Improving Your Operational Efficiency using Robotics

- The Pain of Manual Processes and The Gain of Robotics

Created by: Henrik Olsen – Head of Business Architecture
Who is Henrik Olsen

- Head of Business Architecture & Innovation in DSV A/S
- Started in DSV in 1997 as a freight forwarder
- Worked with different areas in IT since 1999
- Worked with Mobility since 2007
- Worked with Process Efficiency and Robotics since 2010
Agenda for the next 60 minutes

- What do DSV actually do?
- The Pain of Manual Processes
- The Gain of Robotics
What do DSV actually do
What is DSV as a company?

- 4th Largest Freight Forwarding Company in the World
- 44,000 employees worldwide in 3 divisions
- 17,000 units of equipment on the road every day in Europe and 4,000 in the USA
- 11,500 trailers are owned by DSV. Rest is chartered on the spot market, shorter or longer contracts
What is Robotic Process Automation (RPA)
Robotic process automation tools are a way to cut costs, increase quality, eliminate keying errors, speed up processes and link applications together.

Companies (especially CxO’s, IT Management and Enterprise Architects) must understand the capabilities of these tools and evaluate the need for them within their operations so they can support the business needs.
Robotic automation revolution

Will a robot take your job?

Type your job that could be automated with AI.

About 35% of current jobs could be automated with AI in the next 20 years, according to Oxford researchers.

ROBOTS WILL STEAL YOUR JOB, but that’s OK

Robots won’t just take jobs, they’ll create them.
What is then the difference between Robotic Process Automation (RPA) and Business Process Management (BPM)?

**BPM**
- Complex Business Processes
- Multiple roles
- Human decisions on the way is needed
- Bigger processes
- Longer projects
- Bigger investments

**RPA**
- Less complex Business Processes
- One role
- Manual processes or poorly supported by IT
- Rulebased decisions
- Shorter projects
- Smaller investments
Difference between Rule-Based and Artificial Intelligence Based Automation

<table>
<thead>
<tr>
<th>Rule-Based</th>
<th>Artificial Intelligence based</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robotic Process Automation</td>
<td>Cognitive Engagement</td>
</tr>
<tr>
<td>Business Process Management</td>
<td>Cognitive Computing</td>
</tr>
</tbody>
</table>

Logos:
- UiPath
- blueprism
- Pega
- IBM
- webMethods
- Google
- Android
- Apple
- IBM Watson
- Microsoft
The Evolution of Automation

**Current State**
- **Manual Labor**
- **Scripts**

**Target State**
- **Scripting of Scripts**
- **Machine Observation**

**Future State**
- **Machine Learning**

**Labor Efficiencies**
- Labor Elimination

**Methods**
- **Manual Execution**
  - Manual
    - One off
    - Non-repeatable
- **Scripting**
  - Task
    - Standard
    - Repeatable
- **Orchestration**
  - Activities
    - Complex
    - Standard
    - Multi-Scripted
- **Autonomics**
  - Processes
    - Non-Standard
    - Dynamic
- **Cognitive**
  - Systems
    - Self-aware
    - Predictive
    - Self-Learning
    - Self-Healing
Universal challenge drives use of robots
The Pain of Manual Processes
Reasons for using Robotic Process Automation Tools?

- Simplifying
- Paper Less
- Quality
- Value making

Less time spend on administrative tasks
Competitive prices by reducing cost per consignment
Reasons for using Robotic Process Automation Tools?

This means that efficiency and automation is needed!
The Upsides of Robotics Process Automation

- **Traditional Onshore Labor**: $100K/Year
- **Offshore Labor**: $38K/Year
- **Digital Labor**: $13K/Year
The Gain of Robotics Process Automation
How we are using Kapow to “kill” manual and time consuming processes

- Focus on creation a team of local experts and train them
- Create a Core Kapow Forum to share the knowledge – governed by IT
- Use PoC’s and real life examples as “The Selling Point” in the organisation
- Ensure ownership within the business. They understand the need
How to get started and why DSV started – looking at The Long Tail of B2B integration
How to get started and why DSV started – looking at The Long Tail of B2B integration
Intelligent robots automate the manual work performed

“Intelligent Software Robots”

Agile development
No coding

- Websites, Portals
- Legacy apps (Green screen)
- Digital documents
- Databases
- Data files
- XML
- Email
- Excel
- Systems
Many use cases for Robotic Process Automation

### Web Robots - Data Collection

**Banking**
- Equity research
- Compliance and risk management

**Information & Services Provider**
- Data aggregation
- Screening and risk management services

**Retail, Travel**
- Competitive intelligence and price monitoring
- Brand monitoring and fraud protection

### Process Robots - Automate Manual Business Process Activities

**Banking**
- Mortgage lending
- Compliance reporting
- Customer service
- Client onboarding (KYC/AML)

**Cross-Industry**
- Finance and accounting
- Sales operations

**Healthcare**
- Patient eligibility
- Physician credentialing
- Customer service

**Logistics**
- Order scheduling and tracking
- Invoicing and credit collections
- Researching loads

**Shared Services Groups, Business Process Outsourcing (BPO)**
- As a principle all tasks can be automated in a Shared Service Group
- For BPO there is a high amount of tasks that can be automated
- This comes of we tend to forget to do efficiency before outsourcing the task

**Manufacturing**
- Supply chain automation
- Inventory Tracking and Processing
- Pricing & Procurement

**Insurance**
- Claims processing
- Compliance reporting
- Customer service
How simple is Robotics
DSV Use Case: Working with Terminal Emulators
DSV Use Case: The claims handling process

1. Claim from X-net
2. Lookup information in CW (slide 3)
3. Lookup information in CL (slide 2)
4. Lookup information in other systems
5. Liability letter to subcontractor
6. Ack. Letter to client
7. Information sent to InsuBiz
The Market
### Which vendors are out there

<table>
<thead>
<tr>
<th>Core RPA Vendors</th>
<th>Multiple Software Vendors</th>
<th>IT &amp; Business Process Optimization Vendors with own RPA software</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automation Anywhere</td>
<td>Jacada</td>
<td>AssistEdge, owned by Infosys</td>
</tr>
<tr>
<td>Blue Prism</td>
<td>Lexmark (Kofax Kapow)</td>
<td>Syntel</td>
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<tr>
<td>Contextor</td>
<td>Nice</td>
<td>Tech Mahindra</td>
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<tr>
<td>Epiance</td>
<td>Pegasystems</td>
<td>Xerox (Conduent)</td>
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<tr>
<td>OpenConnect</td>
<td>Verint</td>
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<tr>
<td>Kryon Systems</td>
<td>Redwood Software</td>
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<tr>
<td>UiPath</td>
<td>WorkFusion</td>
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How does Forrester and Everest Group see the market

The Forrester Wave

Everest Group
There are at least 20 tools labeling themselves as having robotic process automation style functionality.

Most vendors do not have an implementation division to deploy the solution and are working with 3rd party. Be careful about the ecosystem.

Massive proliferation of automation and artificial intelligence (AI) vendors and tools will continue.

It is challenging to identify exactly what each of the tools does, and in which scenarios each tool makes sense in contrast to other software or AI tools (e.g. Business Process Management).

You should not hope that one tool will solve all automation needs. The is a steep learning curve to establish what is needed in the business and how to solve it.

There is lack of clarity between types of automation tools and which tool should be used in which circumstance.
Change Management
Why Change Management?

Our **purpose** is to qualify Managers to actively drive business change:
- Balancing typical employee resistance
- Building desire to participate in changes and
- Secure successful implementation of change

The **objective** is to teach managers how to use the ADKAR tool:
- Provide background knowledge on Change Management
- Most typical psychological reactions to change.
- Tips and tricks to manage employees successfully through a change
"I understand why…"
"I have decided to…"
"I know how to…"
"I am able to…"
"I will continue to…"

**AWARENESS**
- Nature of the change?
- Why is it needed?
- The risk of not changing?

**DESIRE**
- What’s in it for me (WIIFM)
- A personal choice
- A decision to engage and participate

**KNOWLEDGE**
- Understanding how to change
- Training on new processes and tools
- Learning new skills

**ABILITY**
- The demonstrated ability to implement the change
- Achievement of the desired change in performance or behavior

**REINFORCEMENT**
- Actions that increase the likelihood that a change will be continued
- Recognition and rewards that sustain the change
Conclusion
Why Robotics is good for DSV

Average 10-15 hours per robot (simple one like the example), easy to build by non-developer.

Minimal coding required, minimal database knowledge, even with interface to internal systems.

Don’t need to wait for other websites and companies to provide API’s for programmers to use.

Configure and schedule robots easily to meet your timing requirements without impacting your customer’s site.
Key takeaway – Reduce Cost or Customer Satisfaction

Back office automations drives cost down and reduces errors

Front office and IT automations drives customer satisfaction
Key takeaway - Make sure the solution are Enterprise Ready

Enterprise Ready – What do I mean?
• We found out that all solutions are working fine in the small scale
• But when the amount of robots is growing and they replace more and more manual work – then we started to see issues
• Mainly from the IT side of things as most solutions are not Enterprise Ready in a large scale
• Difficult to control when you use it global

Enterprise Ready – Is it important for the Business Case?
• We understood that the need for IT servers (physical or virtual) increased as most solutions comes from Desktop Automation – so the more robots – then more Desktops (virtual)
• This increased the maintenance work and also the need to secure uptime as we are replacing manual work with automatic work
• Execute more within the server based setup (Web Browser, Excel, Terminal Emulator, Database, Emails, Web Services, PDF etc)
• So be careful with the Return of Investment as you may save in the business – but not overall!
Questions & Contact Details

Contact Details

Henrik Olsen
henrik.olsen@dsv.com

Head of Business Architecture
DSV A/S