Financial Executives International

Intelligent Automation

October 23, 2018

The better the question. The better the answer.
The better the world works.

EY
Building a better working world

Who is with you today

Alan Thom: Alan Thom is an Associate Partner in the Advisory Services practice of Ernst & Young LLP and is based in Edmonton. With 26 years of consulting and financial experience serving public and private sector organizations, Alan's areas of focus include large scale business transformation, IT transformation, as well as efficiency gains through process modernization and organizational design.

While in industry Alan served as the Controller for a major northern transportation and construction company, Controller for a major Edmonton based transportation company and Controller for a multi-location agriculture/heavy equipment dealer. In additional to accountability for all accounting and finance functions he was also responsible for all IT functions and had direct responsibility for, and program management of, complete ERP system change overs within each organization.

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Carla Madra: Carla is a Partner in the Financial Accounting Advisory practice of Ernst & Young LLP based in Edmonton. Carla is an experienced financial accountant with over 17 years of experience in financial accounting advisory and consultation, finance process improvement and internal controls. Through Carla's career she also lead the finance and human resources team of an Edmonton based private company with national operations.

Carla is passionate about giving back to the Edmonton community and has volunteer with many local organizations. Carla is currently fulfilling her second three year term on the Board of Governors of NorQuest College and chairs the Audit and Finance Committee. In addition, Carla fulfilled two three year terms, which concluded in June 2017, with the Mental Health Foundation as the Treasurer of the Board of Trustees.

Carla and her husband of 17 years reside in Edmonton with their young daughter. Together the Madra family enjoys skiing, travel and attending music concerts.

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Agenda

Introduction

- EY's Intelligent Automation journey
- What is robotic process automation (RPA)?
- Benefits of RPA

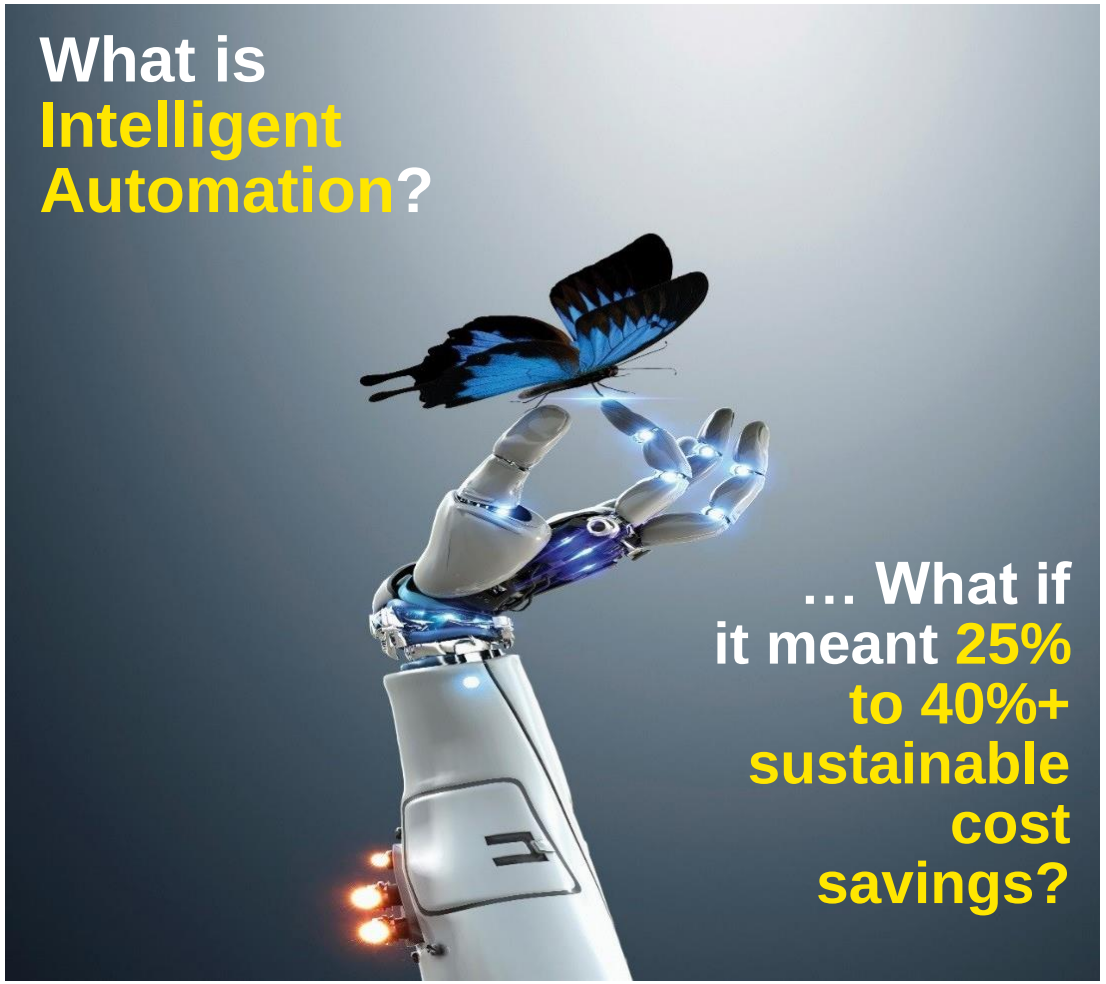
Where RPA can play

- Suitable processes for implementation

How to get started

- Approach and typical timeline
- Criteria for identifying a pilot

Lessons learned and roadmap



Putting Intelligent Automation into context

***What** you do is defined by your Integrated Business Events…*

- Customer interactions
- Vendor interactions
- Finance functions
- HR functions
- Data processing
- Regulatory reporting

***How** you do it is enabled by your systems and tools…*

Custom Developed Applications

***Who** does it is the value proposition of Intelligent Automation*

What are the components of Intelligent Automation?

Digital Worker

Robotic Process Automation “RPA”

- Entering data into systems
- Processing data in Excel
- Sending emails
- Comparing data sets

Digital Reader

Cognitive Automation

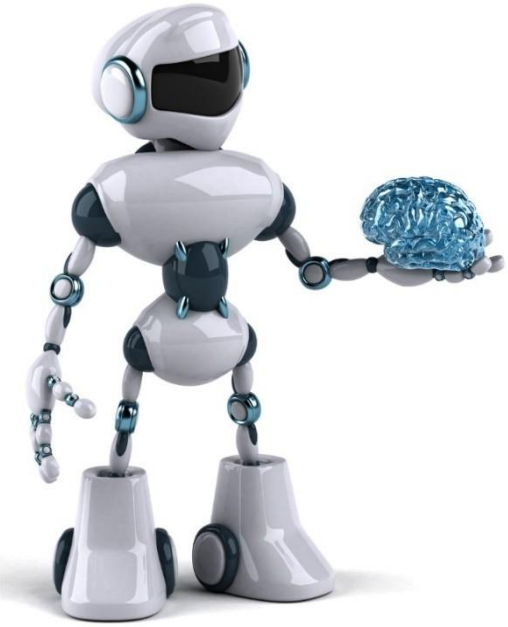
- Machine learning
- Keyword-base recognition
- Unstructured to structured translation

Digital Talker

Chatbots

- Communication focused
- Predictive Behavior
- Text and Voice

Digital Thinker



Classic “AI”

- Algorithm driven insights
- Predictive Analytics
- Big Data focused

EY's Intelligent Automation Journey

Three years ago

- Multiple proof-of-concepts across the business
- Struggling to get services live participation
- Little coordination globally
- But pockets of excellence in parts of business (e.g., Internal Operations)

Today

- We believe we have the third largest **dynamic virtual** workforce of any company
- **> 1000 bots** in production today
- At least one process live per week
- Every part of EY (tax, audit, consulting and internal operations) implementing RPA
- **Mature delivery capabilities** support through on-shore and off shore resources

Where we are going

- Aim to be the largest number of processes automated of any company (1000s)
- 1000 FTE+ in our Automation Center-of-Excellence
- Fundamentally different services and people roles across tax, audit, consulting
- Digital and cognitive capabilities embedded in key processes and services
- Industry specific solutions delivered

RPA definition

RPA is an innovative solution for a fully automatic handling of business processes with high volume repetition

What is

RPA?

RPA is integrated in an existing IT infrastructure

RPA simulates an employee

RPA is software

How does RPA work and what are the key features?

How does RPA work?

RPA uses software to **execute business processes** in a repetitive, audited and controlled manner

It **orchestrates existing legacy applications** for transaction processing, data manipulation, response triggering and communication

It does all of this with **very limited human participation**

What are the key features that define RPA?

Robots are a virtual workforce **controlled by the business**

They sit alongside existing infrastructure, which is **governed and supported by IT**

Robots automate **low value or repetitive tasks** where humans add little or no value

Processes can be **automated by business users** with little IT knowledge

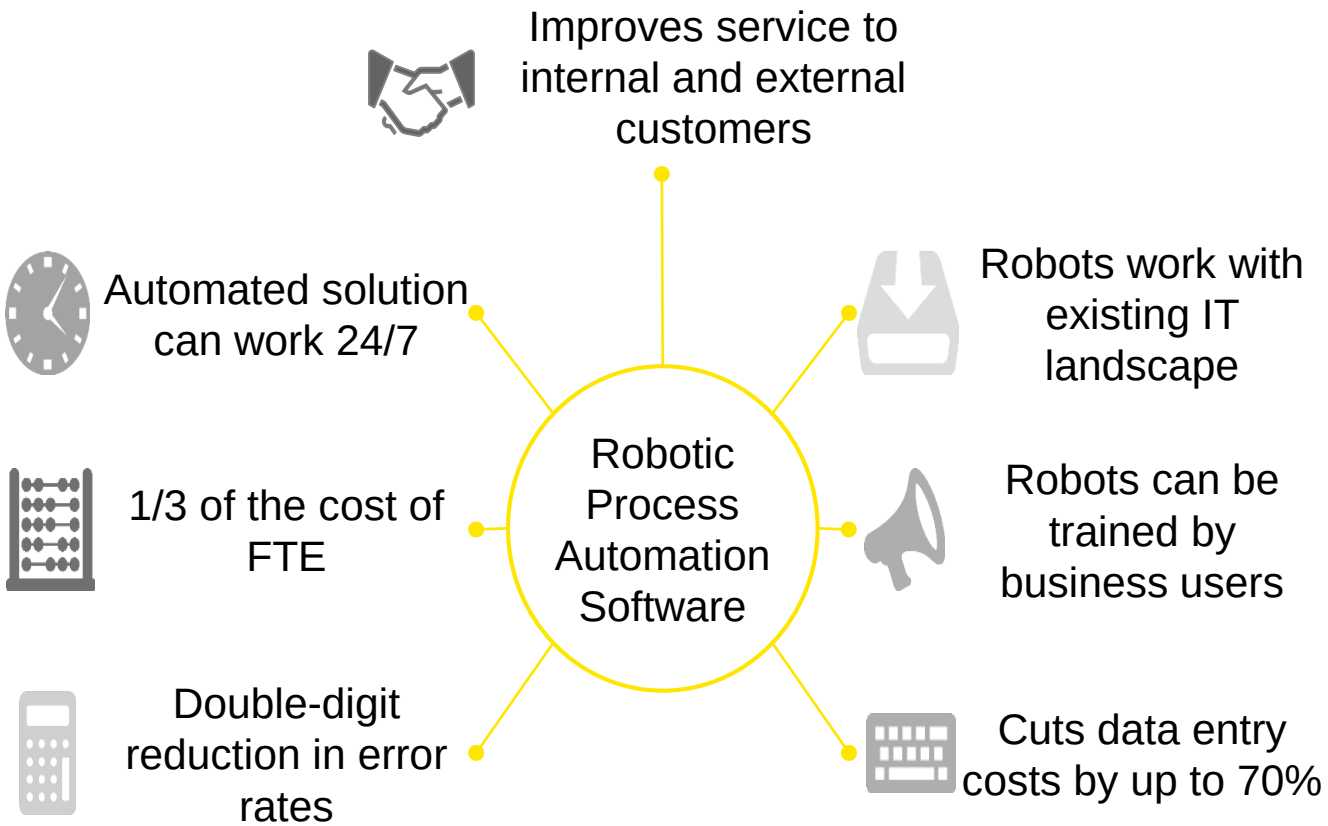
Robots automate as-is, with **no changes required to existing systems or processes**

Processes are executed with a **full audit log**, in a **centrally monitored secure** environment

Benefits of RPA

Robots deliver repetitive, deterministic, high-volume tasks efficiently, quickly, and consistently.

People build relationships, provide subjective judgement, deliver low-frequency tasks, and manage change and improvement.

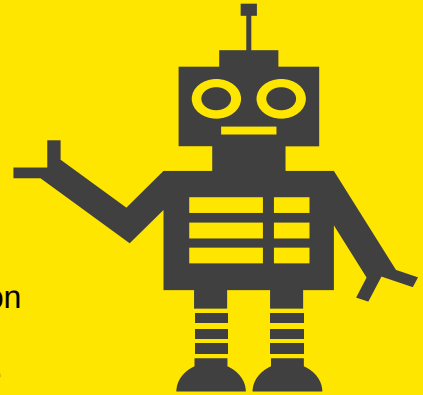


Benefits of RPA

Low risk

Non-invasive technology

Overlaid on existing systems and integrated with existing data minimizing disruption to existing IT strategy and architecture. Automation technology can begin with simple rules based tasks and scale to more sophisticated algorithms and machine-learning functions as the organization matures.



Accuracy
The right result, decision or calculation the first time

Consistency
Identical processes and tasks, eliminating output variations

Cost savings

Ranging from 20-60% of baseline FTE cost

Right shoring
Geographical independence reduces need to offshore jobs while still delivering cost savings

Productivity
Freed up human resources for higher value-added tasks.

Cross-system
Across systems since it works through the user interface layer

Reliability
No sick days, services are provided 365 days a year

Audit trail
Fully maintained logs essential for compliance

Retention
Shifts towards more stimulating tasks

Scalability
Instant ramp up and down to match demand peaks and troughs

ROI
Typical RPA projects include multiple functional “pilots” but the program is completed in 9 to12 months with an ROI < 1 year

RPA can benefit your organization and fit into your operations in many different areas

Data entry

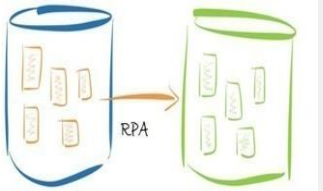
We have many processes which require keying in the same data in different applications because of their shortcomings. RPA can help avoid double keying.

Process automation

RPA can help automate 30 to 80 % of your stable repetitive processes, allowing your people to shift their focus to value-added activities

Quick platform integration

RPA allows you to integrate any possible user interface quickly (web, mainframe, etc.) negating the need for any major changes to your existing systems



Data migration

RPA allows you to migrate data quickly and safely from one application to another without involving classical methodology.

Identifying the most suitable scope of processes for implementation is key to unlocking the full value of RPA

Process characteristics to consider for RPA

- High-volume repetitive transactions
- High levels of manual data capture and entry
- Interaction with multiple applications or systems
- Multiple tasks to perform a process
- Definable business rules and exceptions

- Data entry, validation and manipulation
- Data transfer between applications
- Automated formatting
- Copy-and-paste operations
- Login and logout of applications and emailing

Activities typically performed by RPA

The application scope is broad — penetrating' for example' finance and accounting, human resources, IT and supply chain

F&A

- Sales order
- Order to cash
- Tax
- Incentive claim
- Record to report
- Vendor setup
- Trend tracking

60% reduction in cost to process invoice

HR

- Payroll
- Benefits administration
- Pay slip management
- Time and attendance management
- Recruiting process
- Education and training
- Compliance reporting

80% Reduction in payroll processing cost

Supply chain/S2P

- Master data management
- Source to Pay
- Work order management.
- Demand and supply planning
- Quote, invoice and contract management
- Returns processing
- Freight management

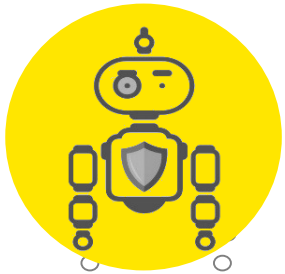
9%–20% of the cost to companies arises from supply chain problems

IT

- Installation
- File transfer protocol download, upload and backup
- Server application and monitoring
- Synchronizing, deleting and emptying folders
- File and email mgmt.

30% of the time spent by IT is often on low-level tasks

Three core objectives to kick-start an RPA program



8–12 weeks

Complete RPA pilots

- **What:** three targeted automation pilots using a robotic software
- **Why:** core objectives are to learn about RPA, acquire firsthand experience, prove the value/benefit of RPA and assess the performance of both vendors
- **Scope:** the pilots should seek to automate low-complexity tasks across a representative sample of the overall enterprise

Establish operating model

- **What:** the framework for implementing and operating RPA as a capability to enable value and mitigate risk at scale
- **Why:** RPA is a business capability that requires coordination across organizational lines and necessitates a balance of business enablement with oversight
- **Scope:** the operating model covers all business units, the central RPA program and supporting functions in its initial, transition and steady states

6-8 weeks

Develop road map

- **What:** the set of activities for both the current and intermediate phases to facilitate the progress of the RPA program
- **Why:** the road map clearly lays out the sequence of steps required for executing the operating model and aligns involved groups
- **Scope:** the road map primarily applies to the activities of the central RPA program, but will also designate activities involving business units over the next wave of development

There are a number of factors to consider when assessing processes for automation

Value Drivers

- Efficiency gains
- Cost avoidance & quality management
- Growth acceleration
- Cycle time & coverage improvements
- Customer service improvements

Suitability Drivers

- Deterministic (rule-based)
- Digital data
- Size of team
- Clear accountabilities
- Low process complexity
- Low cadence of changes
- Data quality/errors
- Regulatory constraints
- Current automation
- Many location dependencies
- High operational risk
- In-flight transformation

Lessons learned

The five key RPA challenges

Overcoming “automation anxiety”

- Brand perception of ‘Robotics’
- Fear and job uncertainty surrounding RPA
- Lack of case studies to showcase value

Achieving consistency with tailored local adoption

- Varied change approach due to varied impact
- Achieving consistent functional RPA change approach

Fragmented impact

- Specifying value and impact as only parts of process automated
- Understanding future workflow and handovers due to fragmented impact

Coping with fast pace of transition

- RPA can progress rapidly from proof of concept to implementation
- 12 weeks not 24 months of typical technology implementation

Defining evolving responsibilities and accountabilities

- Knowledge gap where roles change
- Defining accountabilities and responsibilities

Case study: RPA Proof of concept

Diversified Family Business Group

Month end consolidation

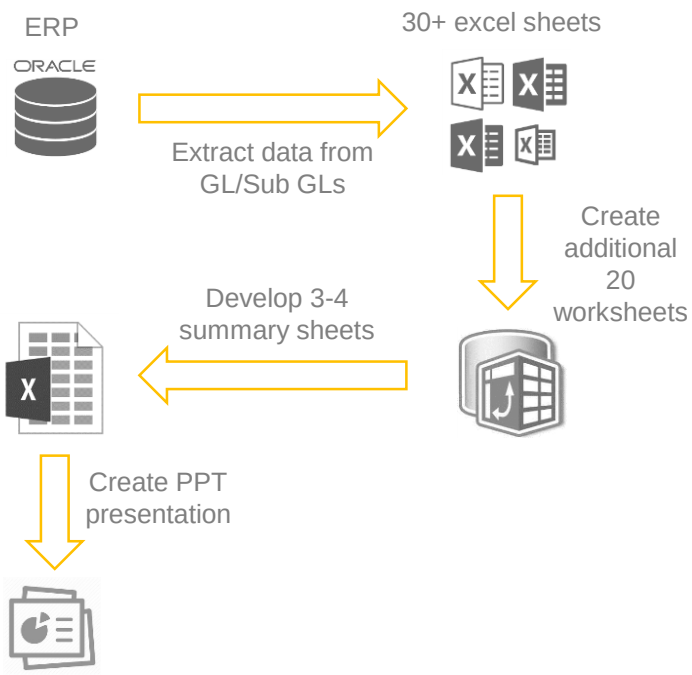
- The Client is a diversified family business group with 30+ entities
- Month end consolidation of financial data is required for all entities, which is a complex, manual process and takes 3 - 4 days of effort by 2 FTE's.

Time taken - current process	3 - 4 days
Time take after automation	15 minutes
Total FTEs	2

Next steps:

- Automate the complete process
- Develop business case for RPA implementation in the finance function
- Develop program to train staff on new processes

Current Process Summary:



Key Highlights

1 FTE saved

80% process automated

Processing time

15 minutes

Other benefits

- Bot can complete consolidation in **15 minutes** as compared to 3-4 working days
- Significant time savings (**up to 80%),** giving staff time to focus on more subjective tasks
- **Reduction in errors** (Removing creation of 20 excel sheets from the process)

T106 (Canadian Transfer Pricing)

Actual results of a Calgary automation project

- Reduced processing time from **26 hours to 19 minutes**
  - At scale, 170 hours to 30 minutes
- Standardizes and optimizes process for automation re-use across geographies
  - **Reduced processing steps by 75%,** leveraging Excel Power Query to assist with mass data gathering and manipulation
- **Bot** focuses on **data collection**; **humans** focus on **data validation**
- Intelligent exception handling built into the bot script
- Improves process visibility and quality control

Shifting from human managed to automation managed by humans

Automation road map
How to get started

1. Assess current state
What are your pain points and your target end-to-end processes?

3. Evaluate automation technologies
Robotics (RPA), Excel, etc.

5. Implement road map
Initiate automation journey.

4. Costs and benefits
Is there a business case? Identify quick wins.

2. Evaluate manual processes
Can your current process be improved and automated?

Questions?

What would you like to know?

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