowledge they bring and relying too much on technology may negatively affect Customer Service.

Applying the same best practices used in Automated Testing can lead to success in implementing an RPA strategy. In order to understand how, we must look at the core pieces of an RPA ecosystem.

Human Processes: These are processes, business flows, and domain knowledge, including the expertise to operate software, that make up the core pieces of what is done manually by people today.

Applications to be Automated: These are Front-Office or Back-Office Applications that are used to fulfill the business needs determined by the human processes.

Data: All processes use data. It is entered, transformed, relocated, or produced. Data is what makes the business process move.

RPA Tool: This is a tool dedicated to the creation, maintenance, utilized data, and verification process of the automated business process.

Company Culture or Values: Perhaps the most important piece. Even though the process is going to be automated, RPA practices cannot lose sight of the business outcome or delivering a consistent customer experience.

Best practices implementing RPA are very similar to Automated Testing Best Practices:

1. Process:

- Analyze the end to end process through the eyes of the customer
- Prioritize the business processes to automate
- Determine the ideal business outcomes per process
- Refine the process to optimize and cut out redundant or unnecessary steps

2. Evaluate Expertise and Domain knowledge:

- Get feedback from staff, management, and if necessary, the end customer
- Understand what works, what doesn't work, and what can be improved
- Understand the number of touchpoints the process has within the organization. The more touchpoints, the more integrations and the higher the complexity.

3. Choose a process to pilot:

- Make sure it's low risk and demontrates the potential of RPA
- Understand the benefits and lessons learned, integrate those lessons into the larger rollout

4. Identify Functional Integration Points:

- Determine what needs to be automated and verified
- Understand where data needs to come from
- Determine what needs to be monitored for failure

5. Define and adjust KPIs and SLAs:

- Adding RPA may enhance and reduce KPIs and SLAs that will directly impact customer experience, NPS scores, etc. These are critical to improving customer service

Eggplant DAI is well-suited for implementing RPA 2.0 now.

Eggplant is a leader in both the Gartner Magic Quadrant and Forrester Wave for software test automation[3]. Eggplant holds this position because of its industry changing AI engine that generates, executes, and evaluates business processes as well as its ability to non-invasively interface with any application or platform, anywhere around the world, on any device.

The eggplant DAI Suite implements RPA by using the eggplant AI modeling engine to create a digital twin of the business process to be automated. Business processes are represented in terms of States and Actions. Actions are then automated with "snippets" of code with eggplant Functional. eggplant Functional allows for non-invasive automation of any device, any platform, and any software. eggplant Functional can automate any front-office or back-office application. eggplant DAI can work with any data repository or even scrape data directly from the screen to go seamlessly from process to process. Finally, eggplant can validate
that the process was executed correctly by its extensive verification and validation functionality. This verification functionality allows for instantaneous alerts in case there is a problem.

Eggplant DAI brings the power of RPA 2.0 through use of its Tensor-flow based artificial intelligence engine. One of the main components for RPA 2.0 is the ability for AI and machine learning to determine which business process to execute based on data or another one of many external factors. The AI decision making engine and the ability to either leverage existing data or dynamically get its own. The diagram below illustrates how eggplant DAI can be used in your RPA implementation:

1. Data Set moving into
2. Eggplant AI model
3. Arrows showing automation against front and back office applications
4. Some sort of output

Now, give RPA a try with Eggplant DAI:

Getting started with eggplant for your RPA process is inexpensive, fast, and easy. The learning curve for a non-technical person to become certified in eggplant DAI is 2 weeks. Models for even the most complex of processes can be generated in a matter of hours.

Contact eggplant today.

[3] https://info.eggplant.io/gartner-magic-quadrant-18
https://info.eggplant.io/forrester-wave