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To Master a New Technology, You Have to Play with it...

— **Jordan Peterson**
Clinical Psychologist

Daniel Oostdam

How to get started with Intelligent Automation

Are you discussing to start using Artificial Intelligence or Intelligent Automation, but have no clue where to start? In this article we explain how to start with Intelligent Automation. But first, what do we understand under the term "Intelligent Automation"?

On the one side there is Robotic Process Automation (RPA), which is software capable of automating simple rules-based tasks, often performed in high-volume and highly repeatable, which previously only humans could perform. RPA can mimic the interactions of a human and connect to several systems without changing the underlying systems as it operates on the User Interface level (or GUI). One drawback of RPA is that it will needs structured data as input and can only perform standardized processes.

Intelligent automation is about giving these rote robots a method to learn and reason how to interact with unstructured data. We generally see the following capabilities within Intelligent Automation – Image Recognition, Natural Language Processing, Cognitive Reasoning, Conversational AI.

In this article we will further outline what Intelligent Automation is, how to get started with it and what the use cases are.

Start simple, Start with RPA

Our research shows that 70% of companies have implemented RPA. Only 12% of companies have automated more than 50 processes and only 7% have progressed into enriching their RPA with Intelligent Automation. Wherever you are in your automation journey, make sure to first implement RPA successfully. Taking learnings from a successful implementation of Robotics can help kickstart your AI experience. Read our article about the common **pitfalls of RPA projects** and how-to **successful build an Center of Excellence here**.

After successfully implementing Robotics into your business you will reap benefits such as increased quality, 24/7 handling of cases and freeing up your staff from tedious work to give them more room to work on processes that really matter to your customers. However, you will notice that a lot of processes can't be automated with RPA only....

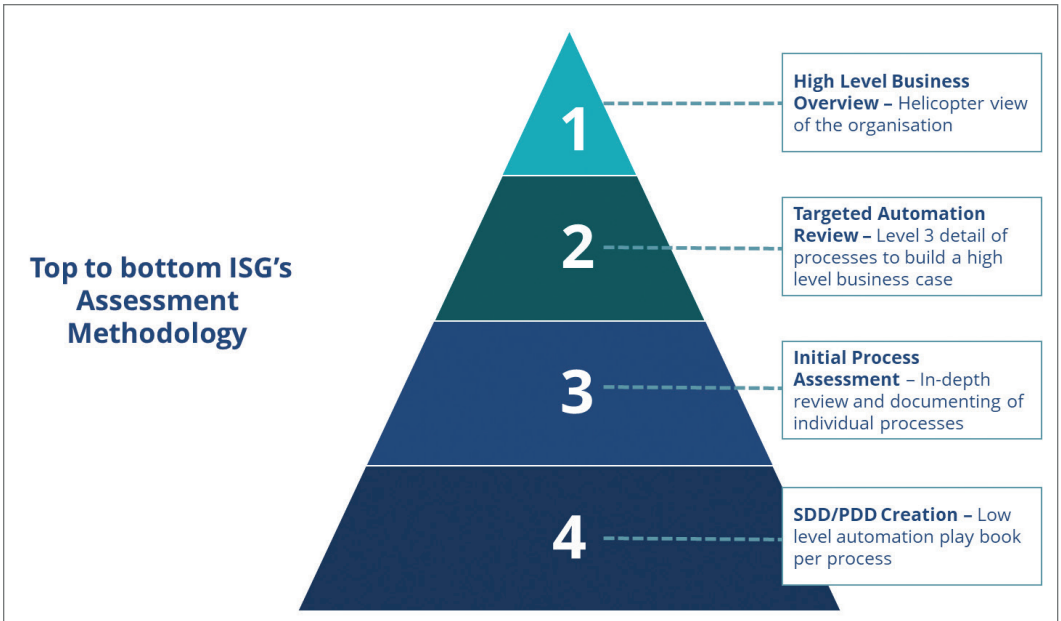
The next step, into the Intelligent realm...

To unlock more automation potential in your current processes you can use Intelligent Automation. As already said, Intelligent automation gives your rote robots the ability to interact with unstructured data.

A successful Intelligent Automation project starts with selecting a good use-case. There are multiple ways to identify use cases, for example a bottom-up approach (ask your employees for input) or top-down approach. Our experience is that the bottom-up approach results in

smaller and less frequent processes to automate (e.g. a report that runs only once a week). Automating these processes can be helpful to lower resistance with your employees and change the way your employees look at your automation program. However, this will not result in significant savings or Customer Experience improvement if used in isolation. Ideally, a multi-pronged approach works best working from both the top down and the bottom up.

A top down approach requires looking at the Organization Chart to define where most FTEs are working and which processes they are working on. Try to identify the large processes and assess which technology can help where. A process doesn't have to be automated end-to-end, only automating a process step can in many cases result in significant savings and/or improved customer experience. And let your employees keep working on processes and process steps where they add real value!



Source: ISG, 2020

Tool Selection

After selecting the process, select the tool(s) needed to automate (part of) the process. The tools and capabilities have changed significantly over the last few years. In the past, adding these technologies would break your business case, nowadays they tend to make a business case - pricing and implementation time have been reduced.

Techniques that are used in Intelligent Automation can be categorized in the following technology types:

Source: ISG, 2020

Look

Optical Character Recognition (OCR) is the conversion of images of typed, handwritten or printed text into a digitized form. Image recognition is the process of identifying and detecting an object or a feature in a digital image or video.

Popular use cases:

- Invoice Scanning: Digitize scanned invoices for further processing
- Passport Face Detection: Assess passport photos to determine age, sex and other facial attributes to validate documents
- Face verification: Check if a passport photo and a webcam photo match

Source: https://azure.microsoft.com/en-us/services/cognitive-services/face/#demo

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Read/Understand

Reading and understanding text is done through Natural Language Processing (NLP). It applies computational techniques to analyze and synthesize natural language and speech. This technique can be used to understand the intent of a message and transforms the unstructured message into a structure which can be used as input for RPA.

Popular Use Cases:

- Chatbot for answering HR FAQ
- Chatbot for self-help from the IT Service desk

Decide

Cognitive reasoning is the ability to make complex decisions based on previous knowledge absorption and provide rational as to the decision made.

Popular Use Cases:

- Risk assessment in Insurance Underwriting based on 100s of datapoints
- Augment back-office workers when making complex Tax judgements

Communicate

Conversational AI is the evolution of NLP that powers the Virtual agent, able to hold well-structured conversations.

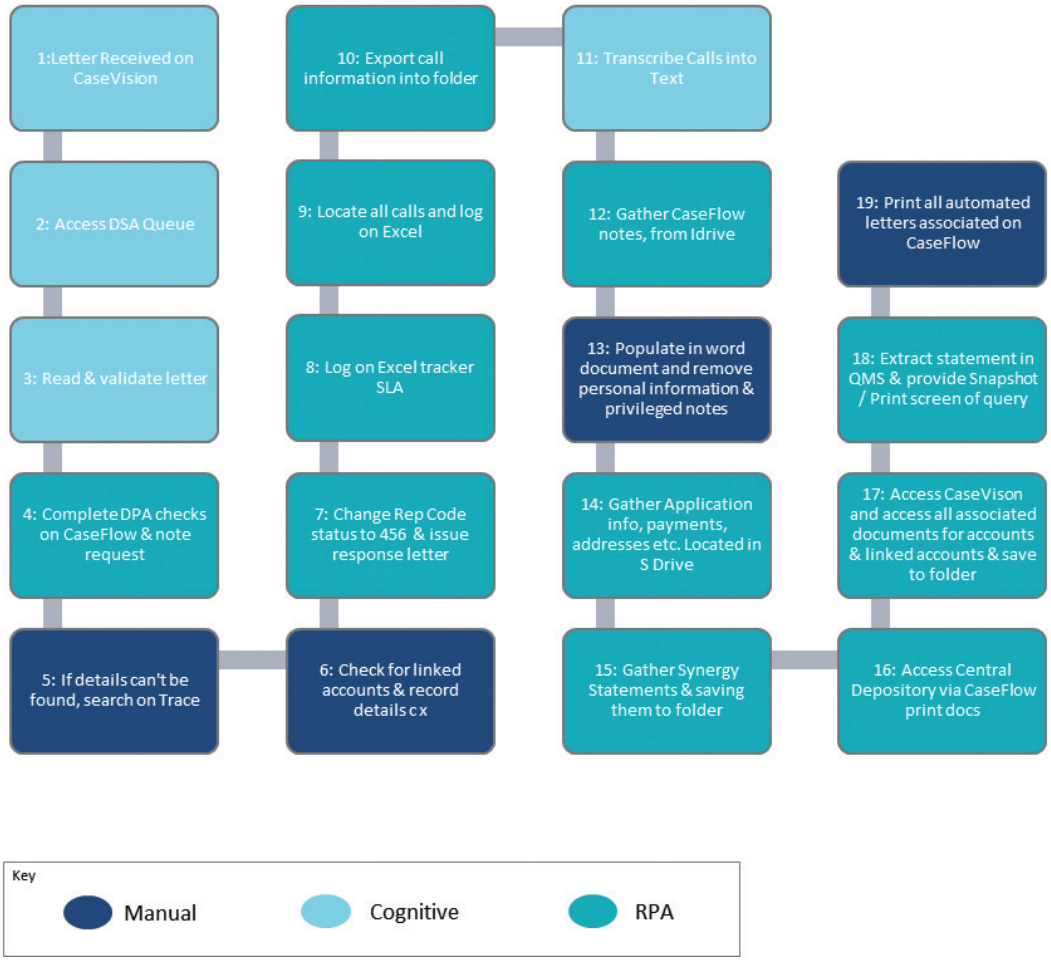
Popular Use Cases:

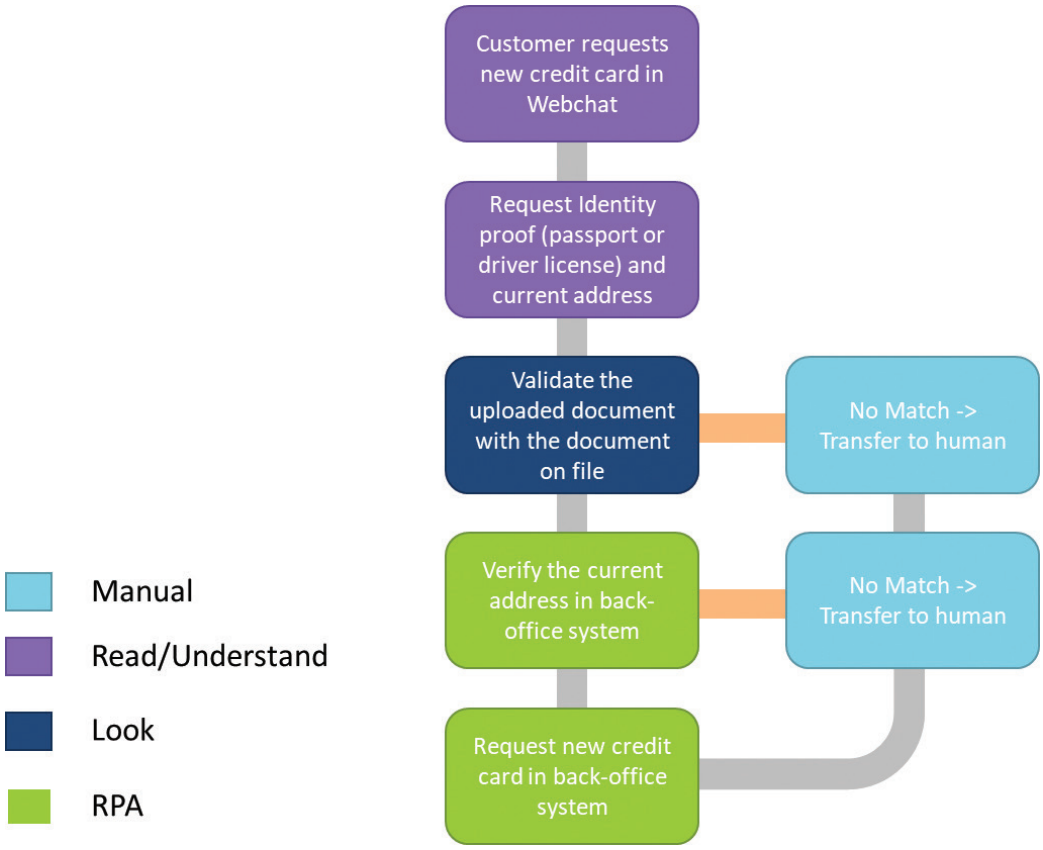
- Have a human-like conversation with a costumer and seamless hand-off to human if needed
- Create a virtual assistant that can capture intent and emotion during a conversation and determine the best course of action

Business Case and Roadmap

After selecting the process and the tool(s), estimate the implementation cost including licenses and the benefits. These benefits can include freed up FTEs but also improved accuracy or increased speed. If the business case is positive and the stakeholders agree with it, continue planning for the further implementation of the process. Create an automation pipeline to keep an automation focus in the organization.

Use Cases





Source: ISG, 2020

Recap

So to sum it all up. To master Intelligent Automation you will have to play with it....take the following steps to achieve success:

1. Start simple if you haven't done so already. Start with excelling at the use of RPA. After automating the low hanging fruit with RPA, you can use Intelligent Automation to unlock more automation potential from your processes with different technologies.
2. Select the correct use case, this is crucial to make your project a success.
3. Understand what tool does what, and where it can help you solve your business problems
4. Create a business case and a roadmap to keep traction in the organization to keep automating more processes.

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ABOUT THE AUTHOR

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Daniel Oostdam is an experienced consultant working in ISG's Intelligent Automation Unit. Daniel helps clients growing their Robotic Process (RPA) and Intelligent Automation (IA) adoption. He supports clients with creating Operating Models, establish center of excellence teams as well as managing Digital Labour Transformations and RPA IA implementation projects. He has more than 13 years of experience in Insurance, project management, process improvement & automation and shared services/business process outsourcing.

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