

Robotic process automation in the Swedish public sector

In the struggle to meet the future increased care need due to an ageing population the Swedish public sector is employing robotic process automation to do more for less. We examine how software robots have been implemented in three Swedish regions and what they have learnt in the process.

Robotic process automation, RPA, is a technique for automating digital, manual tasks. Its unique feature is the possibility to interact with information systems and applications using the graphical interface, the same way as a human would. This outside-in approach makes it easier to integrate less accessible systems.

Connected to RPA are two concepts – robots, see figure 1, and processes. Robots are allocations of computing power that perform processes and come in two main varieties, attended and unattended. Attended robots are run locally on the computer while unattended robots are run on a server. Processes are collections of instructions for the robots to perform. Robots are limited to performing tasks that are digital and rule-based, since they have no presence outside their digital world and cannot (yet) make decisions where the decision rules have not been clearly defined to them.

The ease of building these processes and defining the rules is one of the strengths of RPA, making configuration of RPA solutions fast and possible to perform by employees without a technical background, making automation creation possible to a larger part of the organization than with many other traditional automation techniques.

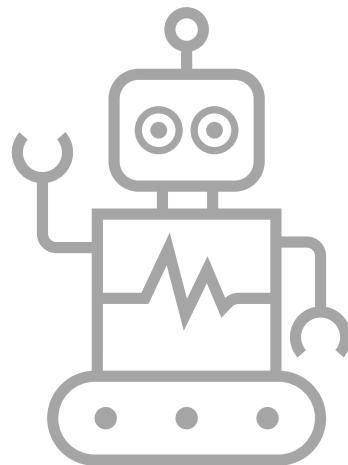


Figure 1 Robert the robot, an RPA robot illustration.

RPA vendors and providers make bold claims about the increase in efficiency, the reduction of errors and boost in employee morale their products will bring – but how beneficial is the technology in reality?

In the study, employees of three Swedish regional councils - Region Skåne, Region Stockholm, and Västra Götalandsregionen - were interviewed. The interviews aimed at giving an overview of their implementations of RPA, what benefits that have been realized and to spread the experience and knowledge the regions have gathered related to RPA.

The study found that all three regions have implemented RPA solutions, and while the implementations differ a few commonalities were found. All three are scaling-up the use of RPA and see it as a way to shift resources from administration to healthcare and they are all establishing central organizations with the purpose of providing RPA solutions to the rest of the organization.

The number of hours saved each year by the processes identified by the study was found to differ a lot – one process implemented in one region saves more time than the whole RPA initiative in another region. This indicates that process choice is paramount to realize the potential of RPA.

One RPA solution in Region Stockholm was found to save regional employees from going through 1300 pages of invoice details by letting a robot reviewing invoices for translation services. With the robot's keen eye for details, it is expected to save the region close to 2 MSEK each year in detected erroneous claims.

Even though this particular process was received with much relief that is not always the case. In the interview's, organizational resistance and fear of job-loss was reported – highlighting the importance of including affected personnel in the automation process.

And even without accounting for employee reluctance and organizational doubts there are drawbacks with the robot approach to automation. RPA implementations are highly sensitive to any changes to the graphical interface and the need for maintenance was raised as a concern in many interviews.

While we could not conclude that RPA has made all the included organizations more efficient, the indication is that it has for some. Hopefully, the study will be of value to the included regions and similar organizations in their future work with RPA.

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