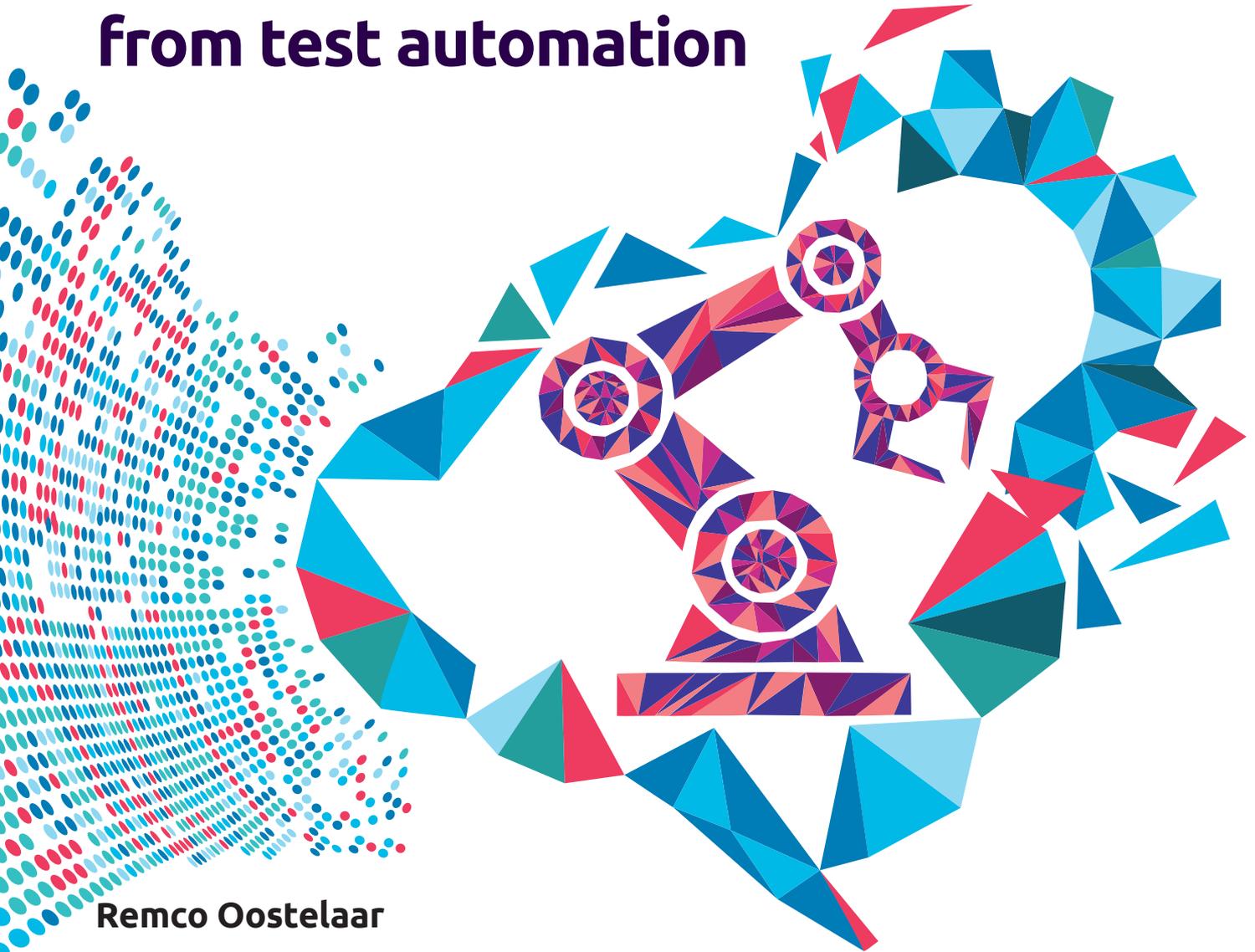


RPA and what we can learn from test automation



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Robotic Process Automation (RPA) is the automation of repetitive business tasks and it replaces the human aspect of retrieving or entering data from or into a system, such as entering invoices or creating user accounts across multiple systems. The goal is to make the process faster, more reliable, and cost-effective.

Low-cost tasks with the no risks in high error areas can be fully automated. With the introduction of Artificial

Intelligence (AI) and machine learning (ML), other options became available including customer support functions such as chatbots and voice bots answering IT support and customer support desk questions.

Many companies have begun researching these opportunities and have invested in new tools and resources to automate business processes. The first RPA projects delivered significant success in reducing double-digit employee

headcount by automating the main critical processes. However, the second wave of automation brought with it complications. Organisations started to understand that scaling RPA involves a lot of organisation, planning, and maintenance.

Key issues are:

- The second wave of automation often includes more complex scenarios with multiple permutations of data that needs to be handled manually
- Setting up a network of automated bots means the organisation has to rethink its architecture layer and include it in the IT organisation (often RPA starts first at the business side with no formal oversight).
- Changes in upstream and downstream applications need to be validated against the scope of the bots deployed into production. They will become an official checkpoint for delivery into production (or part of the CI/CD model)
- Bots such as test upgrades and internal and external security need to be maintained and supported.

As a result, the implementation of RPA is slower or on-hold in many companies until issues on RPA-at-scale have been addressed.

What can be learned from test automation?

If you validate RPA issues with those the test organisation overcame to make its test automation work, you will find a lot of common elements. In both cases, when building the first automation the test was not the issue; however, delivering test automation at scale means having to rethink your automation approach and delivery model. Listed below are a number of similarities in the challenges associated with the set up of RPA and test automation. See if your automation lead can help you improve the level of RPA within your organisation.

- Start with a plan and blueprint the architectural implications before installing RPA within your organisation. As in test automation, the team that is going to set up the automation will create a network of integration with systems and possibly will set up new roles and responsibilities that need to be maintained. Running something autonomously means you need a high level of trust in the automation. Building test automation scripts has the same complexity, and you need to work with the business.
- Within the test organisation, there are automation experts who are fully dedicated to the automation framework and enablement. Their focus is to ensure the lifecycle of the automation is maintained, that new changes can be seamlessly integrated, and that changes in the systems are managed and incorporated to ensure test automation will continue to work. In the case of RPA, you need a product owner that works with the team to drive the same level of consistency.
- Make RPA part of your test and QA processes, and include them as part of the continuous testing model. This will ensure the deployment of RPA will continue to run, and the business will not be impacted by downtime.
- As testers understand, people are best-suited to solving complex problems while an automated bot can execute a repeatable process better than a human. So rethink how, where, and for which tasks you want to introduce automation.
- Understand that you are implementing a new tool, not a solution. In some cases, there are better ways to solve the issues you are trying to automate.

In the future, RPA and test automation will merge into one area, as both have the same customer drivers—cost, speed and quality—and the skillsets are exchangeable. Tool providers are crossing-over to each other's areas and, with machine learning and AI, this will only accelerate.

