Process Automation Evolution

From RPA to Intelligent Workflows

CURRENT & EMERGING TECHNOLOGIES CONFERENCE

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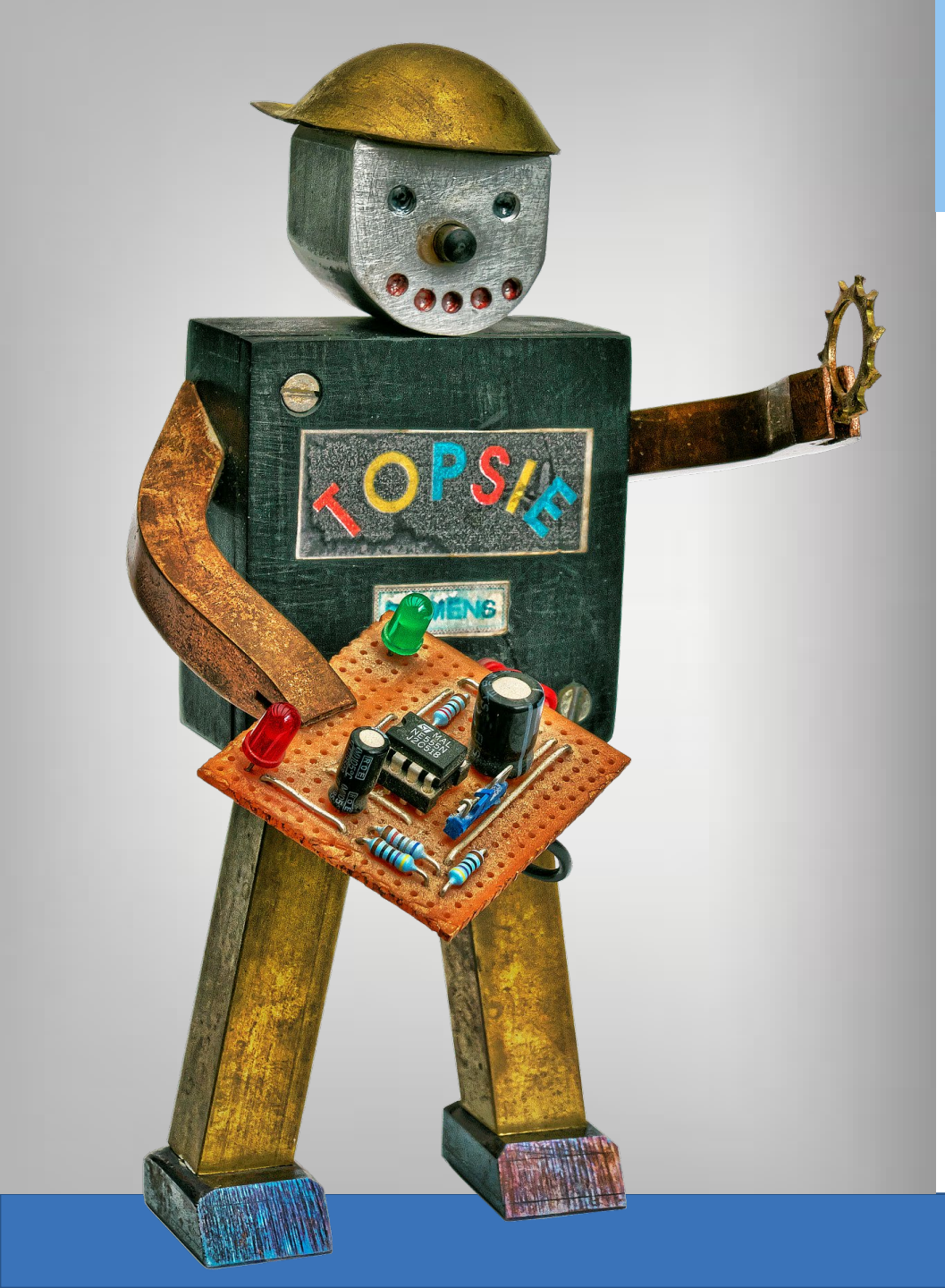
ncaCPA®



At LakeTurn Automation, we build custom AI-powered software robots that automate time-consuming, repetitive tasks within organizations. These automations result in increased productivity, improved accuracy, decreased costs, reduced operational risk, and, most importantly, empowered employees who provide improved customer experiences.

Visit us at **www.LakeTurnAutomation.ai**

TOPICS

- WHY AUTOMATE?
- HISTORY OF PROCESS AUTOMATION
- INTELLIGENT AUTOMATION (IA) OVERVIEW
- ROBOTIC PROCESS AUTOMATION (RPA)
- WHAT ARE AI AGENTS?
- FOUNDATION FOR THE FUTURE (STRATEGY)
- WHERE TO START (EXECUTION)
- WRAP UP / Q&A

Why Automate

Warning: The following presentation contains mild accountant-related humor. Any resemblance to actual accountants (looking at you, Glen) is purely coincidental and in good fun. No expense reports or accountants were harmed while making this video.

PROCESS AUTOMATION

HISTORY

History of RPA / Future of Automation

95% Today

95% by 2028

2015

Fortune 500

Large deployments:
Banking, Insurance,
Healthcare, etc.

2017

Global 2000

Expansion Continues:
Retail & Hospitality,
Energy, Mfg., CPG

2019

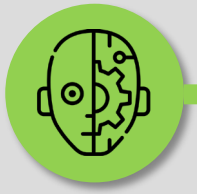
Mid-Market

Large Employers
All sectors.

2021

SME

Employers with 10-1,000+
employees.
All sectors.



2025+

Intelligent Automation

All Organizations
RPA *plus:*
- AI (ex. ChatGPT, IDP)
- Computer Vision
- Machine Learning
- OCR / Handwriting Rec

AI AGENTS

IA *plus:*
Reasoning
Memory
Context
Multi-Modal
Think, Plan, & Take Action

On-Premise
Entry Cost: $$$,$$$ ↑

RPAaaS
Entry Cost: $,$$$ ↓

INTELLIGENT AUTOMATION

AUTOMATION

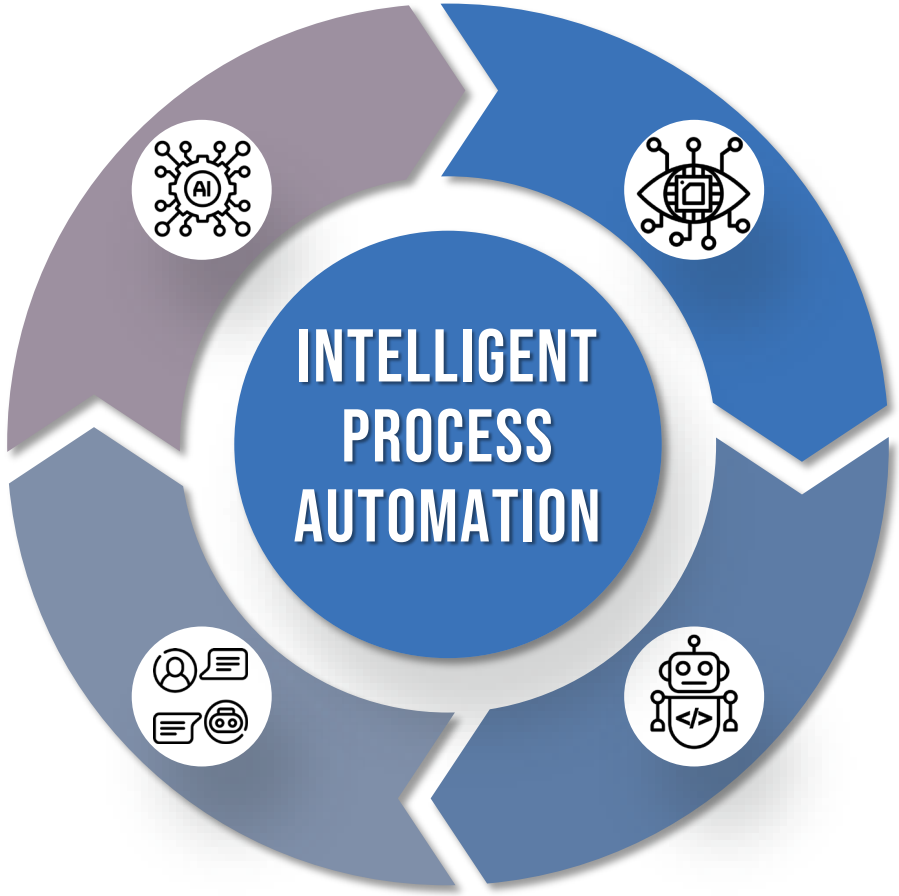
What is Intelligent Process Automation (IA)?

Intelligent Process Automation (IPA) combines **Robotic Process Automation (RPA)** with **Artificial Intelligence (AI)** and other technologies to create workflows that don't just function automatically, but also think, learn, and improve without human intervention.

AI & MACHINE LEARNING

Thinking & Learning

Generative AI (OpenAI, Google, Anthropic, Perplexity)
AI Agents
Machine Learning (DataRobot)



COMPUTER VISION

Vision

Optical Character Recognition (OCR)
Intelligent Document Processing (Intellidocs)
Multi-Modal AI -> Image and Video Analysis

NATURAL LANGUAGE PROCESSING

Language

Custom/Private Intelligent Chatbots (LangChain + OpenAi)
Sentiment Analysis
Speech Analytics

ROBOTICS & SMART WORKFLOWS

Execution

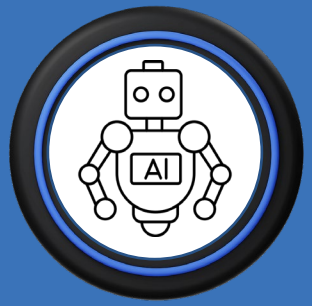
Robotic Process Automation (ElectroNeek, Ui-Path, Power Automate)
Low-Code Automation Platforms (Processio, IntegraBots)
Cloud Automation Platforms (Zapier, Make)

What is Robotic Process Automation?

- RPA is an automation technology that allows the elimination of repetitive manual tasks in a digital environment. To do so, it employs bots, software programs that operate at the system and User Interface (UI) level to mimic human employees' actions to perform various assignments.
- RPA bots can interact with a multitude of systems and technologies and do almost anything if their task is rule based.

  Some of their basic skills are as follows:

  - Manipulating files and folders
  - Launching and terminating apps
  - Extracting data from documents via OCR
  - Querying databases
  - Transferring data between systems
  - Making calculations
  - Typing and filling in forms
  - Sending emails and SMS
  - Enhanced Excel /Google Sheets features
  - Interacting with any website and/or cloud based application via the UI
  - Interacting with any Windows based application via the UI and at the system level
  - Interacting with the AS/400 via IBM Personal Communications 5250 emulator
  - Interact with VM's (Citrix, VMware, Hyper-V)
  - Extended automations via API's, webhooks chatbot platform integration and Zapier.
  - Advanced automations using JavaScript



JOURNEY TO AI AGENTS

AUTONOMOUS

What is an AI Agent?

- **Definition:** An AI agent is a software application that uses artificial intelligence to perceive, analyze, and act on tasks independently, often simulating decision-making and learning capabilities.
- **Key Capabilities:**
  - **Autonomous Decision-Making:** Can evaluate situations and choose the best course of action without human intervention.
  - **Learning and Adapting:** Utilizes machine learning to improve over time based on patterns and feedback.
  - **Multi-Tasking:** Handles complex workflows that go beyond repetitive, rule-based tasks.
- **Difference From RPA:**
  - While RPA follows pre-set rules, AI agents use intelligence to solve problems, even in dynamic or unpredictable scenarios.
  - AI agents will enhance RPA workflows by adding intelligence and adaptability, enabling automation to handle dynamic scenarios, process unstructured data, and make informed decisions.

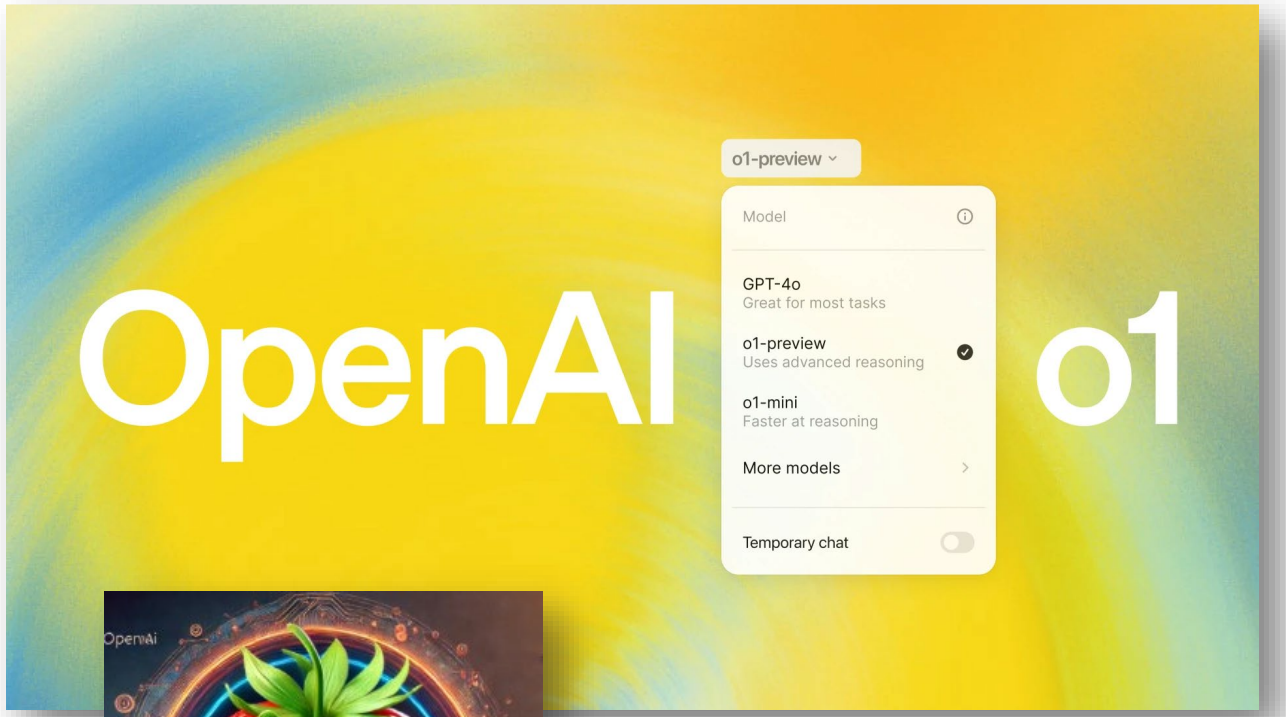
Gartner Names Agentic AI Top Tech Trend for 2025. Research firm Gartner has named Agentic AI the top tech trend for 2025. The term describes autonomous machine "agents" that move beyond query-and-response generative chatbots to do enterprise-related tasks without human guidance.

Closing the Math & Reasoning Gap - OpenAI o1

Per OpenAI :

"A new series of AI models designed to spend more time thinking before they respond. They can reason through complex tasks and solve harder problems than previous models in science, coding, and math.

Performance exceeds human PhD-level accuracy on a benchmark of physics, biology, and chemistry problems (GPQA). While the work needed to make this new model as easy to use as current models is still ongoing, we are releasing an early version of this model, OpenAI o1-preview, for immediate use in ChatGPT."



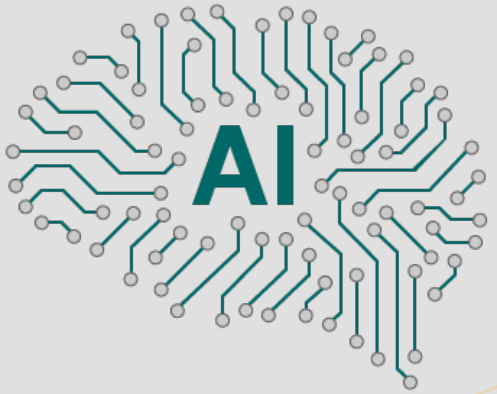
*** Limited to Text Input Only**

- Not multimodal (no vision)
- No document analysis

Math Sample Results - OpenAI o1

ChatGPT 3.5

If it takes 1 hour for a single shirt to dry in the sun, how many hours will it take 5 shirts to dry?



GPT RESPONSE: 5 Hours

ChatGPT o1

The sum of the ages of Nicole and Kristin is 32. In two years, Nicole will be three times as old as Kristin. How old is Kristen now?

GPT RESPONSE: 7 Years Old

Accounting Sample Results - OpenAI o1

ChatGPT o1

At the beginning of the year, Smith Co. reported assets of $500,000 and liabilities of $375,000. During the year, they did not pay dividends, they had $83,000 in sales, and $65,000 in expenses. Smith Co. had an increase in total assets of $25,000 and their liabilities decreased by $3,000. What was the amount of common stock issued during the year?

GPT RESPONSE: $10,000

Jason Staats, CPA
on OpenAI o1

"For the first time, I'd say we have an AI operating at staff-level capability on most of the accounting tasks I've thrown at it.

… I see immediate utility as a first-level accounting reviewer. It's calling out technical errors that are put onto seniors' desks every day by staff and junior bookkeepers.

… Hard to say today how this impacts workflows, but we're 1, maybe 2 model evolutions (6-9 months) from LLMs taking over the bulk of bookkeeping quality assurance.

We are very close to the autonomous AI Agent tipping point (ex. full-auto bank recon)."

FOUNDATION FOR THE FUTURE

STRATEGY

Organizational Imperatives for Preparing for AI

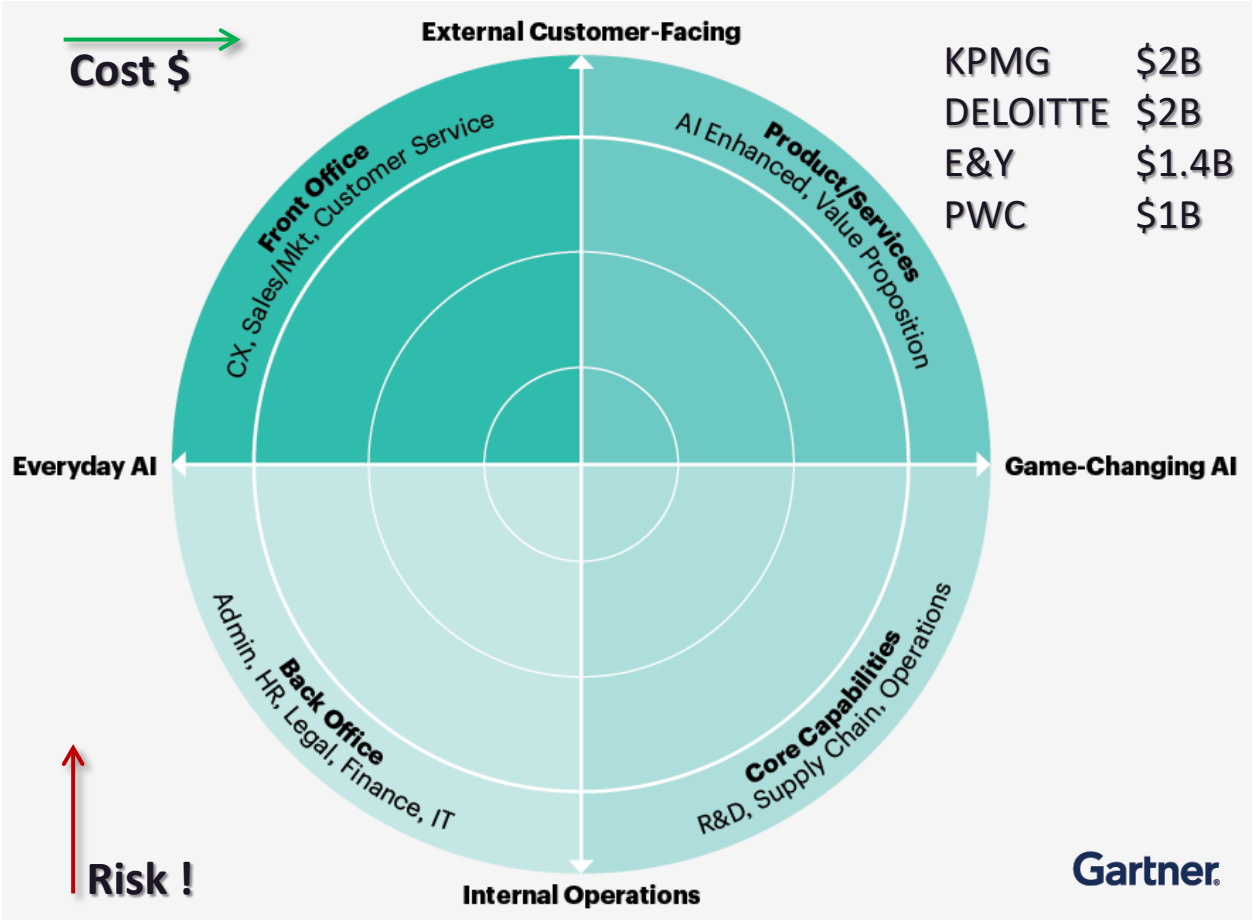
1. Foundational Policies & Guidelines
- Gen AI use Policy
- AI Legal & Ethics Guidelines
- Bias & Discrimination Prevention

2. Cultural Readiness
- Establish AI Literacy with ALL Employees
- Make Leadership AI Ambassadors
- Build / Train Cross-Functional Teams

3. Skills Readiness
- Educate the Executive Team
- Train and Upskill Key Employees (AI SMEs)
- Technical Employee Retraining
- Development for Replaced Tasks & Workers

4. Data Readiness
- Capturing & Tagging
- Storing & Security
- Ensuring Cleanliness

5. Getting Started – AI Jumpstart
- Identify AI Readiness Gaps
- Find High-Impact AI & Automation Initiatives
- Develop a Short-Term AI & Automation Strategy
- Review Adjust & Iterate



Automation & AI Deployment – Best Practice

Automation / AI Maturity Model

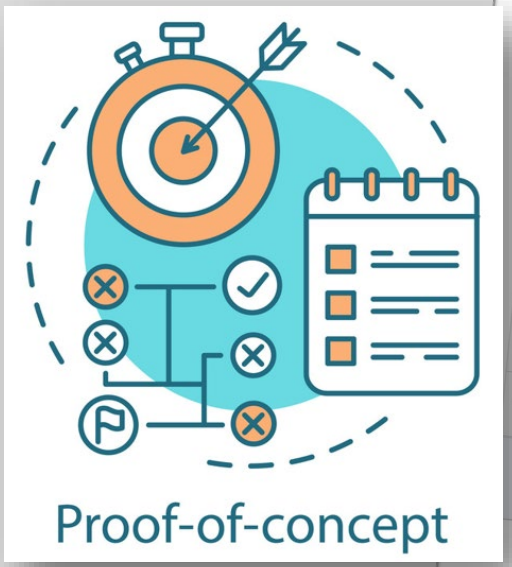
Program Stages

WHERE TO START?

EXECUTION

How to Get Started with Automation

- Conduct a quick first automation with IA/AI – a PoC Pilot.
  - Organization: low-risk proof that real benefits are attainable
  - Stakeholders: how IA works & visibility to benefits at scale
  - Employees: experience with AI, bots, and automation benefits
- What to look for when selecting a process for the PoC Pilot:
  - Low Risk and Complexity
  - Rules Based
  - Manual and Repetitive
  - Structured Data
  - Digitized Input
  - High Volume / Frequency
  - Mature & Stable Process
  - Measurable Effects



ROBOTIC PROCESS AUTOMATION
Process Assessment Scorecard

LTA LAKETURN AUTOMATION

This template can help your organization decide whether a process is a good candidate for RPA: Robotic Process Automation. Complete the form, including offering your assessment of where the process falls on a scale of 1 to 5 in the key characteristics listed.

Process Name	
Detailed Description of Process and why it is being considered for RPA	
Post-Automation Goals (ex. error reduction, FTE savings, time savings, increase capacity, etc.)	

PROCESS ATTRIBUTES	PROCESS RATING SCALE	SCORE (1 to 5)	ADDITIONAL NOTES / DETAILS
Primarily rules-based, or many exceptions requiring human judgment?	Rate your organization's process on a scale of 1 to 5 for this attribute. A score of 5 describes a process that follows strict rules that don't often require independent human judgment; a score of 1 describes a process that often needs human judgment.		
Manual and repetitive?	A score of 5 describes a process that is highly repetitive and manual; a score of 1 describes a process that is not often repetitive.		
Structured or unstructured data?	A score of 5 describes a process where most or all of the process's data is in a structured format (i.e. input is always formatted the same) and is easy to digitally analyze; a score of 1 describes a process where most process data is unstructured.		
Inputs are already digitized and readable?	A score of 5 describes a process where the process inputs are digitized and easily readable by computer systems (ex. database, desktop app, Internet, Excel, Word, e-mail, .PDF, etc.); a score of 1 describes a process where many inputs aren't digitized.		
High volume/high frequency process?	A score of 5 describes a process that is high volume or high frequency within the organization; a score of 1 describes a process that is low volume or low frequency.		
Mature and stable process, or one that frequently changes?	A score of 5 describes a mature process that has existed for a while within the organization and doesn't often change; a score of 1 describes a newer process or one that changes somewhat frequently.		
Current process error prone?	A score of 5 describes a process that is prone to human error; a score of 1 describes a process that experiences few errors.		
Employees' skills transferable?	A score of 5 describes a process where the talent and skills of employees who perform the work could be easily transferred to other tasks within the organization; a score of 1 describes a process where those employees' skills could not be easily transferred to another task.		
Measurable effects?	A score of 5 describes a process where the positive or negative effects of automation would be easily measurable in terms of time to complete a process, error rate, etc.; a score of 1 describes a process where effects would be difficult to measure.		
	TOTAL SCORE		36+ Process is a good candidate for automation 27-35 Process might be a candidate for automation (consult LTA team) 0-26 Process unlikely to be a good current candidate for automation

Page 1

F&A Automation Potential

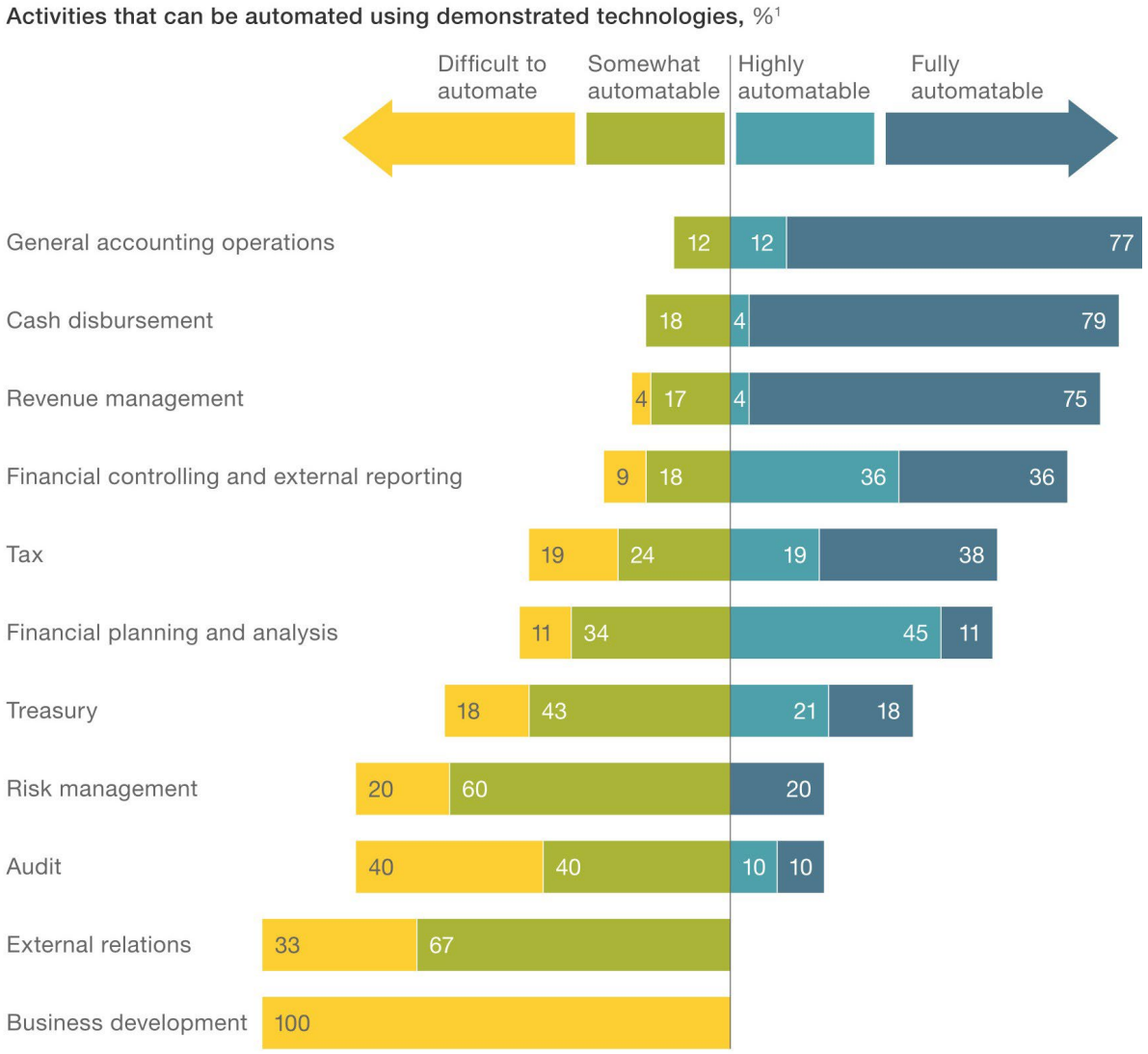
According to a study conducted by their Global Automation Research Institute, McKinsey & Company found that RPA and AI can fully automate 42 percent of finance activities and mostly automate a further 19 percent.

The chart at right shows automation opportunities by Finance & Accounting functional areas.

Transactional activities are the most automatable, but opportunities exist across most subfunctions.

"Automation is reshaping the future of work in the finance function, and the opportunity to boost performance will fuel the trend. Adapting to disruption is challenging, but CFOs who build a clear perspective on the nuances of the automation journey will be well positioned to thrive."

"Bots, algorithms, and the future of the finance function" – McKinsey & Company



F&A Process Automation Entry Points

Below is a list of processes in Finance and Accounting that are highly suited to RPA. While specific finance functions will vary by organization, this list highlights some of the typical use case scenarios by area for F&A automation.

Procure to Pay

- Purchase order entry and delivery
- Vendor verification and setup
- Vendor master-data management
- Vendor queries/helpdesk
- Invoice receipt and classification
- Invoice data extraction
- Invoice data entry and interface
- Two and three-way PO/invoice/receipt matching
- Non-PO invoice coding
- Employee expense statements
- Vendor statement reconciliation
- AP accrual journal entry
- Expense compliance audit
- Payment processing

Order to Cash

- Sales order entry
- Customer data setup
- Customer data management
- Billing/invoicing
- Collection activities (dunning)
- Cash application
- Credit risk management
- Dispute verification and resolution
- Chargeback management

General Accounting

- General ledger and subledger reconciliations
- Bank reconciliations
- Inter-company reconciliations
- Manual journal entries
- Reclassification journal entries
- Fixed asset accounting
- Inter-company settlements
- Financial close activities
- Cost Accounting

Tax, treasury and compliance

- Data aggregation for tax liability
- Convert data to tax bias
- Complete tax return workbooks
- Prepare tax returns
- File tax returns and payments
- Tax accounting entries

Public Accounting Targets

- Client Document Collection/Mgmt
- Client Deliverable Status Updates
- Schedule & Assign Client Work
- Client Communication Mgmt.
- Onboarding New Clients
- Timekeeping Compliance
- Tax Return Data Entry
- Connecting Disparate Systems
- Compliance & Back Office Work

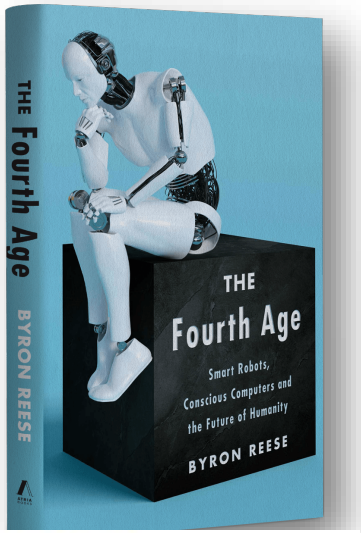
Financial planning, analysis and reporting

- Data aggregation for reports
- Report preparation and distribution (including below)
  - Trial balance and balance sheet
  - Profit and loss
  - Cashflow
  - Variance analysis
  - Management reports
  - Statutory/regulatory reports

Data & Systems Integration

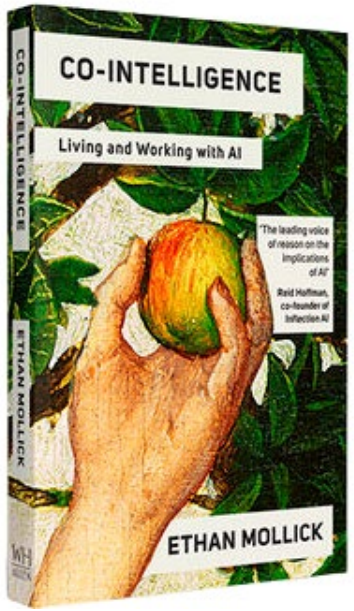
- Data conversion
- Data migration & entry
- Data updates
- Data validation
- Data cleansing
- Extracting data from .PDF's
- Synchronizing systems (ex. ERP and CRM)
- Updating scorecards

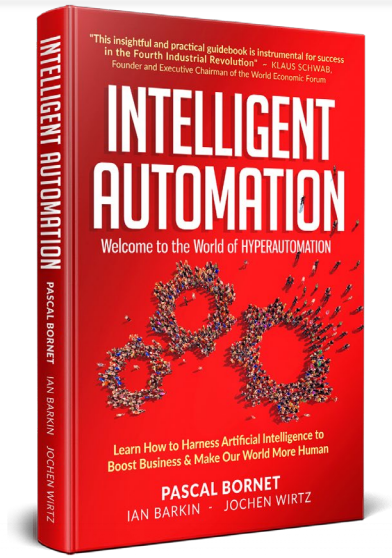
Wrap Up

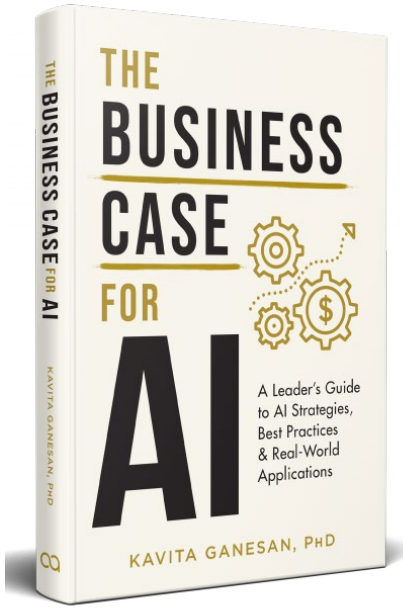


Top 5 Takeaways from our Time Together

1. **Leverage Intelligent Automation for Smarter Processes**
   Combine RPA and AI to build workflows that think and improve efficiency.
2. **Prepare Your Organization for Change**
   Success requires alignment in policies, culture, and workforce skills.
3. **AI Agents Are Coming- Manage Expectations**
   AI agents will be heavily marketed in 2025 but may underdeliver initially; focus on incremental value and realistic use cases.
4. **Plan Before You Automate**
   A solid strategy ensures your automation initiatives drive sustainable value.
5. **Start Small, Scale Strategically …but above all, Start!**
   Begin with low-risk, high-impact processes and expand gradually; don't wait – automation is no longer optional.



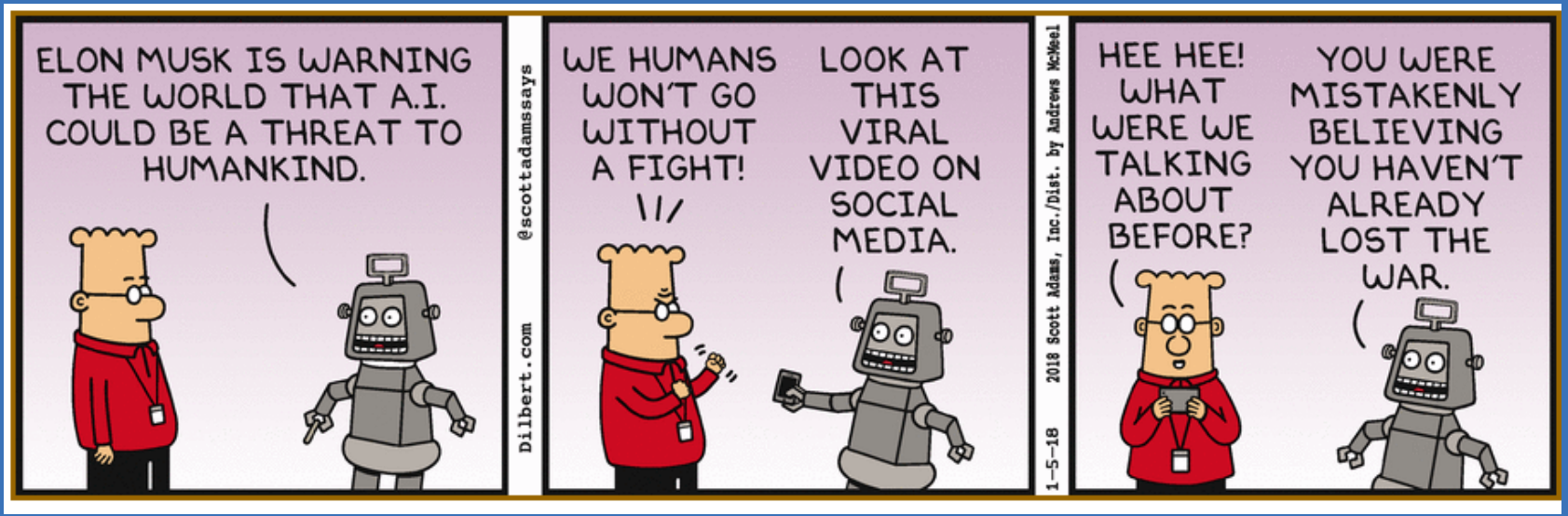




Great Reads & Resources!

- **The Fourth Age** by Byron Reese
- **Intelligent Automation** by Pascal Bornet
- **Co-Intelligence** by Ethan Mollick
- **The Business Case for AI** by Kavita Ganesan
- Follow **Jason Staats** and **Ethan Mollick**

DISCUSSION / Q&A



LTA LakeTurn Automation

Advancing Work with the Power of AI™

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